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Co-creating Value in the Age of Digitalised Businesses – Case Study: The Dog Food and Treats Industry

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<p>The purpose of this thesis was to examine if value co-creation, especially through the DART model, was essential for companies to succeed in the dog food and treats industry. The literature review, however, proved the DART model of value co-creation to be old fashioned and therefore not suitable to be used in this study as such. The finding resulted in further research of alternative models, from which the modified version of DART model, DARTT model, was chosen. Additional topics, digitalisation and pet humanisation, were introduced to the study as well, as they turned out as important factors for value co-creation in the dog food and treats industry.</p> <p>The chosen research method for this thesis was the analysis of secondary data, due to its cost-efficiency and the number of studies that already existed and were available for use. The literature review was conducted from sources such as journals, research papers and industry websites. Secondary data was gathered and analysed in order to be able to answer the question; is value co-creation essential for (dog food and treats) companies in order to be able to succeed in the digital age - and if so, how?</p> <p>Findings on this thesis suggest that value co-creation is not essential for companies to be successful, but using a model such as DARTT, could increase a company's competitive advantage in the market. Additionally, value co-creation needs to be carefully executed especially in the dog food and treats industry, as the relationships between dogs and their owners are multidimensional.</p>	
Keywords	Digitalisation, digital transformation, value co-creation, dog food and treats industry

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1 Introduction

Digitalisation, value co-creation and pet humanisation are topics closely related to each other, but yet there are no previous studies including all three keywords. Due to industries' digitalisation, it has become almost crucial for the companies to be more creative in the ways they reach, connect and sell to customers. As digitalisation has been normalising, companies have been able to take on digital transformation which has brought a manifold of opportunities to improve their practices towards more sustainable business models, value co-creation being one of the tools.

This study aims to connect any aberrant dots between digitalisation, value co-creation and pet humanisation in the dog food and treats industry. For instance, reliable research about value co-creation in the dog food and treats industry is slim and the number of papers about pet humanisation's impact on business is surprisingly quite minimal. Digitalisation, however, has been generously studied, but its impact on value co-creation or on the dog food industry has merely been limited to blog posts and articles.

The purpose of this thesis was to find how value is co-created, especially through the DART model, in the dog food and treats industry. The literature review, however, proved the DART model to be old-fashioned and therefore not suitable for the purpose of this study. It resulted in further research of alternative models, from which the modified version of DART model, DARTT model (see Figure 5: page 23), was chosen. Digitalisation and pet humanisation were included to the study as well, as they turned out to be important factors for value co-creation in the dog food and treats industry.

In this thesis, the topics will be reviewed through a literature review, followed by an explanation and justification of chosen research methods and a chapter dedicated to results will show findings based on the literature review and lastly a conclusion of significant findings as well as research quality evaluation and recommendations for future research.

1.1 Justification

It is apparent, that the dog food industry differs from others in many ways, and with the rise of digitalisation, value co-creation has become an important instrument for companies. Additionally, the important phenomenon of pet humanisation fortifies the fact that dog food and treats companies must work in a different way compared to human food companies, for instance.

Previous research regarding the relation between the topics of this thesis is quite slim, and therefore expanding on earlier research is justified, as answering questions could bring valuable insight to companies in the industry or any individual interested in the topic.

1.2 Significance

Out of the pet food market, dog food has the largest market share worth over 72 billion EUR. (see Figure 2: page 18) As "Digitalization has permanently altered product and service delivery, markets and customers" (Rantala et al. 2017: 627), the dog food and treats industry has experienced the effect of those factors as well. Services are moving towards more digitalised solutions and the markets have changed due to e.g., an increased number of brands. This is affecting the customers, but they are changing the industries too – demanding transparency and better prices, companies must keep up and alter their offerings to suit better the modern markets. As the traditional demographic segmentation doesn't apply to dog owners (Boya et al. 2012: 141), companies in the industry have had to find solutions and utilise models, such as DARTT (see Figure 6: page 23), to maximise their efforts and become successful.

2 Literature Review

The following chapter assesses the existing, available literature on the dog food industry, its digitalisation, as well as value co-creation in general, in the dog food and treats business and how it can be utilised. The literature review will provide this thesis with evidence of the current state of the dog food and treats industry and how digitalisation has affected it, especially when looking at value co-creation, and how all the topics relate to each other. Theoretical magazines, industry newspapers as well as research papers and articles are employed to find the affiliations between the topics in question. While the focus will be on finding out if value co-creation is essential in the digital age, an additional focal point will be digitalisation's impact and pet humanisation's significance on the dog food and treats industry. The theory-part of the chapter will discuss the outcome of the literature review and how the research question can be answered through the reviewed literature. The limitations of the literature are noted as well.

2.1 Dog food and treats industry

An Analysis of the Pet Food and Treats Industry by Carrigan et al. (2014) is a short overview of the industry, which studies the economic and strategic issues faced in the industry. Their goal is to provide the reader with up-to-date information on how to become a stronger competitor in the pet food industry by applying Porter's Five Forces (1980). The research has been done by gathering secondary data and using in-depth interviews that have all been inspected with all of Porter's Five Forces. Even though Porter's original model of Five Forces has been around for decades, it has not lost its relevance and still is therefore a good, valid way to analyse an industry such as this. Each of the Five Forces have been carefully studied and conducted. Philips et al conclude their research: "Overall, the pet food industry can be considered a stable but very competitive industry", which in its brevity does not say much. The studied geographic area is narrow as well as the topic, which creates limitations to this study. In the study, the researchers have studied the pet food and treats industry, which includes wet and dry dog and cat food as well as both species' treats. This limits some of the findings and conclusions as dog and cat food have been studied together, instead it being one or another. Another problem this particular study portrays is that the geographical area is

limited to one nation. Although it is geographically not too large, it is the largest market in the industry currently.

The Pet Food Industry: An innovative Distribution Channel for Marketing Feed Products from Welfare Friendly Production to Consumers? by Pirsich et al. (2017), examines pet owners' attitudes towards welfare friendly production, with a chapter dedicated to a view of the German pet food market. As it is only discussed in one chapter, it gives a limited overview of the market and should be carefully cited as the topic of the researchers' study is not the dog food and treats industry. In addition to that, Pirsich et al. argue that cats and dogs are considered carnivores and therefore "...have essential requirements for high quality protein and amino acids, which are mainly found in meat", this argument contradicts studies (Boch et al. 2014, Hand et al. 2010) that have established dogs to be omnivores. Even though the study comes with its limitations, it can still give the researcher a short, but helpful overview of the pet food market in Germany.

In *Natural food for domestic animals: A national and international Technological review* (Viana et al., 2020), the researchers identify pet food industry trends that have been affected and driven by positive socioeconomical changes in pet owners' lifestyles. The study focuses more on the science behind the food and doesn't concentrate on the industry, but the publication gives the researcher interesting insight on the companies in the pet food and treats industry.

The amount and quality of publications of the pet food industry is quite limited. When restricting the research question to only dog food industry, the quality and quantity of publications reduce even further. Online publications from websites such as petfoodindustry.com are more or less abstracts of industry reports conducted by large research companies or industry giants. Even so, they are not to be overlooked. Limited, but high-quality information about the industry trends and statistics can be found from research companies' publications or report previews, such as Euromonitor, Statista, Packaged Facts, etc. which will be utilised by the researcher.

2.2 Pet humanisation

Dotson and Hyatt's (2008) study, *Understanding dog-human companionship*, is a report of a survey in which 749 dog owners were questioned about interacting with their dogs. In the study, the researchers identified "seven underlying dimensions that comprise the construct of dog companionship are identified — namely, symbiotic relationship, Dog-Oriented Self-Concept, anthropomorphism, activity/youth, boundaries, specialty purchases, and Willingness to Adapt." The authors explain the importance of studying the dog-human companionship is high due to the market's growth; "Pet owners' deep caring for their dogs is evidenced by increased expenditures on dog-related products in the US in recent years." (2008: 458) Dotson et al. give a detailed insight on the dog-human companionship, its long history and how it has developed to dogs being considered as family members. As there is a multitude of qualitative studies of the relationship between humans and their dogs as well as statistics of dog ownership and expenditure, the researchers' attempt is to fill the gap with a quantitative empirical study. Dotson et al. conclude their study by noting that dog owners who invest in their dogs and in the relationship in an emotional and financial way, experience the joy of having a dog as a companion on a higher level. (2008: 465) The study doesn't come without limitations, as a major part of surveyed individuals come from the Southeastern US, where the dog population is larger than average. Nevertheless, it gives the researcher a greater understanding of the history and nature of the dog-human companionship in relation to pet humanisation.

Forbes, Trafford and Surie define and explore the concept of pet humanisation in their opinion piece *Pet Humanisation: What is it and Does it Influence Purchasing Behaviour?* (2018) Forbes et al. state their scepticism towards pet humanisation being the driving force of pet food market growth – in their study they aim to better understand pet humanisation's influence and study its relevance and significance through a literature review. In addition, they clarify the concept's effect on purchasing behavior as it is a topic seldomly researched, even though pet humanisation has previously been discussed in academic literature. The researchers claim pet humanisation to surely exist and to have an impact on purchasing behaviour – however, they suggest more research needs to be done "in order to develop an instrument to accurately and comprehensively measure the concept of pet humanisation" (2018: 4). This study will provide the

researcher with a view of pet humanisation's existence and give criticism on the topic, as it must be applied carefully due to multiple different types of consumers.

Contrary to the previous studies mentioned about the subject, Jyrinki and Leipämaa-Leskinen's study (2005) *Pets As Extended Self in the Context of Pet Food Consumption*, analyses the pet-human bond and the psychology behind it. Through quantitative structured interviews on Finnish pet owners in 2003, the researchers aim to find how a close relationship with one's pet possibly affects their consumption behavior. The study offers a possibly outdated view of pet food consumers, as the conclusion includes a statistic of 28% of pet owners seeing their pet as an extension of themselves and the researchers considering it to be a high number, when in a more recent survey 75% of millennials said to consider their pet as their 'fur baby'¹. (Statista, 2020) Jyrinki et al. note to have found that the pet owners who considered their pet to be an extension of themselves were more conscious regarding prices and quality, pleasure giving [through tasty food], self-esteem [through e.g., "being praised for my pet's feeding" (2005: 548)], knowledge and planning pet's feeding. (2005: 548) Although the study was conducted on Finnish pet owners and in 2003, most parts are still relevant and insightful. This study will help the researcher deepen their understanding of the topic and use the psychology behind it to better analyse the industry.

2.3 Digitalisation (and digital transformation)

Skingsley (2019) discusses how digitalisation can affect various parts of the economy in *The effects of digitalisation on the economy*, with remarks to the distinct challenges it brings in the form of machines taking over humans' jobs. In addition, they explain the importance of understanding the development of digital advances, and how it changes over generations. Another problem brought up by Skingsley is how "digitalisation can lead to concentrated product markets" (2019: 6) where the dominant market players gain *too much* power and entry barriers rise for new competitors. Skingsley concludes: "...digitalisation contributes to a new way of producing, pricing and demanding goods and services". Skingsley's speech provides the researcher with a view of digitalisation

¹ Pets, especially dogs, have a tendency to be considered as family members or even children by their owners, to which the term 'fur baby' is suitable for, and therefore dogs can become extensions of owners' selves. (Jyrinki, 2005)

and its problems, but also the benefits it has. Though it is not without limitations, as the speaker had prepared their speech to a target audience of bankers answering questions about the monetary policy.

Khan, in their research, *Leadership in the digital age* (2016), quotes Collin et al.; (2015, p. 29) "Digitalization of products and services is a fast-moving, global megatrend that is fundamentally changing existing value chains across industries and public sectors", and proceeds to explain further the research' findings. Through in-depth interviews, they were able to discover the causation between digitalisation and different forms of leadership. Khan's research is not without, as the other topic under the study, in addition to digitalisation, is leadership. Nevertheless, the paper provides the researcher with important information about the six characteristics of digitalisation and helps understand digitalisation and digital transformation through Khan's research.

The topic of digitalisation is difficult to research, as the term is interchangeably used with different descriptions of the word. Digitalisation as a term is often mistaken with digitisation; digitalisation meaning digital transformation and being connected to industry 4.0 and digitisation meaning transforming information into a digital form.

2.3.1 Digitalisation in the dog food industry

Research publications regarding evidence or development of digitalisation in the dog food and treats industry are under a rock. Existing literature relating to the subject consists of industry website articles, blogs and magazines – which can be either short of relevant information, cover too large of an area or be biased. Another limitation is yet again the lack of animal-specific information; all animals are bundled under the term "pet" including dogs, cats, horses, hamsters, etc.

A somewhat wide amount of information is available on pet feed manufacturers. According to Food Engineering Magazine (2020), manufacturers are nowadays fighting for the digital shelf² with brands, as they have managed to establish successful continuous relationships with subscription shoppers. Manufacturers are also able to react

² "The digital shelf is how and where a brand's products are displayed online." (ChannelSight, 2021)

to product trends before brands and through that they can improve their own businesses and develop them further from only production. Food Engineering Magazine is an online paper published monthly. The magazine focuses on the technological innovations concerning the industry and provides the reader with a wide array of information covering different industries. In an article concerning pet food e-commerce boom, the author provides an insightful analysis of ongoing trends and observations in the industry by an interview with PetShop.co.uk's³ cofounder. The article alone provides the researcher with an analysis of the current state of the dog food market, including insight on topics such as the importance of subscription customers, product and packaging improvements and the ever-growing importance of manufacturers. The author's credentials are validated through their past journalist work in the food packaging industry.

2.4 Co-creation of value

Most of value co-creation related publications have been made by Grönroos, Vargo & Lusch and Prahalad & Ramaswamy.

Value co-creation was built on Prahalad and Hamel's (1990) core competencies theory. "It begins by recognizing that the role of the consumer in the industrial system has changed from isolated to connected, from unaware to informed, from passive to active." (Prahalad et al., 2004: 4)

Prahalad and Ramaswamy's publication *Co-creating unique value with customers* (2004a) explains and demonstrates how companies can, and must, include the consumer to the process of value creation. In their publication, a "new frame of reference for value creation" is introduced along with explanations of importance of key aspects that must be considered when considering value co-creation. Prahalad and Ramaswamy introduce the DART model (2004a: 6); a tool for companies to help co-create value. The DART model and its building blocks are explained and demonstrated to help understand the idea of the model, with reminders for companies to embrace the new way to create

³ PetShop.co.uk is an online pet food and care store, founded in 2010. Along with home deliveries, they also provide "the first-ever subscription pet food service, Bottomless Bowl". (PetShop.co.uk, 2021)

value. Prahalad and Ramaswamy study co-creation further in *Co-creation experiences: The next practice in value creation* (2004b). In the paper, they explain the paradox of growth and value creation being the dominant themes for managers. Prahalad and Ramaswamy's publications are helpful for the researcher as they are the core publications for value co-creation. Although it is where value co-creation started, it comes with limitations as digitalisation has come a long way since the early 2000's, which means that updated versions of the idea should be utilised.

Research papers, such as *Co-creating service experience practices* (Cheung et al. 2015), focus their study on the aspect of value co-creation in services, which they test, analyse and apply to existing theories and models to be able to extend theory. A limitation within this study is the fact that it was done on elderly at a residential care, but it provides the researcher with a Co-created Service Experience (CSEP) framework and an explanation of the ways customers actively co-create service experiences. In Gong and Yi's article, *Customer value co-creation behavior: Scale development and validation* (2011), the researchers' investigation offers insight on development of value co-creation scale through four studies and conclude that: "Through qualitative and empirical research, this study has developed and validated the customer value co-creation behavior scale." (Gong and Yi 2011: 1283) In the article, the researchers provide two models of value co-creation and state that: "managers may use the scale for market segmentation and customer profiling to gain useful information for maximising customer value co-creation behavior." (Gong and Yi 2011: 1283) Their article offers a number of theoretical contributions and establishes value co-creation to be a multidimensional concept.

2.4.1 DART-model

The original DART framework included the following building blocks (Mazur and Zaborek 2014 p.108; Prahalad and Ramaswamy 2004a):

1. **Dialogue** represents interactivity between two equal problem solvers, eager to act and to learn.
2. **Access** implies facilitating co-creation by offering the right tools for communication between customers and suppliers; it also entails those marketing solutions that result in increased freedom of choice for customers.

3. **Risk assessment** is referring to the customers' right to be fully informed about the risks they face from accepting the value proposition.
4. **Transparency** represents resigning from information asymmetry between the customer and supplier and practicing the openness of information.

In *Validating DART Model* (Mazur and Zaborek 2014), the researchers study and highlight the flaws of Prahalad and Ramaswamy's DART model over a lengthy 4 staged process; specification of domain of the scale through Churchill's (1979) suggestion; an extensive literature review of previous studies and publications; examination and debate of findings; and interviews. The study was originally meant to quantitatively test the DART model as the majority of previous studies made have been qualitative, but as Mazur et al. proceeded with their literature review, they noticed conceptual overlap and therefore focused their study on testing and validating the DART model. Their findings conclude the DART model to be too simplistic and therefore not a good tool to be used as such. Findings from the study lead to more research about the topic. Agrifoglio et al. (2014) state, the DART model is struggling in this day and age, as the centrality of technology isn't highlighted in the model. In their study *Extending the DART model to social media*, Agrifoglio et al. (2014) raise criticism towards the outdatedness of the original model and suggest their own addition, to make it more applicable for companies using social media. Other conceptual models of value co-creation have been introduced by Grönroos (2009) and Yi et al. (2013) and despite the DART model being mainly used in qualitative empirical and conceptual studies, it is still the most prominent model discussed and used in past literature (Mazur and Zaborek 2015: 108) and therefore a relevant tool for companies to co-create value.

2.5 Limitations

The literature reviewed for this thesis possessed a multitude of limitations due to the research question. The number of published journals and studies is relatively small when taking into consideration the size of the dog food and treats industry. Limitations for studies of the dog food and treats industry include a very limited amount of free information, as most industry analysis are made by market research companies charging thousands of euros for them. And generally, the information pool for *dog* food and treats

industry is incredibly shallow, as most publications discuss either the *pet* food and treats industry or the *pet care* industry, entailing essentially everything concerning pets. The dog food and treats industry is rarely studied globally, which signifies the geographic areas of studies are usually focused on the largest markets. A limitation concerning pet humanisation publications is that its impact on any other topic than consumer behaviour is very restricted and therefore it gives a very one-sided picture of its impact. Value co-creation as a topic was mainly studied qualitatively and therefore it lacks a quantitative view. The DART model for value co-creation doesn't seem to have been used in the dog food business at least according to published papers or studies and it was condemned not to be a good tool to be used as such – however it is still widely used today.

On the following chapter the chosen research methodology is justified for this thesis. The chosen research approach is analysed by its strengths and weaknesses as well as the data collection methods.

2.6 Theory

After examining the relevant literature and the limitations it has regarding the research question, a better understanding of the issues has been collected. As the dog food industry is a tricky topic to study, the literature regarding it must be thoroughly read and cross-referenced with other publications. For instance, value co-creation in the dog food industry must be studied in such manner, that general studies of co-creation will be applied to what has been **learner** about the industry through published analysis and other findings. Pet humanisation as a topic is closely related to the dog food industry and therefore easy to apply to it, but to find the connection it has to value co-creation, must many kinds of journals and studies be analysed and applied to the specific area. Additionally, due to the confusion around terms 'digitisation', 'digitalisation' and 'digital transformation', this thesis will factor in that the terms are usually used interchangeably and will clarify the different meanings between the terms in order to elucidate how the terms should be used. Also, as discovered, the COVID-19 pandemic has had a huge impact on the dog food and treats industry, which can't be ignored. Therefore, as most information obtained about the industry will be pre-COVID-19, the pandemic's effect on the industry will be applied where deemed appropriate.

3 Research methodology

In this thesis the emphasis will be on research of secondary data of e.g., the dog food and treats industry statistics and the importance of value co-creation in the digital age. Publications such as veterinary journals, research papers, articles, case studies and books are utilised by the researcher to achieve a better understanding and to map out the connection between the digital transformation and value co-creation especially in the dog food and treats industry. The focus will be on finding out how value is co-created in the digital age. The gathered data will be analysed so that the following question can be answered; is value co-creation essential for (dog food and treats) companies to succeed in the digital age, and if so, how?

3.1 Research philosophy

“A well-thought-out and consistent set of assumptions will constitute a credible research philosophy, which will underpin your methodological choice, research strategy and data collection techniques and analysis procedures” (Saunders et al. 2019: 130)

On this thesis, the research philosophy applied is realism.

Realism has two sub-categories: direct realism and critical realism. They are not to be confused with one another as direct realism has more of an empirical approach and “Critical realism focuses on explaining what we see and experience in terms of the underlying structures of reality that shape the observable events.” (Saunders et al. 2019: 159) Critical realism is applied on this thesis.

Taking after said philosophy is justified considering the research question of this thesis. The dog food and treats industry consists of multiple environments to which digitalisation or digital transformation and value co-creation can be applied to.

3.2 Research approach and purpose

The research approaches applied to this thesis are contrasting: the deductive and inductive approach. (Saunders et al, 2019: 152) This is due to the fact that other topics related to this thesis are more accessible, such as digitalisation, and have more information available, whereas e.g., the dog food and treats industry requires an inductive research due to less amount of available information. Following the deductive approach, through a literature review the researcher can find relationships between the themes discussed in this thesis, such as digitalisation and value co-creation.

Deduction has five stages (Saunders et al. 2019: 153-154), which the researcher will follow to reach a conclusion. Inductive approach usually works on qualitative data (Saunders et al. 2019: 155) and in this thesis it will be applied on information found about the dog food and treats industry.

Due to deduction's purpose being explaining causal relationships between different variables, in this thesis relationships can be seen between digitalisation and value co-creation. The researcher had no difficulties being objective towards the topic, as the literature review consisted mostly of information found through various search engines.

The research purpose of this study is to explore value co-creation's essentiality especially in the dog food and treats industry. When conducting a literature review of related topics, the researcher did not find any similar studies of said topics. In addition to the main purpose, the researcher aims to find connections between digitalisation and the dog food and treats industry, as well as how value co-creation is utilised efficiently.

3.3 Research strategy

For pragmatic reasons, the research strategy chosen for this thesis is secondary data analysis. Due to limitations such as time, feasibility and a non-existent research budget, the chosen research strategy was the best choice.

According to Kothari (2004), the type of research conducted on this thesis is Library Research, as the methods of research include analysis of historical records and documents.

3.4 Data collection and analysis

As all the data collected for the purpose of this thesis is solemnly secondary, was literary review crucial to carry out properly and thoroughly. Kothari (2004) suggests that before using secondary data, the researcher must see if it possesses the following characteristics: reliability, suitability and adequacy. The researcher tested the reliability of sources by recognising the author, the sources they used, if there were any biases as well as where it was published and when. The suitability was considered at every source and the publications not suitable for this thesis were discarded. As well as the suitability, a source's adequacy was appraised via examining the accuracy of data presented in a source. Secondary data is collected from sources such as company reports, public speeches and interviews, journal articles, public databases and reports, books and public surveys (O'Gorman and Macintosh 2015: 77).

Because the data gathered for this thesis will all be secondary, must the advantages and disadvantages both be taken into consideration. According to Vartanian (2011: 13-16), the disadvantages of secondary data include: a previous study having broader conceptualisations than needed, the demographic surveyed doesn't match the researcher's needs, the available data is not as accurate as one would like, and published studies and research papers might expire upon new discoveries etc. The advantages of the usage of secondary data include its low cost and rapidity, as well as the sample size being larger when comparing to primary data. It allows the researcher to cover a wider geographical area and because the data will be presumably gathered over a long period of time, it offers a longer reference period.

4 Results and analysis

4.1 Digital transformation

“Digital transformation is a technology-driven continuous change process of companies and our entire society” (Duarte and Ebert 2018: 16)

Digital transformation is a phenomenon that has been actively happening for decades. According to Auriga (2016), the computerisation of processes started approximately 30 years ago, and it has come a long way since then; as company websites started to act as a channel of communication, the technologies quickly expanded even further. Companies started assigning teams specifically for digital development, and the digital processes shifted towards supporting customer interactions.

Digital transformation’s significance should not be underestimated, as digital technologies transform industries in completely new ways. (Auriga, 2016) According to BusinessTechWeekly (2021), digital transformation and technology can help compensate the gap between SMEs and big corporations, due to SMEs gaining more efficiency, accuracy, more productive workforce and reduced costs through digital transformation.

Through digital transformation, companies will have the opportunity to reform customers’ experience with them by finding solutions to create a holistic experience between web, mobile and offline. (Auriga, 2016)

4.1.1 Digitisation vs Digitalisation vs Digital transformation

There is confusion around the terms digitisation, digitalisation and digital transformation and they are often used interchangeably. (BusinessTechWeekly 2021) The words possess similarities, but overall, the meanings are different (see Figure 1: page 16); at the very core of digital transformation is digitisation, which posits the initial change from analogue to digital - it is a required steppingstone to reach digital transformation. After digitisation, the information can be digitalised and therefore be used to improve processes, which improves efficiency and reduces costs. Digital transformation follows

digitalisation, as it is just business transformation enabled by digitalisation. (ARC Advisory Group 2020)

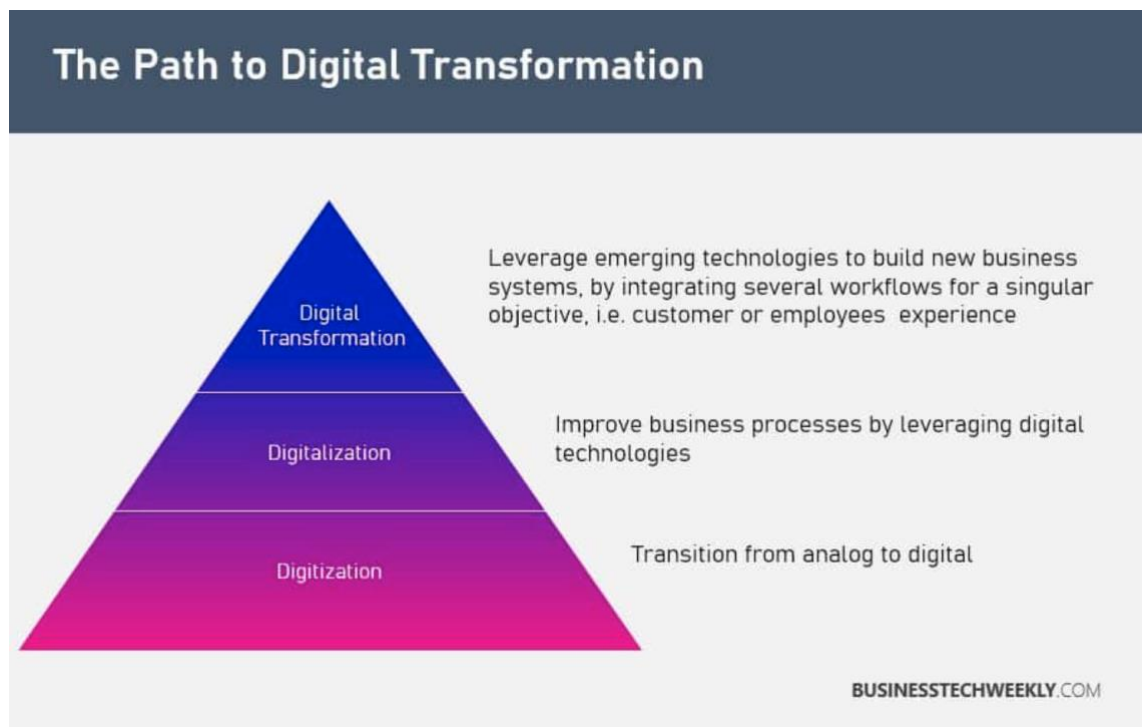


Figure 1. The Path to Digital Transformation (BusinessTechWeekly, 2020)

4.1.2 Digitalisation and digital transformation in dog food business

As digital transformation has affected companies and the whole society (Duarte and Ebert 2018), the dog food and treats industry have gone through digital transformation as well. Many aspects of dog food production and business models have shifted towards more digital environments, where the production is more automatized; premiumisation and personalisation can be done on a completely new level, and where 'direct-to-dog'⁴ business models are reaching for their shares of the market.

A very clear sign of digitalisation is e-commerce. E-commerce has contributed to the rapid growth of the dog food and treats industry, as it has made more options available

⁴ 'direct-to-dog' is a term used in dog food business to describe D2C, direct-to-consumer, model.

for consumers. It allows consumers to be more informed about brands and their products, making different dog food easier to acquire and gives consumers more choices.

Digitalisation of dog food and treats business is happening at a pace more rapid than usual, and the manufacturers are at the front line having more power over the market than the businesses. (Food Engineering Magazine 2020) As sustainability keeps trending, companies continuously need to come up with new solutions to keep their edge. The manufacturers on the front line could develop into their own dog food companies, cutting off all middlemen and putting their full focus on the D2C business, therefore shortening their supply chains and cutting costs. This is only applicable for e-commerce and would not affect brick-and-mortar as much, because setting up a physical store would require manufacturers a larger investment, whereas e-commerce would require less.

According to Pet Food Industry (2019), omnichanneling⁵ is popular among pet owners, even though e-commerce has increased in the past years. The companies face a challenge, as study shows consumers buying pet food like to do so through omnichannel, they need to find the balance between e-commerce and brick-and-mortar to achieve the best results. Either e-commerce companies need to find a golden path or let retailers have a part of their possible revenue.

Premiumisation has been a rising trend (see Figure 5: page 23) that has been boosted by digitalisation. New technologies support for example personalisation of dog food, which belongs in the premium-category. Premiumisation is not only affected by digitalisation, but is also closely tied to pet humanisation, as dog owners want their 'beloved family members' to have what they perceive to be the best, and it also brings the consumers joy as they have a feeling of being a good 'pet parent' as they provide their dogs with something of 'high quality'.

⁵ "Omnichannel - is a multichannel approach to sales that seeks to provide customers with a seamless shopping experience, whether they're shopping online from a desktop or mobile device, by telephone, or in a brick-and-mortar store." (TechTarget, 2020)

Due to digitalisation, when large companies gain more market share, the market entry becomes more difficult to smaller companies (Skingsley 2019: 6), which can lead to larger companies acquiring small businesses and creating mega corporations. Digital transformation has driven the already dominant dog food corporations to gain even more market share. Smaller, up and coming brands are being bought out by the corporate giants, who are impossible to compete with.

Value co-creation is an important tool for companies to achieve successful digital transformation. As Xiaohan (2020) notes, "Value co-creation (economic, innovation, and relationship value) has a significantly positive impact on firm performance" and should therefore be utilized to its utmost potential. "From 2000 to 2015, the rise of smart devices and social media platforms led to a drastic sea change in the methods customers used to communicate with businesses, and also the expectations customers had with regards to response times and multi-channel availability" (Boardman et al., 2019: 2) This suggests value co-creation being closely tied to digitalisation and enforcing it.

4.2 Current climate of dog food and treats industry globally

The dog food and treats industry has been growing steadily over the past years and is worth over USD 55.5 billion dollars. It is expected to grow to USD 75 billion by 2025 (Global Market Insights, 2019). In Europe alone, there are over 87 million pet dogs, and the estimated percentage of households owning at least one dog is 24 %. (FEDIAF, 2019)

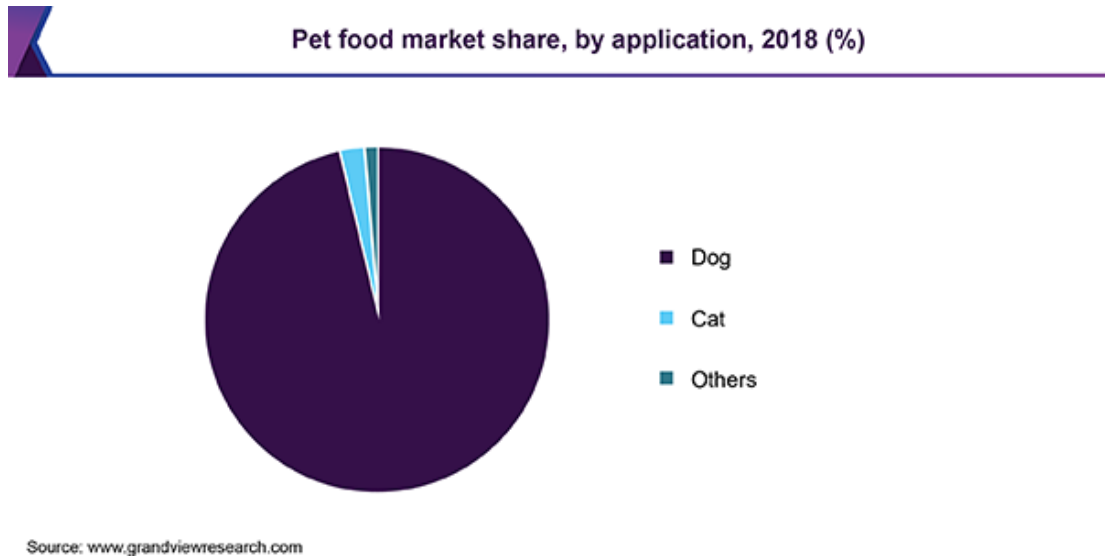


Figure 2. Pet food market share, by application (Grand View Research, 2019)

As pet food market is seen as a one large category, it consists of smaller segments which are divided by species. Dog food has the largest market share compared to the other segments. (see Figure 2) It is therefore the most prosperous segment with tremendous growth opportunities, especially when taking into consideration industry digitalisation.

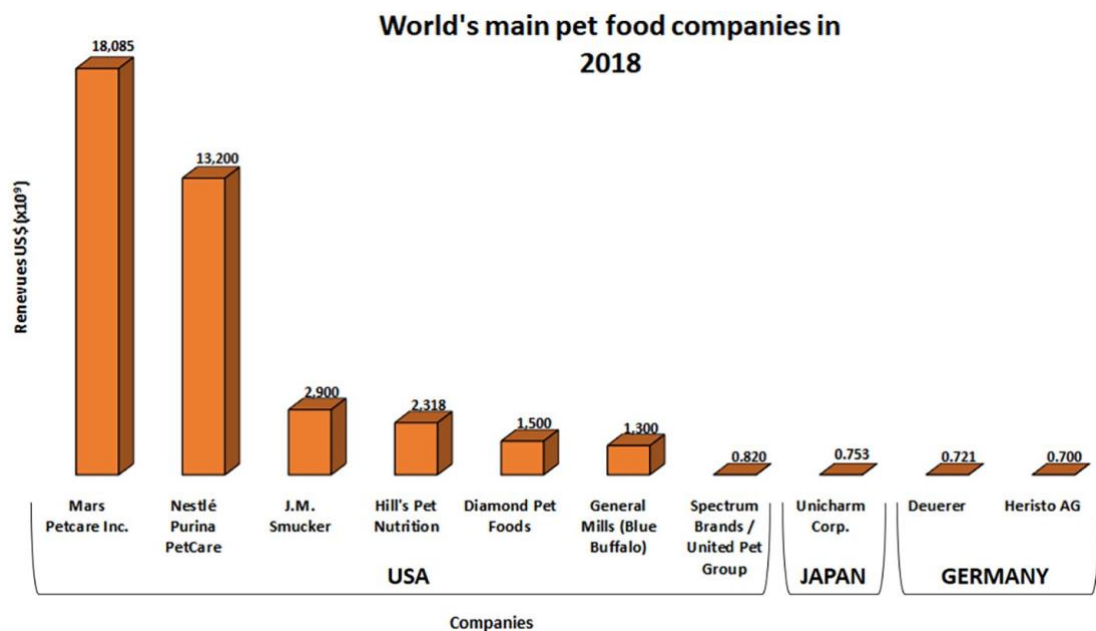


Figure 3. World's main pet food companies in 2018 (Viana et al., 2018)

The dog food market is dominated by a few large players, Mars Petcare Inc. having the largest market share with their two most popular dog food brands, Pedigree and Royal Canin. As noted by Fuchs and Oberhuber (2011: 948), the intense price and quality competition between these companies (see figure 5: page 23) has been going on since the late 1970's. The main expansion strategy in the industry included the acquisition of smaller pet food companies, which helped the large corporations to grow even larger. The rivalry has evolved to hypercompetition in the industry, which is putting pressure on corporations as the quality standards are rising, but the prices keep descending, thus having the leading pet food companies use up to 30 % of their annual revenues on advertising efforts (Fuchs and Oberhuber, 2011: 948).

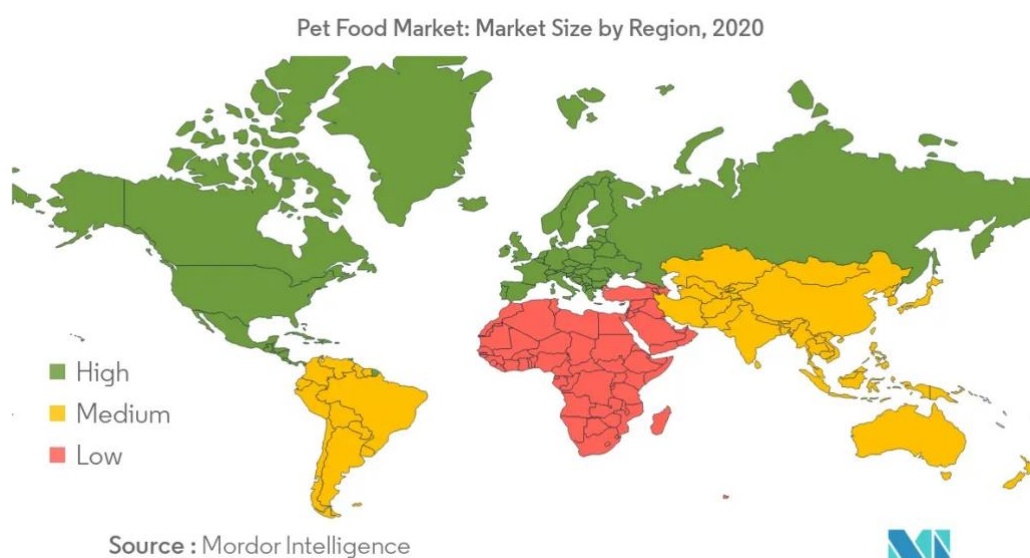


Figure 4. Pet Food Market: Market Size by Region (Mordor Intelligence, 2020)

The main markets for dog food and treats are western countries. The highest demand for pet food is in North America and Europe. The lowest demand is in Middle East and Africa and in between there are the Asia Pacific and Latin American markets (see figure 6: page 23). According to Statista (2021), pet food production was concentrated to North America and Europe, together taking up over 60 % of the global pet food production.

Distribution channels for dog food include supermarkets, independent pet stores, veterinarians, subscriptions and e-commerce. In 2010, only 6.3 % of pet owning households purchased pet products online, but by 2018 that number had increased to 20.4%. (Pet Food Industry 2019) Online shopping has generally increased and "40 % of

pet owners are opting to buy pet products online” (Chain Store Age 2017). As ecommerce is gaining more popularity, due to digitalisation and the impact of COVID-19 (UNCTAD 2021), it is still unlikely to take retailers’ place as the main channel. However, “Pet food e-commerce is expected to continue growing as consumers can purchase the same specialty brands with the added convenience of home delivery and recurring order programs.” (Hobbs and Shanoyan 2018: 5)

4.3 Co-creation of value in dog food business

Value co-creation in the dog food business is closely tied to pet humanisation in the sense where pets are considered as beloved family members. (see Figure 7: page 28)

At the Petfood Forum 2016, Evelia Davis, vice president of dog and cat consumables for PetSmart⁶, discussed the importance of co-creating value in the pet food business. She argued the main group of consumers in the segment, millennials, not to be brand loyal and therefore in need of convincing of a brand’s value. According to Davis, it can be done by creating “... new, innovative products that address unmet needs and create new habits for pet parents. Pet food companies need to become ‘solution providers’, -- not just sellers of dog and cat food and treats.” Davis argues, that to retain customers, the pet food companies need to establish credibility and trust with pet parents, including transparency of manufacturing, sourcing of ingredients and the way a brand promotes their product or services. “Additionally, co-creating value will help pet owners to engage and connect with the products, brands and retailers.”

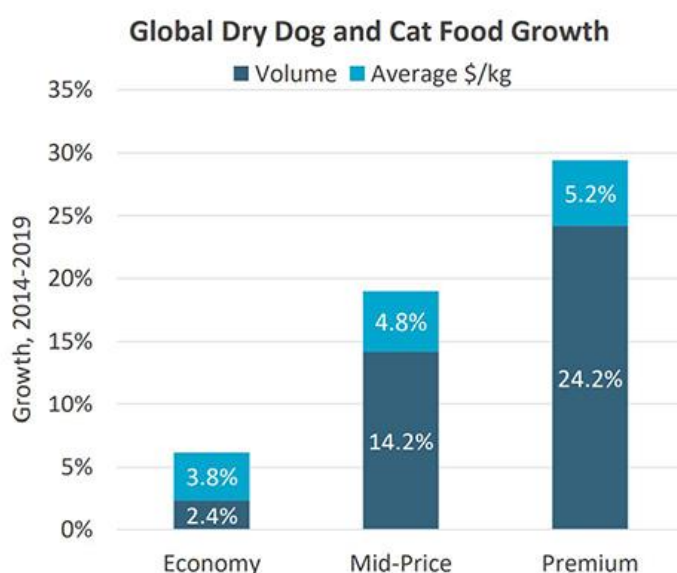
“ Customers search for opportunities to co-create value that will help them to attain their life goals, make sense of their lives, and/or learn something new.” (Cheung et al., 2015: 21) This is also visible in the dog food business; as many pet owners, millennials in particular, have a presence on social media, where their dogs are usually often present. Through dialogue and interaction with, for instance, a pet food brand on social media, the customer can learn something new, while attaining their life goal, if it is to e.g., be more sustainable while being a customer to a sustainable dog food brand. Steps of the

⁶ “ PetSmart LLC is the largest specialty pet retailer of services and solutions for the lifetime needs of pets.” (PetSmart corporate, 2021)

DARTT (see Figure 6: page 26) value co-creation model can be applied here in order to gain value for the company as well as the customer.

Xiaohan (2020: 213) in their research states, that when effort is put into good quality communication by the company, long-lasting and more intense relationships can be exerted between the company and the consumer. This implies that the importance of value co-creation can result in a long-lasting relationship between the company and the consumer, supporting the previous claim by Davis (2016) and verifies the hypothesis of co-creation being a valuable asset in 'dog parent' relationships.

The DART model is still the most prominently used theory for firms to co-create value for them and the consumers, however, "Typical phenomena of social media ... show that co-creation is more problematic in digital environments than in physical environments." (Agrifoglio et al. 2014: 272) This suggests that improvements for the DART model need to be done in order for it to be able to keep its edge as the most commonly used model of co-creation. Agrifoglio et al. (2014) introduced an improved version of the DART model, which can be applied to companies nowadays, as digitalisation has improved companies' ways of communicating with e.g., social media. The DARTT model has not been applied on the dog food industry on any publications, and its relevance will be assessed on the next chapter.



Source: Euromonitor International

Figure 5. Global dry dog and cat food growth. (Euromonitor, 2020)

4.3.1 DARTT model – case Company

Figure 1 A DARTT model for co-creation by social media, (a) the original model (Prahalad and Ramaswamy, 2004b) (b) the revised model (see online version for colours)

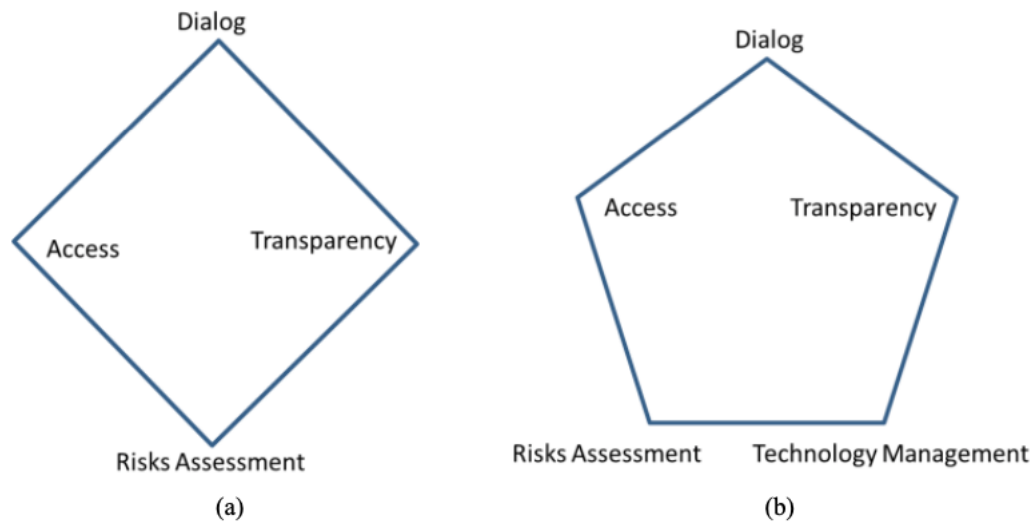


Figure 6. A DARTT model of co-creation for social media. (Agrifoglio et al. 2014)

In their study, Agrifoglio et al. argue that the addition of Technology Management to the original DART model is important in order to effectively exploit social media to co-create value, instead of solemnly using it for communication with (and between) customers – as the traditional DART model assumes. (2014: 272) To assess the validity of the DARTT model by Agrifoglio (2014) (see Figure 6: page 23), the researcher has chosen to do so by applying it to the company that inspired them to research the topic of this thesis. The company in question is a dog food and treats company operating in Europe, offering a subscription service for dog food and treats, while trying to minimise the carbon footprint of dogs. The company aims for transparency and they have a strong presence on social media as well as great technology management, which makes the company a good example to examine the essentiality of the DARTT model on.

1. Dialogue

According to Prahalad and Ramaswamy (2004a), dialogue means interactivity, deep engagement and the ability and willingness to act on both sides. Apropos to the company, interactivity is closely tied to the consumption of dog food; the company being a sustainable choice, the criticism from customers creates more value for the company

and simultaneously to the customer, who has chosen to support a company that is creating value for them as well in the form of a healthy dog and the feeling of having done something good for the environment. The company has a presence in social media; Instagram, Facebook, LinkedIn, YouTube and Twitter, where interactions between the customers and the company happen, as well as through emails in regards of customer service. These channels contribute highly to the dialogue between the company and the customer, especially when the content is made in such way that it encourages dialogue. Previously, the company has paired dialogue with access. When the company first launched, they had a pilot group of product and service testers, who then gave valuable criticism before launching their website. Afterwards, access and dialogue are still combined when considering new products or existing product development.

2. Access

Access means the availability of information companies provide, and the experiences to be created with it. As digitalisation has spread, consumers can more easily access an extraordinary amount of information about prices, firms, technologies and products. (Prahalad and Ramaswamy 2004a: 4) The company provides all interested individuals with blog posts and references on their website, and information in the form of videos on their YouTube channel. They provide access to various types of information, such as where their ingredients come from, and how and why new ingredients are sourced. With all the available information, customers can make educated decisions and discuss the findings with others, or the company. However, as for instance, their dry dog food production is outsourced, they cannot provide access to production details on behalf of their producer, which decreases the level of accessibility.

3. Risk assessment

As consumers have become more demanding towards firms and making more conscious purchases, the need for being fully educated concerning the risks involved has increased. (Prahalad and Ramaswamy, 2004a) Generally, consumers don't seem to have concerns regarding purchasing from the company nor for being involved with the company. They're considered an ethical and ecological choice, which is considered valuable by most consumers. However, the relationship with the brand is multidimensional. As the consumer is not the end user of the product, the risk has to be assessed on behalf of

the dog. Here the consumer will have to make an educated choice in order to ensure their beloved family member's health. Possible risks include complications originating from unfitting food or an allergic reaction, which have to be taken into consideration by the consumer before the purchasing decision.

4. Transparency

Transparency allows the company to provide information about their practices, services and products, therefore making themselves more desirable in the eyes of a consumer. (Pralhad and Hamel 2004a) The company is aiming to be as transparent as they possibly can, by sharing information about the sourcing of their ingredients, company carbon emissions and by admitting their flaws. Their transparency is closely tied to section 2, access, as all the information is available on their website. In the case of the company, transparency is something that is closely tied to the company's values, which can even by itself be useful for value co-creation, as it can encourage meaningful dialogue.

5. Technology management

"Technology management plays an important role within an organisation because it allows the understanding of the value of certain technology to create competitive advantage." (Agrifoglio et al. 2014: 282) The company is dedicated to having a strong online presence on social media, which is fortified by content planning and scheduling. Good, engaging content increases the chances and opportunities of co-creation of value for the company as well as for the ones who engage. The company also has specialised personnel in charge of marketing, who can spot consumer behaviour trends connected to their brand. These two factors are signs of good technology management, in which they are recognised and utilised to their utmost potential in order to be able to co-create more value to both, the company and the consumer. In addition to the previous, the company also encourages consumers to be a part of a group through e.g., using a specific hashtag. Using the tag on social media allows participants to socialise as well as create and maintain relationships with each other through the company, which creates value to the customers and therefore to the company as well.

As predicted, the DARTT model provides a better understanding of a company's efforts to co-create value. All five steps of the improved model are important dimensions every company should take into consideration when choosing to invest in value co-creation. As Prahalad and Ramaswamy state: "Both access and transparency are critical to [be able to] have a meaningful dialogue." (2004b: 9) which can be seen in the case company; as declared in their values, transparency is important along access, to which it is closely tied to, for the consumers to be as informed as possible to make decisions and engage in dialogue with the company and other consumers. Customer engagement is effectively supported at the company not only through social media, but with a referral program as well. This brief examination of the company, according to the DARTT model, implies that the company has successfully applied all building blocks to their business model. However, the building blocks of the DARTT model don't include any officially essential steps a company should take in order to be successful, therefore overruling the initial belief of it being essential. Yet, the researcher presumes the DARTT model to be an important and useful guideline for companies operating in the digital age. Understanding the importance of transparency and dialogue between a company and its customers can give them competitive advantage compared to other companies who have not yet assimilated the concept.

4.4 Pet humanisation and its effect on dog food business

The dog food and treats business differs from other businesses, as the end user is not the one who the products and services are marketed to. It is obvious that the marketing efforts shouldn't be directed towards the dogs, but what makes pet owners so passionate about their pets' nutrition?

"To a certain extent ... dog owners humanize their pets and treat them as part of themselves." (Cheong and Yi 2014: 26) This can explain the enthusiasm some dog owners have when it comes to feeding their pets. Jyrinki and Leipämaa-Leskinen note, that consumers are emotionally attached to their possessions, pets in particular, and the sense of control of those possessions is important, when perceiving pets as extended self. (2005: 543) The risen demand for premium dog food (see Figure 5: page 23) has been a direct impact of pet humanisation – the health and self-care boom among humans

is reflected to their pets, as pets are treated as part of the owners' selves to some degree.

Boya et al. conclude dog owners to be an untraditional bunch - they don't fit the traditional demographic segmentation. (2012: 141) Previous studies have found that pet owners, and especially people who own dogs, need to be categorised differently from other consumers by marketing strategists and service providers. (Boya et al. 2012; Chen et al. 2012) This means that dog food and treats businesses need to take into consideration the uniqueness of their target group in marketing, but also when designing their business model. Another thing that needs to be considered by marketers, for instance, is that generational differences apply in the dog food business as well. As Dotson and Hyatt suggest,

Younger people, overall, experience more strongly the dimensions of dog companionship, possibly due to a generational effect or perhaps due to more openness to the interspecies connection and a greater flexibility in their lifestyles. ... This suggests that marketers should reformulate the life-cycle conceptualization to include dogs (and other pets) in the definition of family (2008: 465).

A great majority of pet owners in every age group agree that their pets are in fact beloved family members (see figure 7: page 28). Autio et al. note in their study (2014: 103) pets to have three different active roles: pet as a value creator, pet as a mediator of value and pet as an experiencer of value. Pet humanisation is extended as far as to e.g., specific dog breed groups on, in which pets are discussed of and even 'talk' themselves. Some dog owners on social media make status updates as their dogs, talking about what they [the dog] did that day or what they thought about, for instance, taking a bath. This suggests in general dogs to be beloved family members (see figure 7) and having an active role in their owners' lives at least as value creators and experiencers of value.

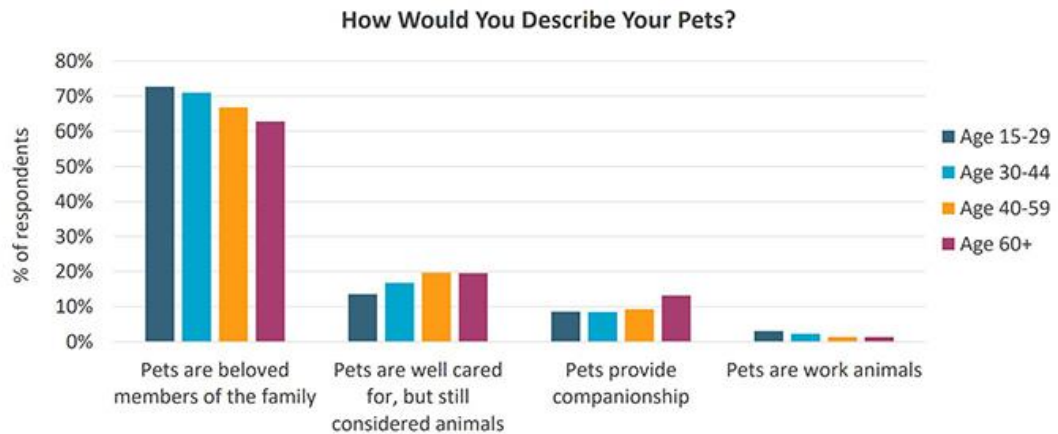


Figure 7. How Would You Describe Your Pets? (Euromonitor International, 2020)

As dog owners want their beloved family members to only have the best, it has directly impacted the industry. When pets are humanised, human trends are reflected to pet food – premiumisation through 'natural' and 'healthy' ingredients in dog food is a straight influence on the industry. (see Figure 5: page 23) In addition, the pandemic situation caused by COVID-19 benefited the development of pet food business, as more pets were added to families to keep company, and 42 % of US dog owners said to be watching their pet's health more closely because of the pandemic (Pet Food Industry 2021a, 2021b) thus choosing food for their dogs that they perceive to be healthier.

Pet humanisation has led to some owners experiencing their dogs to be extensions of themselves, therefore reflecting their own values to their dogs. This can be seen through the rise of premium grade dog food (see Figure 5: page 23) and the suggestions made by researchers in previous studies about segmenting the dog food consumers differently from other businesses. However, pet humanisation, as important of a phenomenon as it is, is not seen as the driving force for growth in the dog food and treats business.

5 Conclusion and recommendations

This topic was chosen by the researcher due to their recent interest in the topic after completing an internship in a company operating in the dog food and treats industry. The positive impact of the pandemic situation of COVID-19 on dog food and treats sales was surprising and the factors behind it became increasingly intriguing. Along with the industry, the researcher chose to peruse topics closely related to that phenomenon: digitalisation, pet humanisation and value co-creation. The reason for the variety of the topics was that such keywords did not bring up any studies regarding the dog food and treats business, thus the researcher wanting to connect the dots between the topics in this thesis.

The research shows, as presumed, digitalisation, value co-creation and pet humanisation to be closely related. Pet humanisation appeared to be an important aspect of value co-creation, especially in the dog food and treats industry, where premiumisation has taken the leading role (see Figure 5: page 23). However, the presumption made at the start of the research process was proven wrong – in the process of literature review, the insignificance and outdatedness of the DART model surprised the researcher and forced to slightly adjust the direction of the research to a newer, improved version of the model which can be applied to social media as well as the new business models of digitalised companies and organisations.

Findings suggest that even though digitalisation of companies is evident, and e-commerce is constantly gaining popularity, it is unlikely for them to take over the market from retailers. The dog food and treats industry has been experiencing steady growth over the years, even through COVID-19, which supported and stimulated the industry digitalisation. The industry has been drifting towards the direction of e-commerce, but as pet owners prefer omnichannel shopping, retailers will still hold their share of the market. Value co-creation is debated to be essential for today's companies to thrive, but many companies do it without even realising. In the dog food industry, value co-creation can be challenging, as the multidimensional relationship between a dog and their owner has to be taken into consideration. When applying the DARTT model to a company, especially from the dog food industry, it should be done carefully; there is a risk of providing a superficial picture of the company's efforts. Examination of the DARTT model suggests value co-creation not to be essential, but to be an asset that can give the

company competitive advantage – and therefore using it is highly recommended. Value co-creation entails the company to know their target audience, which in the case of dog food and treats industry is unusual, as the normal geographic segmentation does not apply to dog owners. This is due to pet humanisation, for instance, which has led to the phenomenon of seeing pets as extended self, therefore reflecting their own personal values to their dogs.

The research was not carried out without facing challenges, like previously mentioned. The literature review showed the researcher that the DART model of value co-creation by Prahalad and Ramaswamy was outdated and couldn't be applied to today's digitalised companies sufficiently. It resulted in further research about the model, and the updated DARTT model by Agrifoglio (2014), which takes into consideration social media and new business models of digitalised companies. A decision was then made by the researcher to use the improved DARTT model in order to see the essentiality of the value co-creation model through a dog food and treats company that inspired the researcher to study the topic of the thesis.

The reliability of secondary sources was consistent to the researcher's best knowledge. There is always a possibility for error, but to the researcher's best ability, all sources were validated and proven to be reliable at the time of research process. However, there are possibilities of generalisation of research results and a need for deeper studies to determine the connections between the topics discussed in this thesis. A strict time frame also limited the quality of the research process, as the chosen publications could perhaps not be as high in quality, as presumed. The best practice to conduct this thesis could have been a more extensive literature review, along with a survey or interviews with companies in the dog food and treats industry, concerning the topics in this thesis. Doing so would have helped the researcher to expand on some parts of the thesis, and overall, in providing a more in-depth analysis of the topics studied.

After researching the dog food and treats industry, it quickly became evident that the quantity and quality of studies and research made of it was not nearly as high as an over 72 billion EUR industry should. Also, pet humanisation's impact on purchasing behaviour has been studied plentiful and the psychology behind is as well interesting as it is useful, however, its direct impact to the dog food and treats business is lacking statistics. In the light of these findings, further research regarding the dog food and treats industry should

be more widely available for all. In addition, further studies to develop the DART model or to develop a completely new co-creation model where both, the company and the consumer, benefit just as much, is suggested. Additional studies of the COVID-19 pandemic's effect on industries' digitalisation should be conducted, as well as extensive studies of its impact on all aspects of the dog food and treats industry.

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