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Opening the barn doors:

Effects of Farm Animal Welfare Disclosure

on Perceived Transparency

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List of Abbreviations

ANOVA	Analysis of Variance
BBFAW	Business Benchmark on Farm Animal Welfare
CSR	Corporate Social Responsibility
DV	Dependent Variable
FAW	Farm Animal Welfare
GDPR	General Data Protection Regulation
GMO	Genetically Modified Organisms
IV	Independent Variable
NGO	Non-Governmental Organization
SoMe	Social Media

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Abstract

One of the most topical issues of agriculture today is farm animal welfare (FAW). Agricultural corporations struggle to get through the minefield of transparent corporate communication and are regularly subjected to public criticism whenever transparency is less than what consumers expect. This quantitative study addresses the lack of experimental research on transparent corporate communication in the meat industry, aiming to understand how farmer- and non-farmer consumers perceive corporate transparency effort depending on the degree of FAW disclosure. We hypothesize high FAW disclosure delivers more positive perceptions of the corporation's transparency effort. We further argue that high FAW disclosure will deliver more similar perceptions between two consumer groups in this study, namely farmers and non-farmers, in turn minimizing the information asymmetry previous literature has found to exist between such groups. Industry knowledge is also hypothesized to act as a moderator between the relationship of IV and DV. An online experiment was conducted in Qualtrics, collecting 318 responses, where 306 of them were valid. The data was then analyzed in SPSS 28 through a variety of t-tests, ANOVA and regression models. The results find a strong relationship between the degree of FAW disclosure and perceived transparency effort, where high disclosure seems to deliver significantly more positive and similar perceptions of the corporation's transparency effort compared to low FAW disclosure. Interestingly, industry knowledge did not have a moderator effect, but still significantly influences perceived transparency effort directly. However, effects of greenwashing and open washing might occur if too much information is disclosed. Therefore, depending on the level of industry knowledge needed to decode disclosed information, corporations should vary between a sweet spot of medium and high FAW disclosure.

1.0 Introduction

The welfare of farm animals (which includes cattle, pigs, sheep, goats, and poultry) has developed into a prominent public issue in western societies throughout the last decades. Awareness of global health risks and ethical issues stemming from food production and consumption has risen due to food crises such as mad cow disease (BSE) in the early 1990s, bird flu A(H7N9) in the 2000s, the 2013 horsemeat scandal, and more recently the 2019 E.coli (O103) outbreak from ground beef in several U.S. states (CDC, 2022; Jaskari et al. 2015). Its impact on public perception of food corporations is becoming evident as consumers' interest in food production, food processing, farm animal welfare (FAW), and sustainability has increased (Wognum et al., 2011). Simultaneously, media coverage of farm animal living conditions and slaughter practices has elevated the debate on animal welfare (Evans & Miele, 2012; Jokinen et al., 2012). Along with growing accessibility to information through the internet and social media, it seems as though being transparent is becoming a necessary part of operating a corporation (Kavakli, 2021).

Within the Norwegian meat industry, many consumers have shown concern for livestock welfare and how animals are being treated in production processes. As many as 49% of Norwegians state that they always, often, or usually feel concerned for the welfare of meat-producing animals, with a third of Norwegians going as far as to restrain from purchasing meat because of FAW concerns (Kulø, 2021). In order to maintain, or even retain, consumer trust, Norwegian agricultural corporations have started to ask themselves how and to what degree they can transparently communicate to maintain positive perceptions with external stakeholders.

Transparent communication in the meat industry could admittedly go in any direction. Possible scenarios include, but are not limited to, affecting consumers' decision-making process, changed attitudes towards the meat industry, altered perception of product attributes, diluted brand reputation, or increased trustworthiness (Kang & Hustvedt, 2014; Rumble & Irani, 2016; Van Dijk et al., 2008). Therefore, a well-established communication must be constructed for an agricultural corporation to achieve the desired outcome of its transparency efforts. However, consumers often process and interpret transparent communication differently compared to more industry-involved stakeholders (e.g. farmers and processors) as they are less involved in food production and hence probably less

knowledgeable of industry practices. This might allow for informational disparities of FAW between two stakeholders like farmer and non-farmer consumers.

However, research in understanding asymmetrical expectations of transparent corporate communication, specifically FAW disclosure, is scarce. Hence, this study intends to investigate how varying degrees of FAW disclosure from an agricultural corporation is perceived by two different consumer stakeholders, farmers and non-farmers. Results could help minimize risk of corporate communication causing media backlash and also reduce the gap of information asymmetry.

2.0 Literature Review

There are two relevant domains of literature in this study. Firstly, we review corporate communication as an overarching structure to comprehend a corporation's role in shaping consumer relationships, perception, expectations, and knowledge of FAW. Next, we look into the complexities of transparency, why transparency is crucial in today's corporate context, and how consumer expectations of FAW disclosure prompts informational disparities.

2.1 Corporate Communication of Farm Animal Welfare

Unlike marketing communication and organizational communication, traditionally concerned with consumer reach and employee satisfaction respectively, corporate communication aims to merge all communication efforts within corporate organizations (Harrison, 1995). Therefore, corporate communication aims to grasp itself on a more expansive selection of communication activities than its counterparts, thus addressing a larger audience. However, the core aim of corporate communication is to unify an organization's communication efforts as orderly and comprehensible as collectively possible (Jackson, 1987; van Riel, 1995). By managing corporate communication as one common and explicit image, instead of addressing various identities across multiple audiences or letting corporate departments administer communication individually, it makes the organization's identity and purpose clear (Christensen, 2002). What defines the "corporateness" of such a communicational structure is that all elements within communication are incorporated, formulated, and unified as a single organizational essence and in line with the corporation's purpose and vision (Yeshin, 1998; Goodman, 2000).

Corporate communicators can choose to activate many options when it comes to alleviating FAW concerns. Information can be shared through reports, farm visits, highlighting their thoughts on the gap between corporate goals and achievements on social media, or even increasing animal-friendly reputation by involving farmers in authentic stories (Janssens & van Wesel, 2019). The absolute minimum a corporation can do is to communicate its FAW responsibility on their website (Janssens & Kaptein, 2016). Managers tasked with responsibility affairs can do a lot to strengthen the corporate stance through something as simple as communication. Nevertheless, few agricultural corporations use sustainability, particularly FAW, strategically. Although communication of FAW is acknowledged as a source of competitive advantage for corporations in the food industry (Miele & Lever, 2014; Ransom, 2007), many still take a defensive and reactive approach when communicating CSR rather than using it strategically and proactively to build a reputation as a CSR advocate. By doing so, these corporations forgo the competitive advantage CSR presents (Ross et al., 2015).

Agricultural corporations have frequently pointed fingers at media agencies for miscommunication of significant FAW facts. However, it is also up to the individual agricultural corporation to provide a channel of their own (i.e., a website) where consumers can access accurate and transparent FAW facts (Croney et al., 2012). Nonetheless, it has been found that FAW continues to be a systemic risk that is not sufficiently managed or reported on compared with the more established sustainability issues like climate change and food sustainability (Amos & Sullivan, 2015). For the most part, FAW is presented as part of a wide array of CSR issues and is often overseen by senior management (Sullivan et al., 2017).

Previous research from Rim et al. (2019) investigated what would happen to corporate reputation when agricultural brands tell the truth. They found that proactive communication improves consumer perception. However, some of the most common proactive methods corporations tend to use in the food industry are CSR reports, which in relation to FAW, are perceived as reactive, unfocused, and dislodged from the core corporate agenda (Elder & Dauvergne, 2017; Porter & Kramer, 2006). When looking at previous research, it is evident that a corporation's accountable behavior and conduct can potentially affect consumer outcomes such as loyalty, product consideration, corporate and product evaluation, purchase intention, and willingness to pay (Hartmann, 2011, p. 302). Unfortunately, many

corporations only disclose FAW information to increase brand awareness through value-added messaging on animal-based products (Miele & Lever, 2014).

The Business Benchmark on Farm Animal Welfare (BBFAW) report from 2015 highlighted that corporations randomly disclose information about FAW performance (Amos & Sullivan, 2015). According to the most recent BBFAW report, most continue to do so today as well (Amos et al., 2021). Many are struggling to grasp why they are entertaining FAW as a CSR issue in the first place. The shortcoming of attention given to FAW is magnified as corporations fail to acknowledge and honor awards won from third-party organizations in CSR reports (Amos & Sullivan, 2015). In the end, it might be added reactively, a misstep adding to Porter and Kramer's (2006) argument that corporate CSR is reactive, unfocussed, and separated from core business agendas. When examining the most recent BBFAW report from 2021 (Amos et al., 2021), it tackles some significant issues corporations have concerning FAW as well as more general sustainability issues. In its tenth publication, the report found a significant improvement in corporations implementing FAW into their management and disclosure policies. 89% of the corporations in the benchmark now acknowledge FAW as a corporate issue, compared to 71% in 2012. In addition, 81% of corporations now have formal policies on FAW, up from 46% in 2012, while publishing formal improvement objectives and targets for FAW went up from 26% to 79%. Still, one in five have not executed on the latter, which in the end is what showcases accountability and corporate initiative to external stakeholders. The report further stated that corporations are too slow in delivering meaningful welfare impacts despite all the progress. Even though 79% of corporations have published formal objectives and targets for improvement, many are not disclosing improved welfare for animals. Furthermore, the report points out that investors play a major role in influencing corporate practice and disclosure of FAW. Investors can use their financial influence to urge corporations to take action (Amos et al., 2021).

The 2021 BBFAW report also included findings of the first regional benchmark, BBFAW Nordic, using the same methodology as the global benchmark. Interestingly, the inaugural Norwegian benchmark, including 26 leading food retailers, wholesalers, producers, restaurants and bars in Norway, produced some positive results. 92% recognize FAW as a corporate issue, however, few have published FAW policies (62%). These positive findings might exist because it is mandatory for Norwegian corporations in the meat and egg industry to

report on FAW. Therefore, Norwegian agricultural corporations have a strong foundation of FAW performance that they can continue developing and improving on. On the other hand, Norwegian corporations provide only the basic and minimum details about internal and supply chain governance. Disclosure of management approaches and performance is also limited or not presented at all (Amos et al., 2021).

Consequently, failure to disconnect FAW with broader CSR goals can be a two-faced problem for corporate communication. Firstly, full environmental and health implications are frequently neglected when FAW issues are considered in line with other sustainability issues. Secondly, when more wide-ranging CSR goals are developed and measured, FAW tends to be missing (Lever & Evans, 2017). As this chapter demonstrated, corporations are increasingly concerned about animal welfare, yet communication tends to be inefficient and not aligned with consumer knowledge and expectations of the issue. For that reason, the next chapter will be about how corporate awareness of consumer expectations, sources of information, and industry knowledge can help reduce information asymmetry through communication.

2.1.1 Aligning Corporate Information with Consumer Expectation, Sources and Knowledge About Farm Animal Welfare

There are a multitude of factors that play a role in corporate communication. Corporations are under pressure to remain differentiated in a corporate environment crowded with competitive messages, with particular emphasis on articulating themselves consistently and justifiably at the same time (Argenti, 1998; Christensen & Cheney, 2000; Fombrun & Rindova, 2000; van Riel, 2000). The way corporations must connect with stakeholders' expectations and interests have transformed itself immensely since the beginning of the new millennium. Corporations have slowly come to realize that they cannot hide from their own exposure, especially given the outright demand and flow of information accessible to the outside world thanks to the introduction of the internet and social media platforms (Wertime & Fenwick, 2008; Winer, 2009). Media and business analysts are also progressively on the outlook to scrutinize corporations. It has become somewhat normal ever since the corporations themselves were held to laws and regulations that require them to uncover information related to corporate plans and actions, such as through fiscal reports (Deephouse, 2000; van Riel, 2000). Despite

this, corporations only tend to emphasize FAW in relation to broader responsibility issues that portray the corporation as a socially responsible corporation (Kim & Rader, 2010; Morris et al., 2019).

Nonetheless, much of this public pressure derives from consumer expectations. Consumer expectation of FAW started without any doubt as a question of palatability. The common perception was that you would be part of animal cruelty at some point if you chose to eat meat. Many consumers were collectively uneased by the thought of animals suffering from deprivation and lack of life quality when going through extraordinarily intensive systems (Schröder & McEachern, 2004). This later developed into coexisting, yet conflicting perspectives of FAW. On one side, consumers see themselves as citizens with influential power on governance and regulations, while on the other side, they are consumers at the point of purchase. In the role of a citizen, a person would support the cause of animals having rights to proper welfare and a good life. However, as a consumer, especially meat consumers, people tend to lose that cognitive link. They forget that the meat they are buying was once a breathing animal, much because all of the traits that characterize an animal would no longer be recognizable on the processed and packaged product (Autio et al., 2018). Schröder & McEachern (2004) adds that FAW might therefore be more connected to citizenship issues, hence a government-related issue and not consumer-related, something corporations should be aware of when choosing how to communicate responsibility-related issues.

Although consumers continue to call for more welfare information (Chilton et al., 2006; Clark et al., 2017; Lagerkvist & Hess, 2011), the source of this information is imperative. In the U.S., McKendree et al. (2014) saw that few Americans have personal experience with animal production practices, meaning most of the public depends on the media to get information about animal production. Their survey found that 56% of the respondents had no primary source of FAW information. However, most respondents who had a primary source of FAW information mentioned animal rights organizations (e.g., PETA and HSUS) and other NGOs. Some of the NGOs would be credible, but they could also be biased toward an agenda or unrealistic views of practical production in some instances. The same survey made it clear that young women seem to be the most concerned about FAW issues, nonetheless consumers from all demographic backgrounds did not have a credible source of information concerning FAW

(McKendree et al., 2014). These findings were confirmed by Kupsala et al. (2015), where almost half of the consumers contested the reliability of promotional animal welfare information targeted toward consumers. Also here, women and young respondents stood out as factors leading to greater animal welfare concern. Moreover, the Finnish study also found urban residency, non-farming background, and social-equality attitudes to be predictors of animal welfare concern.

All of the factors mentioned become an issue for consumer knowledge of FAW, even more so when you consider that most consumers today do not have first-hand experience with farm animal living conditions (Vallera & Bodzin, 2016). As the community has become increasingly urban, the public understanding of FAW increasingly relied on information sourced from television, internet, newspapers and social media. Less people are having real life experiences with farm animals and -practices (Evans & Miele, 2012; Vanhonacker & Verbeke, 2014). This issue is primarily caused by fostering animals hidden from public view, such as barns, cowsheds, hatcheries, and piggeries. As a result, consumers tend to establish their perceptions of animal welfare from other interactions, such as at the zoo or with their household pets, and not through the lives of actual farm animals (Autio et al., 2018). In fact, Evans & Miele (2008) stated that European consumers are *‘closer to the fork than to the farm’,* highlighting that the lack of experience and knowledge of farm practices with European consumers is one of the factors shaping their views on FAW.

With that being said, all people have different expectations, sources of information, and personal experiences. Therefore, all people also respond differently when subjected to new information and in a way that is determined by involvement, knowledge, attitude, lifestyle, and socio-demographics (Verbeke, 2008). Salaün & Flores (2001) also found that consumers often ignore food information because of its irrelevance to their needs and expectations. Despite this, other research has found that corporate communication still has the power to influence consumer knowledge, attitudes, and decision-making, enough so to impact consumer food choices (Verbeke, 2009). For that reason, we will continue in the next sub-chapter by looking at examples of how corporate communication possibly can educate consumers about FAW.

2.1.2 Educating Consumers Through Corporate Communication of FAW

As mentioned earlier, most consumers seem to base their opinions and concerns surrounding FAW issues on little or no knowledge of, or experience with, animal production practices (American Humane Association, 2013). Additionally, the world is becoming more urban (Kupsala et al., 2015) and increasingly concerned about the welfare of livestock (Hill et al., 2021). Ergo, the general public can be prone to misconceive food communication compared with stakeholders who are more involved with the food industry through line of work (Hansen et al., 2003; Lazo et al., 2000). Another likely impacting factor is related to the public's different background, lifestyle, attitude, and knowledge. This could make them perceive information in different frames of reference. Moreover, FAW issues often become somewhat of a subjective problem for stakeholders, especially for non-experts and less industry knowledgeable stakeholders (Verbeke, 2009).

For corporations to combat this and gain increased acceptance for modern animal production systems, they have to combine FAW monitoring and assessment with proactive and targeted communication (Rim et al., 2019; Verbeke, 2009). Additionally, since consumer education on livestock living conditions is needed, corporate communicators in the meat industry should bring the consumer closer to animal-based food production. Increased visibility and blunt exposure to farms would help educate consumers about where meat comes from, reducing alienation from the animal itself (Spooner et al., 2014). In Canada, this was accomplished by engaging schools in farm-based education, inviting consumers to farm tourism, or buying meat directly from farmers (Spooner et al., 2014). In the UK, retailers like Tesco have built educational programs such as the 'Farm to Fork' program, intended to inform primary school children where food comes from (Tesco, n.d.). However, most of these examples are targeted toward schools and underaged citizens, which is not necessarily considered ethically appropriate from a marketing perspective (Morton & Treviño, 2021). But the Finnish study by Autio et al. (2018) highlighted that it is also difficult to determine how to best educate adult consumers about the food industry.

Preferably, corporations in the food industry should govern information sharing by identifying a target population and making efforts to understand their distinctions, from which they will bear in mind when producing information that is relevant, convenient, and efficient (Verbeke, 2005). Research has found that this bodes well for corporations communicating in the food industry. Nevertheless, we

believe there is a discrepancy between how corporations and the public perceive and interpret transparency in the meat industry. Therefore, one could say that the degree of acceptable transparency is to be defined by the receiver of the message themselves as corporations try to align with public expectations. It is right to say that information is necessary for knowledge and insight, but knowledge and insight are also necessary to decode information. Elevated access to information might therefore have a counterintuitive effect, contributing to distrust and increased alienation, depending on the audience's preconditioned knowledge about what is being communicated (Bateson, 1972; Christensen, 2002).

This chapter has highlighted that there is a need for consumer education of meat production and FAW, from which the latter can be an asset for effective corporate communication. However, challenges remain, such as adults emphasizing price and lacking accurate or credible knowledge of the meat industry. However, it is wrong to expect that improved or more available information could assist in solving information asymmetry (Verbeke, 2009). This makes us ask whether information asymmetry between farmers and non-farmers, two groups with varying levels of industry involvement, is affected by corporate transparency when information is disclosed. Hence, in the next chapter, we will try to understand this notion better by defining transparency in the meat industry, why transparency is essential for corporate communication of FAW, and how asymmetrical expectations of transparency shape perceptions of FAW.

2.2 Corporate Transparency

Internet, social media and other sources of information in the new digital age have given birth to a public expectation that a corporation has to contribute to transparency by disclosing information (Christensen, 2002). Nonetheless, it is uncertain whether one can claim that all this posturing, information exchange, and responsiveness that has come with it has established 'real' transparency. Sullivan et al. (2017) remarks that several meat producers claim a lot happens behind the scenes, yet choose not to report on all of these activities. Although this might be true, the lack of disclosure implies that corporations are not prepared to report on actual performance of FAW policies. Corporations that don't publish FAW policy documents or couple them to actual performance towards the goals of the policy, are more prone to be confronted with questioning stakeholders. In such cases, stakeholders want to know why the policy is not viewed as a desirable instrument

to manage ethics, integrity, and social responsibility in the corporation's operations (Kaptein M., 2004; MacLean et al., 2015).

2.2.1 Defining Transparency

Bushman et al. (2004) defined 'corporate transparency' as *"the extent to which firm-specific information is credibly disclosed to market participants"*. Although there seems to be a shared understanding of what transparency is, most definitions are diffuse and broad without giving clear answers as to what the transparency characteristics or traits are. Prior research has indicated several different characteristics and requirements that label corporate communication transparent in the eyes of key stakeholders. In *"Hide or Confide: the Dilemma of Transparency"*, Hofstede et al. (2004) explained transparency of a supply chain as the degree to which stakeholders, i.e., consumers, shareholders, governments, and employees, have access to product-related information. This definition implied that for the disclosed information to be transparent, it had to be relevant, accurate, factual, reliable, timely, available in the correct quantity, and written in a readable and reasonable way. While Bushman (2004) viewed transparency as an element of openness, Hofstede (2004) also implied that the information needed to be substantial and understandable in order to be considered transparent.

Fombrun and Rindova (2000) recognized transparency as *"a state in which the internal identity of the firm reflects positively the expectations of key stakeholders, and the belief of these stakeholders about the firm accurately reflects the internally held identity."* Their definition conveyed transparency as a mutual understanding between the internal identity of the firm and key stakeholders. However, they did not indicate what traits were needed for it to be a mutual understanding. Carroll & Einwiller (2014) investigated transparency signaling, discovering how corporations can communicate either positive or negative signals depending on how well the information meets the necessary traits. This study involved traits such as accuracy, concreteness, and timeliness (Carroll & Einwiller, 2014). They emphasized that for communication to be transparent, corporations should try to minimize or eliminate negative signaling (i.e., inconclusive information, exaggerations, and hesitation) while increasing positive signaling (balance, taking ownership of one's message, accuracy, concreteness, timeliness, and guidance and direction, which entails specifics on what, where, when and who)(Carroll & Einwiller, 2014). While the concept of corporate transparency has

been around for many years, there is little research that proposes a definitive construct and set of characteristics to define transparency. The research from Rawlins (2008a) might be the closest to this, having constructed a comprehensive stakeholder measurement tool that highlights several transparency efforts. Through examining past research, Rawlins defined transparency accordingly to measure the transparency effects:

"Transparency is the deliberate attempt to make available all legally releasable information - whether positive or negative in nature - in a manner that is accurate, timely, balanced, and unequivocal, for the purpose of enhancing the reasoning ability of the public and holding organizations accountable for their actions, policies, and practices".

As a result of the scarce and varying research defining traits and characteristics of transparency in the food industry, our research will utilize Rawlins's definition of transparency as the benchmark due to it being the most comprehensive model.
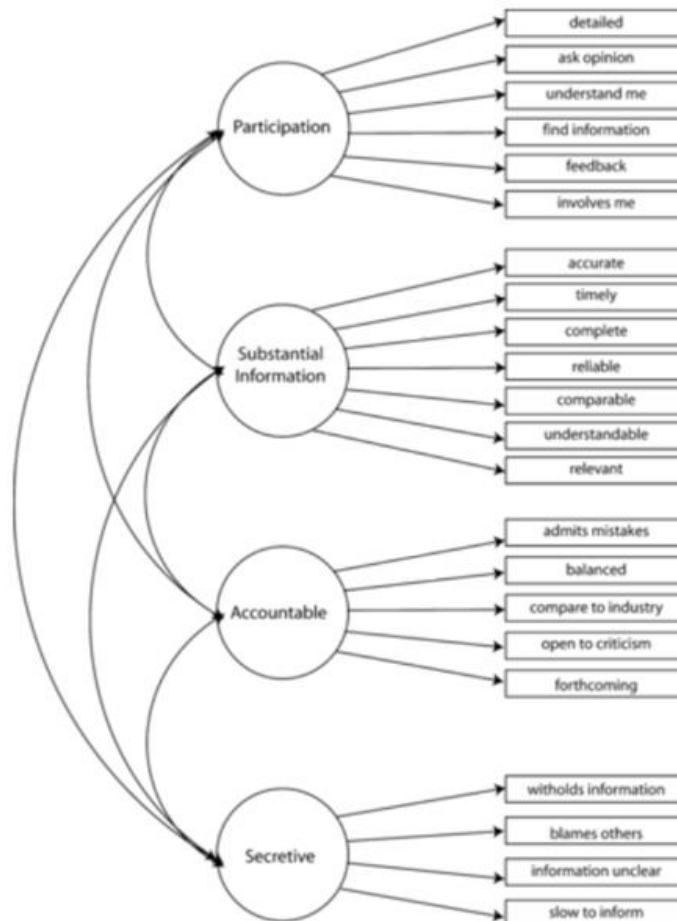
Figure 1: *Rawlins' proposed model on transparency efforts*

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Three factors need to be defined to further investigate transparency effects of corporate communication: *accountability, participation,* and *substantial information* (Rawlins, 2008a). 'Substantial information' concerns to what degree the information is substantial in the eyes of the consumer. The substantialness of the information is impacted by several variables: *relevance, clarity, timeliness, and comparability.* Without substantial information, corporations struggle to achieve transparent communication in the eyes of the consumer (Rawlins, 2008b).

The second factor, 'participation', relates to stakeholders identifying information they need through interaction and feedback between corporation and stakeholder. The variables that impact high or low participation are: *involvement, detailed information, the ease of finding information, feedback,* and *the initiative of corporations to understand and ask for stakeholders' opinions* (Rawlins, 2008b). Cotterell (1999) meant that participation in acquiring, distributing, and creating knowledge is essential to achieving transparency.

'Accountability' involves to what degree the disclosed information *admits mistakes, offers a balanced perspective, is forthcoming,* and *whether it is comparable to other industry actors* (Rawlins, 2008b). Corporations viewed as transparent by stakeholders have proven to be accountable for their words, and not least, their actions (Rawlins, 2008b).

Rawlins (2008a) also highlights a fourth factor, called 'Secretive'. It is the closest to what would be defined as 'openness' and involves: *withholding information, placing blame on others, obfuscating the message,* and *other secrecy-related actions.* However, we do not include this factor because the meaning of secretiveness is reversed compared with the other three transparency efforts. Secrecy means deliberately hiding your actions, while transparency is all about revealing them (Florini, 1998). Adding the fact that corporations should aim to score low on secrecy and high on the other transparency efforts (Rawlins, 2008a), we decided not to look much more into this factor for the sake of our study methodology. We are more interested in how various degrees of revealing, or disclosing, FAW information proactively will affect consumer perception of corporate transparency effort rather than the accepted degree of withholding information.

2.2.2 Why Transparency Is Important

Earlier research on corporate transparency highlights that trustful and open corporate communication improves stakeholder perception and understanding of corporate actions (Albu & Wehmeier, 2014). Transparency enables individuals to increase their reasoning ability and ultimately make more informed decisions (Rawlins, 2008a). Additionally, the public now expects corporations to operate in an ethical manner, which forces consumers to trust corporations (Hosmer, 1995). Communicating with trust is crucial for corporations, especially for the food industry (Schlegelmilch & Pollach, 2005; Vanhonacker & Verbeke, 2014). Rim et al. (2019) proved that transparency signaling can positively influence trust, giving evidence to the fact that transparent communication builds consumer trust.

Although transparency has become an asset in corporate communication, it has also become a necessity. Increased availability of information has contributed to more frequent skepticism and lack of trust amongst the public. Just in the last decade, food scandals have been a large contributing factor of skepticism towards the food industry. NGOs have highlighted malpractices within the sphere of FAW, unhealthy use of GMOs in food, and other environmental consequences resulting from food production practices (Luhmann & Theuvsen, 2016). Moreover, the public has gradually become more aware of the implications modern food technology has on a stringent food supply chain, especially due to the environmental decline (Hallman et al., 2003). Food production is more complex than ever, which raises several ethical issues in relation to agricultural practices and the food supply chain (Olsen & Bánáti, 2014). Consumers are increasingly concerned of whether technological advancements in food production are for the consumers' best interests or simply added to evolve the organization's self-serving motives such as profit and efficiency. Such advancements have taken the food production process behind closed doors, making it less transparent for consumers who become less involved with food production.

Consumers' growing concern about unethical agricultural practices, especially concerning FAW and organic/natural production, has created an increased consumer demand for animals to be bred, transported, and slaughtered under humane conditions. Food safety, health- and environmental repercussions, and farming practices are top-of-mind in the eyes of the public. It is becoming a big concern all around the world. Especially in Europe, FAW is highly important to consumers (European Commission, 2005), and many countries have adopted

legislations to administer and control welfare standards. Even retailers and other larger purchasers of meat have started to demand transparency from their suppliers, as well as requiring more frequent auditing of production and processing facilities to ensure that their product (a) complies with legal standards and (b) satisfies at least the bare minimum FAW standards. Several studies have suggested that environmentally-focused transparency aids consumers in understanding the motives of a corporation's environmental initiatives (Meise et al., 2014; Reynolds & Yuthas, 2008; Tapscott & Ticoll, 2003; Teas, 1993). Transparency can be impactful in earning back consumer trust and reducing skepticism. However, a corporation being transparent about its progress and setbacks does not necessarily affect the public's perceptions of the corporation's competence or reputation. Therefore, corporations have become accustomed to focusing on communicating the successful aspects of their operations. Rarely do corporations disclose harmful results of their actions or even failure of their own goals, as this could severely cripple their image amongst the public (Coombs & Holladay, 2013). In fact, it could cripple a corporation by focusing on primarily successful aspects, as consumers do not find themselves interested or involved with what a corporation has to say about themselves and seem fed up with their efforts to fabricate transparency (Christensen, 2002). Contemporary literature suggests that corporate communicators should be more open and honest, even if the corporation has not met all of its goals or commitments (Chen, 2013; Rim et al., 2016). The public needs to trust a corporation, and when they do, positive corporate reputation increases and loyalty is given (Hong & Rim, 2010; Vlachos et al., 2009). FAW is in high demand with today's consumers, and for consumers to trust a corporation on their FAW practices, it seems only logical that transparent communication is needed to build that trust.

2.2.3 Asymmetrical Expectations of Transparency

As availability of information inflates and public expectations of corporate transparency increases (Wehmeier & Raaz, 2012), a new phenomenon called *"open washing"* has emerged. Unlike greenwashing, which involves corporate efforts to make people believe that your corporation is doing more for i.e. FAW issues than it really is (Cambridge Dictionary, 2022), open washing concerns individuals disagreeing with a corporate claim of being transparent (Heimstädt, 2017). It is

evident that this has formed from a disparity in consumers' expectations of what the degree of corporate transparency should be (Heimstädt, 2017).

Although the research on consumer expectations of transparency is scarce, it is apparent that corporate and consumer expectations of transparency do not always align. Given transparency's wide interpretation amongst the public and corporate fear of media scrutiny, corporations act with care when it comes to disclosing FAW. In recent years, Norwegian media has exposed several cases where agricultural corporations have been challenged on their FAW practices, resulting in the media depicting the meat industry as insufficiently transparent and fairly unethical. In 2022, a corporation denied a FAW-focused NGO to document the living conditions of a specific type of chicken breed that grows abnormally fast to increase efficiency and profit. The media criticized it as an unethical FAW practice and questioned the corporation's interest in FAW (Gramnæs, 2022). Another case involved a corporation dropping one of its slaughterhouses, which was also criticized due to the next nearest slaughterhouse being further away, meaning the animals would have to travel further in trucks with poor living conditions. Although the corporation claimed to be well within the law, media and NGOs felt the reason was inadequate (Nordrum, 2021).

Heimstädt (2017) confirmed that corporations disclose information they believe consumers expect. However, if a corporation receives public backlash for not disclosing information to their level of expectation, it is discernible that there is a disparity in what the corporation believes consumers expect from them and what really is expected from them when it comes to transparency communication of FAW. This information asymmetry, or gap in information, might come from the fact that there is scarce research that highlights this issue. Therefore, this study intends to investigate how various degrees of FAW disclosure are perceived by consumers, who are split into farmers and non-farmers, as it can contribute to the corporate understanding of how to minimize disparities of expected transparent communication.

3.0 Research Question, Hypotheses & Conceptual Model

In this chapter, we will shed light on the relationship and connection of the constructs in this research paper by outlining our research question and hypothesis into a research framework.

3.1 Research Question

The meat industry is dealing with the challenge of equipping consumers with more explicit information about farm animal welfare (Font-i-Furnols & Guerrero, 2014). However, there is scarce research about how transparent one should be and if it can minimize informational disparities between farmers and non-farmers through proactive corporate communication. Derived from the above introduction, we highlight the following research question:

To what degree should a corporate communicator be proactively transparent when disclosing information about farm animal welfare (FAW) practices?

3.2 Hypotheses

In this study, asymmetric information refers to content-processing situations in which some consumers in the market have more information than others and/or different skills in information processing (Martínez-Ferrero et al., 2018). Specifically, in this study, it is used to refer to the knowledge or information gap between farmers and non-farmers. *Transparency* is a mechanism that decreases such information asymmetry between two parties. Indeed, if stakeholders knew more about business actions related to FAW, they would more accurately value the alternatives presented. Otherwise, a lack of information disclosure can generate incentives for some to obtain private information, which would increase information asymmetry (Diamond & Verrechia, 1991; Lambert et al., 2007). Previous studies have shown that there is less information asymmetry between groups when disclosure of the information is higher (Grossman & Hart, 1980; Milgrom, 1981; Verrechia, 1983). Information can shift consumer expectations; therefore, it plays an integral part in the notion of perception (Piqueras-Fiszman & Spence, 2015). Nonetheless, reporting of FAW continues to be a lagging part of the communication of corporate responsibility (Amos & Sullivan, 2015). Even though it has improved in the last two decades, corporations maintain their habits of communicating their actions and results in reactive documents of marginal

importance to the consumer (i.e., fiscal reports and sustainability reports) or 'unseen' sources of low status that only exist for a short period of time (i.e., company magazines or blogs). Thus, disclosure of FAW is limited. A possible explanation could be that corporations are afraid that too much FAW disclosure, regardless of emphasizing positive or negative results, will contribute to continuous criticism from the public. This criticism is particularly apparent if other corporations do not disclose information to the same degree as themselves (Amos & Sullivan, 2014).

However, Rim et al. (2016) found that corporations should not shy away from transparent communication. Instead, corporations should embrace it by implementing it into 'proactive' routines to enhance positive consumer perceptions. Still, we have not seen much research investigating to what degree one should be proactive when disclosing corporate information and how this affects stakeholder perception of the corporate transparency efforts when the stakeholders have different foundations of industry knowledge. Thus, we explore the following hypotheses:

H1: *Respondents exposed to high FAW disclosure will have more positive perceptions of a corporation's transparency effort than respondents exposed to low FAW disclosure.*

H2: *Respondents exposed to high FAW disclosure will have more similar perceptions between groups than respondents exposed to low FAW disclosure.*

As the public's interest in agricultural practices is as high as ever, parallel with the modern world moving away from a rural lifestyle where one produces their own food (Rim et al., 2016), the meat industry faces a handful of challenges concerning consumer perception, namely in terms of FAW (Troy & Kerry, 2010). The lack of prior knowledge and opinion may increase consumer susceptibility to the sway of new information (Huffman et al., 2007). A study by McComas et al. (2014) highlighted that people with more knowledge about bioengineering have a better perception of GMO products than less informed people. A Danish study further confirmed that high scientific knowledge is tied to more positive GMO attitudes (Mielby et al., 2013). Although these examples are concrete towards GMO and processed food, the finding that expert knowledge leads to better perception makes

us ask whether one would see the same effect with disclosure of animal welfare practices.

Vaccines are sometimes part of animal welfare practices, which are used only when necessary in Norway. Engelstad (2005) investigated Norwegian consumers' perception of vaccines in the aquaculture industry, which are portrayed as a healthy precautionary measure toward disease management and to reduce fish mortality by those involved in the industry. However, consumers see it differently, perceiving vaccines as something foreign and genetically induced that they do not want to consume. Their lack of knowledge or familiarity with the vaccines may spark skepticism, even when experts provide well-documented information, as consumers tend to stick with their pre-meditated opinions. Similarly, in Belgium, Verbeke et al. (2007) found that lack of awareness and accurate knowledge led consumers to evaluate farmed- versus wild fish based on stereotypes, image transfer, and emotion rather than factual knowledge and personal experience. We are interested in whether we would see the same effect in relation to the meat industry, to the degree that those more knowledgeable about the industry and FAW might have more positive perceptions of corporate disclosure than those with less knowledge. Thus, we present the following hypotheses:

H3a: *The level of industry knowledge moderates the relationship between the degree of FAW disclosure (IV) and perceived transparency effort (DV), such that the relationship is stronger when industry knowledge is higher.*

H3b: *Respondents with higher industry knowledge will have more positive perceptions of a corporation's transparency efforts than respondents with lower industry knowledge.*

Korzen and Lassen (2010) detailed how perceptions of meat differ between contexts; "everyday context" (buying, preparing, and eating) and "production context" (production, slaughtering, and meat processing). Farmers would be more involved with the production context, while non-farmers would be more familiar with the everyday context. The reasoning behind the division of contexts is that perceptions are not only associated with basic senses like visual, taste, and consistency. They are also linked with complex features of consumer behavior, like

intuition, learning, feelings, and personal experiences which non-farmers rely more upon in the absence of knowledge (Saher et al., 2006).

Furthermore, words used to communicate farm animal welfare to non-specialists may be more important than knowledge of welfare itself. Human perception is influenced not by what is said but by how something is said (Vigors, 2019). The British qualitative interview study, including farmers and citizens, found that citizens frame FAW as animals having 'positive experiences' or being 'free from negative experiences.' Contrastingly, farmers drew from their existing frames of animal welfare to frame positive welfare as 'good husbandry,' 'proactive welfare improvement,' or the 'animal's point of view.' Nevertheless, we do not know to what degree FAW disclosure may influence these stakeholders' perceptions of transparency efforts. Thus, we suggest the following hypothesis:

H4: *Farmers will perceive a corporation's transparency efforts more positively than non-farmers when FAW disclosure is low.*

3.3 Conceptual Model

This study investigates the signaling effect of transparent corporate communication within the meat industry and how consumers perceive the transparency effort depending on their prior industry knowledge. The research framework below is constructed on the belief that the varying transparency factors affect consumer perception of a corporate organization's intent, further highlighting how well a transparent communication strategy gains acceptance with the stakeholders of a meat-producing company, mainly farmers and consumers.
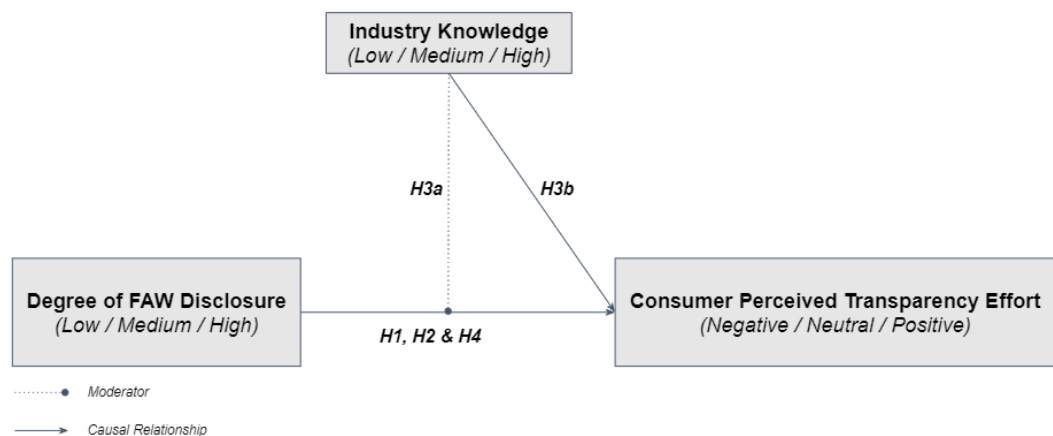
Figure 2: *Conceptual Model of the Study*

4.0 Methodology

In this chapter, we present the methodology of our thesis. We begin by laying out the research strategy and its design. Secondly, we will highlight the nature of our sample and go through sampling procedures before moving ahead with how the study will be operationalized. Furthermore, we will present how the experiment stimuli were manipulated in the main study before closing this chapter by assessing the validity and reliability and considering any germane ethical issues.

4.1 Research Strategy

The study examines how varying degrees of FAW disclosure in the meat industry may affect how farmers and non-farmers perceive a corporation's transparency effort. Adding to this issue is the information asymmetry between farmers and consumers, which is why we will examine whether industry knowledge moderates this relationship. Considering these are two distinct stakeholders with different interests, we also investigate how strongly prior industry knowledge influences this relationship. Thus, we see the need for a suitable research strategy and design that account for conclusive measurements that also address these practical concerns. With a research question, framework, and four hypotheses, we guide ourselves by taking a deductive approach, where the basis of the thesis comes from existing research. This approach conforms to the quantitative research strategy, as hypotheses are based on established theory and exposed to empirical inspection to falsify or confirm them (Bryman & Bell, 2015). Finally, we will discuss findings derived from the results of this thesis and outline potential managerial and theoretical implications. In order to obtain this information sustainably, we will move forward in both a qualitative- and quantitative design. We will introduce the qualitative pre-study before presenting the chosen method of the main qualitative study.

4.2 Pre-Study

We conducted six individual in-depth interviews to identify the essential aspects of transparent corporate communication and possible drivers of stakeholder perception of such information. These interviews were conducted to understand the issue's scope better and see which constructs may be more central to focus on in the upcoming quantitative main study. The in-depth interviews highlighted several important aspects, especially asynchronous viewpoints and understandings of what

transparency means for the respondents, and analog factors of transparency. Please review our pre-study findings in the sub-chapter 4.2.3 Individual In-Depth Interviews.

4.2.1 Exploratory Design

Exploratory research designs are used to absorb new knowledge about a given area of interest and will increase insight and determine any connections that can occur (Saunders et al., 2012, p. 171). We utilized an exploratory design because we had little insight into the thoughts of farmers and non-farmers in the meat industry. Therefore, we needed to understand better what those stakeholders thought, perceived, and acted according to their experience with corporate communication and transparency in the meat industry. Although the design does not give us a concrete answer to our problem statement, it provides information to better understand the problem area and what to test for in our exploratory research.

Techniques used to conduct an exploratory design can be qualitative interviews such as focus groups or individual in-depth interviews. In this assignment, we conducted individual in-depth interviews as one got closer to each individual answer, but it was also chosen due to convenience (Gripsrud et al., 2016, p. 103-119). In-depth interviews can be structured, quasi-structured, or unstructured. For an exploratory design, it will be most beneficial to implement a quasi-structured or unstructured interview (Saunders et al., 2012, p. 374-377). We conducted a quasi-structured in-depth interview where we followed an interview guide with four "Grand Tour" questions (see appendix A). These questions were centered around the meaning of transparency, perception of what corporate transparency should involve, how information availability has affected or skewed the understanding of transparency, and thoughts regarding how to improve the information disparity between farmers and non-farmers. The respondents were allowed to answer freely and elaborate on notable interests, allowing us to collect as much real data as possible. Although, the interview moderator probed interesting discussions relevant to the research question. The design later allowed us to adjust or add content to our research, which would be further tested in the main quantitative study.

All in-depth interviews were conducted in one-on-one situations, each with a duration of 50-75 minutes. The interview structure started with general definitions and statements of the interview's purpose before quickly asking questions about the

interviewees' previous experience regarding transparency and corporate communication. The interviewee's knowledge about the meat industry was also briefly assessed before starting on the four Grand Tour questions, which highlighted "transparency," "corporate communication," "rise of technology as a source for information," and "communication challenges." The in-depth interviews ended by briefly summarizing the main discussion points.

4.2.2 Sample

The individual in-depth interviews were conducted with n = 6 relevant interviewees (2x consumers, 2x farmers, and 2x industry experts). The interviewees belong to one of the three different parts of the meat industry value chain. Thus, they have different perspectives of the meat industry and different prior industry knowledge, which can help us understand differences in perception, preference, and evaluation of transparent corporate communication between these groups. All were within the age range of 25 to 60 years old.

4.2.3 Individual In-Depth Interviews

The interviews highlighted that transparency is understood differently, and there is a significant difference in knowledge of transparency in the meat industry. When speaking to the interviewees, they struggled to put to words what transparency meant. Although the interviewees were later given examples of what transparency can be defined as within the meat industry, particularly regarding meat production, they still seemed to have difficulty defining transparency in their own words. Some interviewees were able to define transparency; however, they all had different understandings of transparency, giving reason to our previous assumptions about information asymmetry and varying expectations between consumers and more industry-familiar stakeholders.

The informational asymmetry of transparency seems to stem from differences in the desire and need to know what transparency is. Nevertheless, when discussing the previously defined factors of transparency in the meat industry - participation, accountability, and substantial information - most interviewees agreed that these factors were the most critical when evaluating corporate transparency. After the senior interviewer enlightened the interviewees on various definitions of transparency, most interviewees came up with answers synonymous with accountability, thus highlighting that accountability might be the most critical factor of the three concerning transparency.

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Other similarities were observed between farmers and industry experts regarding one of the core transparency factors - substantial information. Due to higher involvement in the meat industry and livestock management, farmers and industry experts believe that non-farmers have become less inclined to learn about the governance of farm animals, slaughtering processes, and meat production. These two groups believed that non-farmers had unconsciously or consciously distanced themselves from the farm animals to such an extent that they might not know what information was factual. As a result, farmers and producers find it challenging to be fully transparent about FAW in meat production because non-farmers might have difficulty believing that their practices are ethical. Interestingly, two interviewees, a farmer, and an industry expert, used the term "*Disneyfication*" to explain this situation. It is a term used to describe things or environments as something simpler, controlled, and safe at the expense of realness. Several industry-familiar interviewees believed that the unsettling reality of farmed meat production had led agricultural corporations to play along with this unrealistic consumer perception of FAW. Thus, communication from meat producers, processors, and supermarkets was believed to have been "Disneyfied" to match target non-farmer perceptions, although knowing that it does not paint the entire, factual picture of the industry. A recent example of this notion can be taken from a Norwegian agricultural campaign, where the gap was too large between the marketing of pig production and how farmers meant the meat industry in reality operated (Kampanje, 2021; Lie, 2021).

All interviewees agreed that corporations that withhold information could upset consumers and make them less likely to evaluate products related to that corporation. Nevertheless, the more hands-on the interviewee was with livestock and meat production, the more acceptable they seemed to be of corporations not disclosing all information about FAW practices.

4.3 Main Study Design

We chose a quantitative approach, using an online survey-based design to test our hypotheses. The online survey design gave us multiple advantages, including a convenient distributing method to gather large samples (Evans & Mathur, 2018). Within the online survey design, we included several structured questions, such as multiple choice and Likert scaled questions, and a 'consent form' in the beginning.

In order to comply with research ethics and GDPR regulations (Knoeferle, 2021; University of Oxford, n.d.), participants needed to give consent to information gathering in order to proceed with the survey. If consent was not given, the data was not collected, and the participants were not allowed to complete the survey. Following GDPR and NSD regulations, the study was anonymous to the participants. Only demographical data on the respondents' age, gender, and farmer/non-farmer criteria were collected. No personal data was collected, and the demographical data were used to categorize the respondents and analyze for information asymmetry in the results.

4.3.1 Between-Subject Experimental Design

For this study, we used a between-subjects design to identify any between-group effects on how the respondents perceive various degrees of corporate FAW disclosure in the meat industry. In addition, we wanted to see if each respondent's meat industry knowledge moderates the perceived transparency effort of FAW disclosure. Respondents are only subjected to one random treatment condition (Keppel & Wickens, 2004), either manipulation X_a, X_b, or X_c, yet all respondents answer the same set of questions (O) linked to perceived transparency effort (see table 1).

We can investigate which treatment provides the best-perceived transparency effort by manipulating the degree of corporate disclosure the respondents receive. The results can support corporate communicators at meat-producing companies in how they should strategically and proactively be transparent in their communication and understand which treatment delivers the least information disparities between the two stakeholder groups, farmers vs. non-farmers.

Table 1:
Between- Subjects design with three treatments

	Manipulation	Perceived Transparency Effort
High FAW disclosure	X^a	O
Medium FAW disclosure *(Control Group)*	X^b	O
Low FAW disclosure	X^c	O

Moreover, the questionnaire also gave us the chance to control for other possible variables that could influence the relationship, such as age, gender, and whether they were a farmer or not. It is worth noting that such a design rejects the possibility for us to analyze changes in the respondents' perceptions before and after

the manipulation, including if the manipulation resulted in any difference or not, as we do not have a baseline measurement of information perceptions in a pre-test (Cooper, 2010; Bryman & Bell, 2015). Lastly, these quantitative techniques are then used to interpret and draw conclusions about the relationships between the independent and dependent variables (Gripsrud et al., 2006, p. 50-52).

4.3.2 Sample

Although non-probability convenience sampling is not preferable, considering it weakens the study's validity and generalization (Bryman & Bell, 2015), the thesis is put under constraints regarding the chosen exploratory method and its external validity (Shadish et al., 2002; Bryman & Bell, 2015). Therefore, our convenience sample was made accessible to us from personal networks. We published the questionnaire through social media, where Facebook and LinkedIn were believed to attract the most respondents (Verma, 2022). Additionally, the questionnaire was sent to Nortura, who distributed it through their network of farmers. It is necessary to underline that the study's goal is not to generalize our findings but to discover and interpret potential influencing relationships between the study variables as highlighted in the research framework. We have, in this instance, selected a few sampling criteria that could aid the study in this, as shown in Table 2 below.

Table 2:
Sampling selection criteria – Main study

- Norwegian speaking citizens
- Between 18-79 years old
- Carnivores (eat meat)

As we want to study the perception of Norwegian meat consumers, farmers and non-farmers alike, the survey was created in Norwegian to meet the criteria of having Norwegian-speaking respondents. This selection criteria ensures that the data is not influenced by people who relate more to foreign meat industries as such people are likely not to have grown up in Norway. Foreign meat industries might operate differently and could potentially have stricter or more slack regulations, which could influence a person's perception of how the Norwegian meat industry communicates. Furthermore, we set the age limit of the survey to 18-79 years old, as this often is a good representation of shoppers in the Nordics (PostNord, 2018). Additionally, the lower age limit also reflects the Norwegian guardianship act, which states that 18 years old is the age limit for overtaking a farm without having

to get the consent of the county governor (The Norwegian Ministry of Justice and Public Security, 2010).

4.3.3 Pretest of Survey

We pretested the survey qualitatively on a select few respondents (N=5) to clarify and detect ambiguities within our survey. A preview link to the survey was sent to them through Facebook Messenger. Respondents were asked to take the survey as usual but pay more specific attention to the structure and meaning of the questions. Afterward, respondents were urged to give their feedback concerning the survey structure. The goal of these pretests was to make the questions coherent with what we intended to measure. The pretests were repeated three times, where the same respondents took the survey after each round of improvements. The feedback from the tests benefitted the survey with favorable adjustments, although only minor changes were made to help clarify a couple of questions and improve user-friendliness.

4.3.4 Procedure

The Qualtrics survey was distributed using personal networking platforms, i.e., Facebook, LinkedIn, and email. On Facebook and LinkedIn, the study was shared indirectly through page posts that are viewable for all within the respondents' contact list. The page posts contained a short informational text about the study and its approximate completion time. At the bottom of the posts, the uniform resource locator (URL) link to the webpage where the respondents can participate in the survey is attached. The survey was also distributed to farmers who are members of Nortura by email. Like the social media posts, the emails included a short informational letter briefly describing the study's purpose and approximate execution time, with the URL link to the online survey. All respondents were distributed with a reusable anonymous link that did not track internet protocol (IP) address location or any indicator to identify the respondents. The questionnaire was administered using Qualtrics, the preferred survey tool by multiple universities, including BI Norwegian Business school. The questionnaire was set in motion in the spring of 2022. After the data collection was completed, all participants who only partially completed the survey were removed. The survey data was then exported from Qualtrics and imported into IBM's SPSS statistical analysis software. All statistical analyses were conducted by using IBM SPSS Statistics 28.

4.3.5 Manipulation

By executing a between-subject design, all predictor variables are manipulated between participants so that respondents are only exposed to one treatment condition. For the research to investigate the effect of transparency in corporate communication, our IV manipulations were conducted based on previously identified factors of communicative transparency efforts by Rawlins (2008a). The manipulations of these three factors were either in low, medium, or high degrees of information disclosure. We accounted for extraneous variables such as labels, imagery, and text positioning, by only manipulating the text in each treatment.

4.3.6 Measurement

All measurements and stimuli are conducted in Norwegian instead of English since all respondents speak Norwegian and have it as their primary language, ensuring that respondents understand the questions and statements more easily.

Industry knowledge - In testing for industry knowledge, each respondent was forced to answer 8 statements about the Norwegian meat industry on a dichotomous scale (true/untrue). We wanted to force an answer to be able to measure the respondents' knowledge objectively. A Likert scale would make it too subjective as respondents could over- or underestimate their knowledge. Additionally, adding "i don't know" as an option would leave us with considerable missing data that would make it challenging to group respondents' knowledge levels. The dichotomous format would be similar to an exam (see appendix B), which is why we also scored the assessment using percentile rank scores. This format allows us to compare respondents' knowledge levels with each other, seeing that we do not have a reference group to base the assessment on (Logsdon, 2021). Therefore, we summarized the respondents' scores on the 8 items into one new variable called "Total_Knowledge_Score" and divided the test scores based on percentiles, just like in a standardized test. A correct answer gave 1 point and incorrect 0 points. Each point would give 12.5%, in total giving you 100% if a respondent answered 8 correctly (see appendix D). Following this structure, a respondent with;

- 0-4 correct answers (<50%) would be considered to have low industry knowledge.
- 5-6 correct answers (50-75%) would be considered to have average, or medium, industry knowledge.

- 7-8 correct answers (>75%) would be considered to have high industry knowledge.

Perceived accountability - Perceived accountability was measured with a 5-item scale. All items are taken from the Rawlins model (see figure 1), which describes the degree of accountability as a dimension. All items were rated on a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). The reliability of the items linked to the perceived accountability was measured through Cronbach's alpha ($\alpha\_high\_treatment = .673; \alpha\_low\_treatment = .698; \alpha\_medium\_treatment = .536$). Usually, when looking at reliability statistics, we look for $\alpha > .70$. However, Pallant (2020) notes that it is difficult to get a high α with less than 10 items on a scale, in which an $\alpha > .50$ would be satisfactory. Therefore, we believe there is no cause for concern with the 5-item accountability scale and that the internal consistency between items is reliable when analyzing the data (see appendix E). An interesting observation is that α varies between treatment groups for accountability, which might hint that people answer more inconsistently on accountability with increasing FAW disclosure. Also, items linked with accountability have a lower Cronbach's Alpha than participation and substantial information, which we believe might have to do with the fact that it is hard to perceive corporate accountability in a consistent way solely from the written content.

Perceived participation - Perceived participation was measured with a 6-item scale. All items are taken from the Rawlins model (see figure 1), which describes the degree of participation as a dimension. All items were rated on a 7-point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). The reliability of the items linked to the perceived participation was measured through Cronbach's alpha ($\alpha\_high\_treatment = .843; \alpha\_low\_treatment = .807; \alpha\_medium\_treatment = .866$). Considering perceived participation was also measured with less than 10 items, we follow Pallant's (2020) rule of $\alpha > .50$, which makes the internal consistency between items very reliable when analyzing the data as all $\alpha > .80$ (see appendix E).

Perceived substantial information - Perceived substantial information was measured with a 7-item scale. All items are taken from the Rawlins model (see figure 1), which describes the degree of substantial information as a dimension. All items were rated on a 7-point likert scale ranging from 1 (Strongly Disagree) to 7

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(Strongly Agree). Again, reliability of the items linked to the perceived substantial information was measured through Cronbach's alpha *(α_high_treatment = .875; α_low_treatment = .863; α_medium_treatment = .895)*. Again, we have less than 10 items, and we conclude that the reliability of the items measuring perceived substantial information is very strong following Pallant's (2020) aforementioned rule (see appendix E).

Control variables - Age, gender, and farmer (yes/no) are all demographic variables we controlled for in the survey (see Appendix B). Respondents were asked to give their age by typing it in a text box, while the gender items (male/female/other) were translated from English to Norwegian. By using age and gender, we ensure that our sample contains an acceptable variance, potentially giving us valuable insight into the balance and structure of the survey respondents. This insight can be essential information since the structure of respondents' age and gender, in theory, can influence the results of the perceived transparency effort. Considering older consumers have had more time to gather information and experience with the meat industry than younger consumers, they might process information differently than their younger counterparts (Phillips & Sternthal, 1977).

Additionally, respondents were asked whether they were a farmer or not (yes/no). The reasoning behind this question was that farmers are more hands-on with farming practices and the agricultural supply chain linked with meat production. Hence, as shown to be the case in industries like education and science, the physical experience might also influence the perception of transparent corporate communication in the food industry (Ribeiro, 2014; Castillo et al., 2017).

4.4 Validity and Reliability

Validity and reliability refer to the survey's ability to measure what it aims to measure and, otherwise, the ability to produce consistent results. Both elements tell a lot about the quality of the study and are therefore considered very important in scientific studies. At the same time, to ensure verifiability, reporting these elements is necessary (Saunders et al., 2012, p.191-194).

Saunders et al. (2012) further state that you have a reliable examination if the survey delivers the same results multiple times. However, reliability is only a prerequisite and not a sign of the quality of the survey itself. To this end, high validity should be observed. Here we distinguish between various validity types.

However, concept validity is primary in this context. Concept validity refers to the degree to which we measure the theoretical concepts we intend to measure (Gripsrud et al., 2011, p. 94-102).

4.4.1 Validity Assessment of Survey

In this study, we have based ourselves on relevant and well-known theories within corporate communication and transparency, where the operationalization of the questions are carefully thought out. At the same time, a number of in-depth interviews were conducted with the target group in advance, and we, therefore, view the content validity as high.

Nevertheless, there will be low statistical inference validity due to the fact that we have chosen a convenience sampling method. We theoretically cannot conclude that certain variables correlate based on the statistical analyses we extract (Gripsrud et al., 2011, p. 94-102).

4.4.2 Reliability Assessment of Survey

We view the survey's reliability as high because the survey's research process has been structured, and the methodological decisions have always been intended to be thoughtful and consistent. To ensure consistent results, we performed pre-tests of the questionnaire and evaluated the survey setup before distributing the survey.

On the other hand, there will be uncertainty about how well thought out the answers will be, as the questionnaire is based on self-completion via the internet. At the same time, it was observed that not everyone completed the entire questionnaire, and biases in the data may therefore be a factor that threatens reliability.

4.5 Ethical Concerns

There is a need to highlight the ethical concerns connected to the methodology in this study and review how we could conduct said study respectably. Hence, this subchapter describes how we prepared for concerns relating to potential prejudice in our experiment, consent and deception, and data management efforts.

4.5.1 Potential Prejudice in Experiment

Issues linked to the ethicality of experiments could emerge considering the essence of such a method, and it could have the ability to impose harm or injury on participants that results or may result from some action or judgment, otherwise known as prejudice (Bryman & Bell, 2015). However, we did not see any potential

prejudice in the experiment conducted in this thesis. The industry knowledge testing questions in the questionnaire could cause stress and low self-assessment of one's knowledge of the meat industry. This low self-assessment could inflict respondents' later judgment of the experiment questions, yet, this is precisely the moderating effect we are trying to observe in this study, and the respondents are not subject to harm even if a respondent would react this way.

4.5.2 Consent and Deception

Informed consent means that the purpose of the research is explained sufficiently enough to the extent that the participant can decide whether or not they would like to participate (FDA, 2018; Bryman & Bell, 2015). A consensual document was provided to the participants at the very beginning of the survey, which included information about the purpose of the study, responsible parties, the reasoning behind seeking participants for the study, concerns about privacy and data, voluntary participation, and their entitlement to disengage from the study at any given time. Contact information was presented to the participants if they had any questions or concerns after recording their participation.

We did not provide the participants with the precise aspects of the study's purpose, process, or manipulation, since this could threaten the experiment. It allowed us to be confident that we had not primed the participants, thus creating experimental effects where participants would consciously change their behavior according to what is socially desirable (Bryman & Bell, 2015). We did not deceive any participants by leading them to believe that anything in the experiment was untrue but instead withheld some information to collect innate responses derived from the experimental conditions. Deception refers to providing false information to prospective participants (University of Nevada - Reno, 2021).

4.5.3 Data Management

This part deals with data management and how it does not invade a respondent's right to privacy, thus highlighting that only necessary data needed to complete the thesis study should be collected and managed appropriately (Bryman & Bell, 2015). We used Qualtrics as our survey distributor as they provide multiple tools for survey distribution and ensure data storage in a HIPAA-compliant secure database. We asked the respondents for their age, gender, and if they were a farmer or not. These variables were collected to control for their potential effect on our results and

sufficiently distinguish respondents from each other. Since such information is available to the public, none of the collected demographic data is sensitive. Due to the sensitive aspects of information on a respondents' communication perception and degree of product knowledge, all respondents were given an anonymous URL link that does not collect IP addresses and respondents' ID. Since we do not possess enough data to identify any of the respondents, we are within the data collection requirements of NSD; the Norwegian Center for Research Data (Norwegian Centre for Research Data, n.d.).

To ensure that the data during the research period were protected, all the data was stored in BI Norwegian Business School's HIPAA-compliant secure database with two-factor identification required for data access, only accessible to the authors of this thesis. All data were deleted after the experiment was completed.

4.6 Cleaning the Survey Data

After exporting our collected responses from Qualtrics into SPSS, the initial step was to prepare the data for several analyses, including cleaning the data and renaming each unit to identify which condition respondents were exposed to. In doing so, consistency checks were done in order to investigate any abnormal values and inconsistent responses.

In total, the data contained 396 total responses. We found 78 responses that were either seen as inconsistent, unfinished, or that the age was outside of our sample criteria. Having deleted these responses from the dataset, we were left with 318 responses. However, in addition to this, we only wanted carnivores (1=yes, 2=no) to be part of the study to not get any biased perceptions from vegetarians/vegans (Emig, 2021). Although not deleted, this control variable left us with only 306 valid respondents, as 12 respondents did not eat meat. Due to forcing a response on all questions in the questionnaire, we had no missing values besides the 12 who were not carnivores.

Firstly, for the industry knowledge assessment (1=true, 2=false), the values were recoded into 1 = correct and 0 = wrong because the assessment aimed to display the respondent's industry knowledge (for correct answers, see appendix D). We could then summarize each respondent's score and measure an objective industry knowledge from the number of correct answers. This score would be between 0 and 8 points since there were eight questions in this "exam." We then recoded "*Total_Knowledge_Score*" into a new variable called "*Knowledge_Level*"

for the sake of categorizing respondents into low (0-4 points), medium (5-6 points), and high (7-8 points) industry knowledge.

Secondly, a "*degree of FAW disclosure*" variable was created to give a condition value for each treatment group. The respondents subjected to the 'low treatment,' meaning low FAW disclosure, were given the value 1. The control group was considered to be exposed to medium FAW disclosure and given the value 2. Lastly, those exposed to the 'high treatment,' meaning high FAW disclosure, were given the value 3.

Third, because there were 18 questions in total concerning accountability, participation, and substantial communication information on a scale from 1-7, the perceived transparency effort could vary from 18 points to 126 points when accumulated (see appendix B for question items). Each score was then divided by the number of questions, which gave us the variable "*Avg. Perceived Transparency*" for each degree of disclosure (low, medium, high). This average would then determine whether the perception of the corporation's transparency effort would be negative (*Avg. Perceived Transparency* < 3.5), neutral (*Avg. Perceived Transparency* = 3.501 - 4.499), or positive (*Avg. Perceived Transparency* > 4.5). These values were determined by following the questionnaire structure of the Likert scale (see table 3). Subsequently, all respondents were merged in one nominal variable called "*perceived transparency effort*" (negative=1, neutral=2, positive=3).

Table 3: *Categorizing Respondents Perceived Transparency*

Recoding Perceived Transparency Effort of FAW Communication*							
Questionnaire Value	1	2	3	4	5	6	7
Questionnaire Label	Strongly Disagree	Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Agree	Strongly Agree
Perceived Transparency Effort	Negative	Negative	Negative	Neutral	Positive	Positive	Positive

*An average score above 3.5 and below 4.5 are considered to be neutral because they are closer to a neutral score of 4 than to a negative (3) or positive (5) score.

Finally, we also created a "*Generation*" variable that grouped respondents' age into Gen Z = 1 (12-25), Millennials = 2 (26-41 y/old), Gen X = 3 (42-57 y/old), and Baby Boomers = 4 (58-76 y/old). Because the sampling criteria was 18-79 years old, Gen Z got cut-off at 18, losing younger respondents in this generation.

Demographic information such as "*gender*" (1=Male, 2=Female, 3=Other) and "*farmer*" (1=Yes/Farmer, 2=No/Non-farmer) were also given labels.

5.0 Results

In this chapter, we will highlight the results received from the conducted tests.

5.1 Characteristics of Respondents

First of all, we looked into the demographics of the respondents (see table 4 & appendix F). With the 12 respondents who were not carnivores taken out of the analysis, the survey sample had a gender distribution of 62.4% male, 37.3% female, and 0.3% preferred not to disclose their gender or identify as other. The respondents' age varied from 22 to 77 years old, with a mean age of 44.23. The most frequent ages were 25 (8.5%) and 57 (4.2%), whilst the least frequent were 69, 70, 75 and 77 (all 0.3%). If segmented into their generations, we find that the largest group is Gen X (40.5%), followed by Millennials (25.8%), Baby Boomers (19.6%), and Gen Z (14.1%).

Additionally, 39.9% stated that they were a farmer compared with 60.1% who did not. Even though all respondents would be considered consumers, farmers are more likely to take on a stakeholder role from a farmer's point of view. Non-farmers would, on the other hand, be more inclined to have pure consumerist stakeholder interest.

Further, the doughnut chart below shows that the respondents most often use news media (31.4%) as their source of animal welfare information. However, many do not have a main source of information (26.7%), while a few use the corporate website as a source of animal welfare information (11.3%). The least used source of FAW information is advertising (2.5%), friends /family (3.1%), and product labeling (3.5%).

Table 4: *Demographics of Respondents*

	N	Mean	Std. Dev.	Min.	Max.
Carnivore	318	1.04	.191	1	2
Gender	306	1.38	.493	1	2
Age	306	44.23	14.009	22	77
Generation	306	2.6569	.94950	1	4
Farmer	306	1.60	.490	1	2
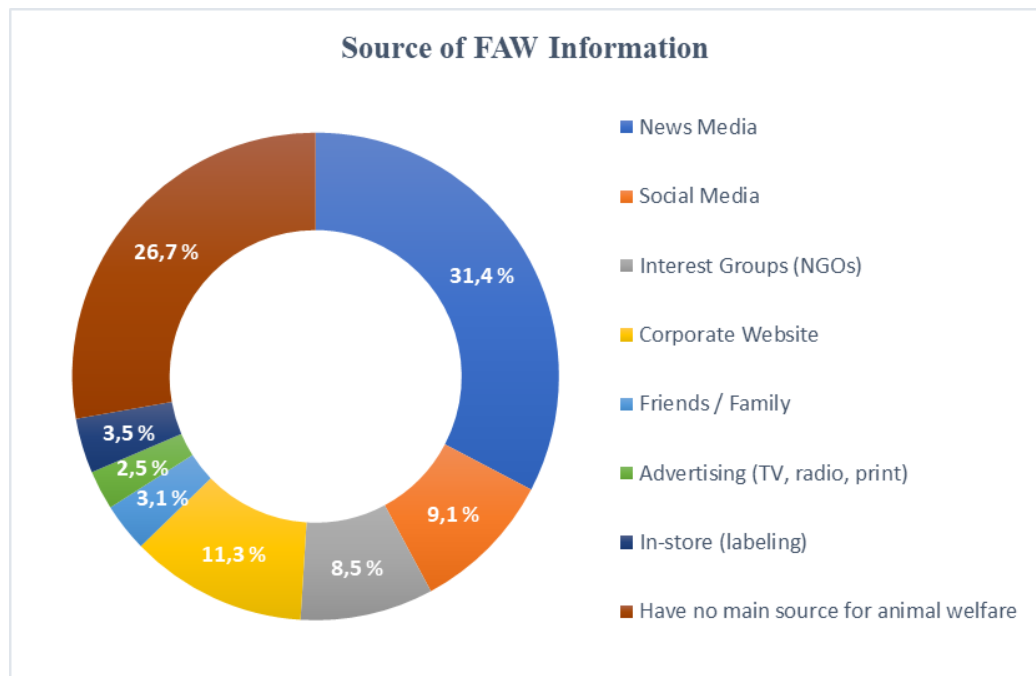
Figure 3: *Stakeholders' main source of FAW information*

5.2 Descriptive Statistics

Table 5 presents summary statistics of the variables in the study. We can see that the total (collective) average perceived transparency is 2.2157, with a standard deviation of 0.71. The range is 1-3, as this illustrates negative, neutral, and positive perceptions. Further, the descriptive statistics give more insight into the distribution of perception across various degrees of disclosure. Respondents were least negative about corporate communication with high disclosure of FAW practices (score of 8). Despite that, the most positive perception was recorded through medium disclosure of FAW practices (score of 49), although not by much more than the higher disclosure. Interestingly, even though lower disclosure gives less positive perceptions and more negative perceptions than the other degrees of disclosure, it scores the highest on neutrality (score of 51). This score might be due to people lacking a clear standpoint on the issue, but it could also have to do with a lack of information to process, as low disclosure often is vague and less damaging for a corporation.

The results indicate that higher disclosure does not necessarily deliver more positive perceptions of a corporation's transparency effort than the medium degree of disclosure. However, high disclosure does deliver fewer negative perceptions. Low disclosure indicates that people might be more indifferent toward what has been communicated due to a lack of information being disclosed. The results might also imply that the high amount of neutral perceptions across all degrees of

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disclosure could relate to transparency being a subjective and complex concept; hence respondents would give a neutral answer.

Table 5: *Descriptive statistics*

Perceived Transparency Effort					
	N	Mean	Std. Dev.	Min.	Max.
Perceived Transparency (Total Avg.)	306	2.2157	.71464	1	3
Perceived Transparency (High Disclosure)	100	2.400	.6356	1	3
Perceived Transparency (Low Disclosure)	99	1.9394	.69720	1	3
Perceived Transparency (Medium Disclosure)	107	2.2991	.72963	1	3

Degree of FAW Disclosure					
		Low Disclosure	Medium Disclosure	High Disclosure	Total
Perceived Transparency Effort	*Negative*	27	17	8	52
	Neutral	51	41	44	136
	Positive	21	49	48	118
Total		99	107	100	

5.3 Univariate Analysis

Because IV and DV are categorical variables, we conducted a Chi-square test to ensure that there is, in fact, a relationship (see table 6). The results show a statistically significant relationship between the two categorical variables (df = 24.503, p < .001), providing our initial evidence for our first hypotheses of this study.

Table 6: *Chi-Square Test (IV + DV)*

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	24.503[a]	4	<0.001
Likelihood Ratio	25.975	4	<0.001
Linear-by-Linear Association	20.626	1	<0.001
N of Valid Cases	306		

5.4 Analysis of Hypotheses

5.4.1 Hypothesis 1

H1: *Respondents exposed to high FAW disclosure will have more positive perceptions of a corporation's transparency effort than respondents exposed to low FAW disclosure.*

We proposed in our hypothesis that there is a relationship between the independent variable 'degree of FAW disclosure' and the dependent variable 'perceived transparency effort.' Moreover, the perception would be more positive for high FAW disclosure than for low FAW disclosure.

We examined our first hypothesis by conducting a one-sample t-test. The one-sample t-test measures whether the sample mean significantly differs from a hypothesized value (UCLA: Statistical Consulting Group., n.d.). The hypothesized value will be the test value we use, which in our case is the mean perception of all respondents (mean = 4.2053). Both *Avg. Perceived Transparency (High Disclosure)* and *Avg. Perceived Transparency (Low Disclosure)* was statistically significant (t = 3.068, p =.001; t = -4.483, p <.001).

From table 7, we can see the t-value for *Avg. Perceived Transparency (High Disclosure)* indicated that high FAW disclosure in corporate communication positively affected the corporation's perceived transparency effort. On the other hand, we see a negative effect for *Avg. Perceived Transparency (Low Disclosure)* as the t-value is negative. The mean difference is positive for high disclosure and negative for low disclosure of FAW. We can elaborate more on the effect size of the mean difference by interpreting Cohen's D. As highlighted in the effect size table in appendix G, we find that high FAW disclosure has a medium positive effect on respondents' perception of transparency effort (.307). Comparatively, low FAW disclosure has a significant negative effect on perceived transparency effort (-.451).

Therefore, we accept hypothesis 1 that high FAW disclosure does produce more positive perceptions of transparency than low FAW disclosure. We further investigate whether the varying degrees of FAW disclosure affects information asymmetry between the stakeholders, farmers and non-farmers.

Table 7: *One-Sample t-test*

One-Sample Statistic	N	Mean	Std.Dev.	Std. Error Mean
Total Avg. Perceived Transparency	306	4.2053	0.80822	0.04620
Avg. Perceived Transparency (High Disclosure)	100	4.4400	0.76512	0.07651
Avg. Perceived Transparency (Low Disclosure)	99	3.8833	0.71475	0.07183

One-Sample Test
Test Value = 4.2053

	t	df	Significance One-sided p	Significance Two-sided p	Mean Diff.	95% confidence interval of the difference Lower	95% confidence interval of the difference Upper
Total Avg. Perceived Transparency	0.001	305	.500	.999	0.00004	-0.0909	0.0910
Avg. Perceived Transparency (High Disclosure)	3.068	99	.001	.003	0.23470	0.0829	0.3865
Avg. Perceived Transparency (Low Disclosure)	-4.483	98	<.001	.001	-0.32202	-0.4646	-0.1795

5.4.2 Hypothesis 2

H2: *Respondents exposed to high FAW disclosure will have more similar perceptions between groups than respondents exposed to low FAW disclosure.*

In hypothesis 2, we predicted that respondents exposed to high FAW disclosure would be more aligned in their perceptions, meaning there would be fewer differences in responses than between respondents exposed to low FAW disclosure. To test this, we performed a one-way ANOVA as this is optimal when we have a categorical independent variable (*low-, medium-, high disclosure*) and dependent variable, which is a normally distributed interval (*Total Avg. Perceived Transparency*). The ANOVA will test the differences in the means of the respondents' perceptions but breaks it down by the degree of FAW disclosure.

Table 8 highlights that overall perception is significantly different between the degrees of FAW disclosure (F =13.623, p <.001). If examining the test of homogeneity of variances (see appendix I), we can see that the variances within each degree of disclosure are not statistically different from each other. However, the statistically significant difference shown in the ANOVA cannot assure us where the difference is. The one-way ANOVA tells us that there is at least one mean comparison between the groups that are statistically significant and that, at the minimum, the difference between the lowest (low disclosure) and the highest (high disclosure) mean is statistically significantly different from each other. In order to

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add confidence to these results, it can be essential to look at the robust tests of equality of means, where both Welch (p <.001) and Brown-Forsythe (p <.001) find a statistically significant effect.

Table 8: *One-way ANOVA - Total Avg. Perception (DV) vs. Degree of Disclosure (IV)*

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.437	2	8.219	13.623	<.001
Within Groups	182.793	303	.603		
Total	199.231	305			
Robust Tests of Equality of Means					
	Statistic[a]	df1	df2	Sig.	
Welch	15.069	2	201.879	<.001	
Brown-Forsythe	13.716	2	300.918	<.001	

a. Asymptotically F distributed.

Because we know there is a significant difference between the mean perception of low- and high FAW disclosure, we executed another ANOVA with each separate degree of disclosure (see table 9), where we broke it down into two groups (farmer: yes/no). The findings are that high FAW disclosure is not perceived significantly differently between farmers and non-farmers (p =.197), indicating that high FAW disclosure does not provide information asymmetry. However, low FAW disclosure is statistically significant (p =.039), suggesting that when disclosure in transparent corporate communication is low, respondents might rely more on their own knowledge and experience to fill in the gaps of information, in turn causing farmers and non-farmers to perceive a corporation's transparency effort differently from each other. Furthermore, both Welch and Brown-Forsythe find a statistically significant effect between farmers and non-farmers in low disclosure (p =.035) but not in high disclosure (p =.200). A cluster analysis also displays this difference between the respondents in each group, showing higher clustering for high FAW disclosure than for low FAW disclosure (see appendix I).

Thus, we accept hypothesis 2 as we found evidence of information asymmetry in low FAW disclosure and not high FAW disclosure.

Table 9: *One-way ANOVA - Avg. Perceived Transparency (high disclosure) vs. Avg. Perceived Transparency (low disclosure) between farmers and non-farmers.*

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Avg. Perceived Transparency (High Disclosure)	Between Groups	.979	1	.979	1.684	.197
	Within Groups	56.976	98	.581		
	Total	57.955	99			
Avg. Perceived. Transparency (Low Disclosure)	Between Groups	2.156	1	2.156	4.365	.039
	Within Groups	47.909	97	.494		
	Total	50.065	98			
Robust Tests of Equality of Means						
		Statistic[a]	df1	df2	Sig.	
Avg. Perceived Transparency (High Disclosure)	Welch	1.672	1	80.126	.200	
	Brown-Forsythe	1.672	1	80.126	.200	
Avg. Perceived. Transparency (Low Disclosure)	Welch	4.564	1	89.958	.035	
	Brown-Forsythe	4.564	1	89.958	.035	

a. Asymptotically F distributed.

5.4.3 Hypothesis 3a & 3b

H3a: *The level of industry knowledge moderates the relationship between the degree of FAW disclosure (IV) and perceived transparency effort (DV), such that the relationship is stronger when industry knowledge is higher.*

By running a moderator analysis, we could test whether a respondent's industry knowledge of the meat industry acts as a moderator on the relationship between the degree of FAW disclosure and perceived transparency effort. The results were found after going through 6 steps.

The first step was to create a reference case through a linear regression using the *"Degree of FAW Disclosure"* (IV) and *"Total Avg. Perceived Transparency"* (DV). The results from this regression find that the degree of FAW disclosure significantly impacts perceived transparency effort (see table 10). This finding is an interesting idea and makes us consider whether there could be a third variable that impacts this relationship, giving life to our third hypothesis about industry knowledge as a moderator.

Table 10: *Linear Regression - Reference Case (IV → DV)*

ANOVA[a]					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	15.395	1	15.395	25.459	<.001[b]
Residual	183.835	304	.605		
Total	199.231	305			
Coefficients[a]					
	Unstandardized B	Coefficients Std.Error	Standardized Coefficients Beta	t	Sig.
(Constant)	3.648	.119		30.645	<.001
Degree of Disclosure	.278	.055	.278	5.046	<.001

a. Dependent Variable: TOTAL_Avg.Perception
b. Predictors: (Constant), Degree of Disclosure

In the second step, we introduce *"Knowledge Level"* into our model as a second independent variable so we could look for a moderating effect. By doing so, we also add collinearity diagnostics to our results. From table 11, we see that both independent variables significantly impact the dependent variable, meaning that both degrees of disclosure and industry knowledge level affects perceived transparency effort on their own. Looking at the VIF (Variance Inflation Factors), both IVs are under the critical factor of 10 (VIF=1.006).

The third step is to perform a Chi-square test that could offer a different perspective on whether *knowledge level* and *degree of FAW disclosure* are, in fact, related (see appendix I, step 3). Although very close (p =.051), the test came back insignificant. Therefore, we can state that there is no relationship between a respondent's level of industry knowledge and the degree of FAW disclosure a corporation communicates. However, running the same test between *knowledge level* and *perceived transparency effort* finds a very significant relationship (p =.004). These results can be logical, as a respondent's industry knowledge does not determine the degree of FAW disclosure communicated from a corporation, however, a respondent's industry knowledge can determine how they perceive the corporation's transparency efforts.

Table 11: *Linear Regression - Introducing Knowledge Level to the Regression Model*

ANOVAᵃ					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	20.184	2	10.092	17.079	<.001ᵇ
Residual	179.047	303	.591		
Total	199.231	305			

Coefficientsᵃ							
	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	β	Std.Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	3.229	.189		17.120	<.001		
Degree of Disclosure	.267	.055	.266	4.880	<.001	.995	1.006
Knowledge Level	.182	.064	.155	2.847	.005	.995	1.006

    a. Dependent Variable: Total Avg. Perceived Transparency
    b. Predictors: (Constant), Degree of Disclosure, Knowledge Level

In the fourth step, we introduce the interaction effect to our regression model. We multiply industry knowledge *(Knowledge Level)* with the *Degree of FAW Disclosure* in SPSS' compute function and call the new variable *"Interaction 1"*. The regression model is then expanded by adding this interaction term. From table 12, we see that the two independent variables still have a significant impact by themselves, but the interaction effect has not (β = -.119). If the interaction effect is significant, it would mean that it interferes with the relationship with our dependent variable, perceived transparency effort. However, this is not the case.

Table 12: *Linear Regression - Including Interaction Term*

ANOVAᵃ					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.408	3	7.136	12.119	<.001ᵇ
Residual	177.823	302	.589		
Total	199.231	305			

Coefficientsᵃ							
	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	β	Std.Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	2.647	.445		5.945	<.001		
Degree of Disclosure	.556	.208	.556	2.674	.008	.068	14.605
Knowledge Level	.424	.180	.362	2.363	.019	.126	7.932
Interaction 1 (Knowledge Level * Degree of Disclosure)	-.119	.083	-.376	-1.442	.150	.044	22.963

    a. Dependent Variable: TOTAL_Avg.Perception
    b. Predictors: (Constant), Degree of Disclosure, Knowledge Level, Interaction 1 (Knowledge Level * Degree of Disclosure)

An issue we must highlight is that by introducing the interaction effect to our model, multicollinearity significantly increased, which is always the case when doing so (Frost, 2021). To fix this, we created a new interaction term (Interaction 2) using standardized versions of the variables in the model.

The fifth step is to create the standardized variables, which we do in SPSS through 'descriptives' → selecting knowledge level and degree of disclosure as variables → and choosing the option 'save standardized values. ' This creates two new "Z Score-variables," in which we compute the new *Interaction 2* variable. As seen in Table 13, the results are precisely the same as before. However, this has given us the advantage of severely decreasing the multicollinearity problem.

Hence, we now can safely conclude that the moderator (industry knowledge) does not significantly impact the relation between the degree of a corporation's FAW disclosure and how respondents perceive the corporate efforts of being transparent ($p = .150$). Moreover, the moderator leads to a lower effect between the independent- and dependent variable ($\beta = -.066$). We therefore reject hypothesis 3a.

However, we confirmed a relationship between knowledge level and perceived transparency effort from the earlier executed Chi-squared tests, which is why we will continue by examining hypothesis 3b.

Table 13: *Linear Regression - Standardized Interaction Term*

ANOVA[a]					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	21.408	3	7.136	12.119	<.001[b]
Residual	177.823	302	.589		
Total	199.231	305			

Coefficients[a]							
	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	β	Std.Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	4.210	.044		95.693	<.001		
Zscore (Degree of Disclosure)	.215	.044	.266	4.882	<.001	.984	1.006
Zscore (Knowledge Level)	.128	.044	.158	2.897	.004	.993	1.007
Interaction 2 (Zscore Knowledge Level * Zscore Degree of Disclosure)	-.066	.046	-.078	-1.442	.150	.999	1.001

a. Dependent Variable: Total Avg. Perceived Transparency
b. Predictors: (Constant), Zscore (Degree of Disclosure), Zscore (Knowledge Level), Interaction 2 (Zscore Knowledge Level * Zscore Degree of Disclosure)

H3b: *Respondents with higher industry knowledge will have more positive perceptions of a corporation's transparency efforts than respondents with lower industry knowledge.*

Given that we have found a relationship between industry knowledge and perceived transparency effort, we further examined whether there is a difference in perception between varying levels of industry knowledge. To test this, we performed a one-way ANOVA with *Knowledge Level* as the categorical independent variable (*low-, medium-, high knowledge*) and *Total Avg. Perceived Transparency as the* dependent variable. The ANOVA will test the differences in the means of the respondents' perceptions but breaks it down by the respondents' knowledge level.

Table 14 shows that overall perception is significantly different between varying levels of knowledge (F =4.797, p <.009). However, the statistically significant difference shown in the ANOVA cannot assure us where the difference is. The one-way ANOVA tells us that at least one mean comparison between the groups that are statistically significant and that, at the minimum, the difference between the lowest (low knowledge) and the highest (high knowledge) mean is statistically significantly different from each other. Nonetheless, this is what we wanted to test. To add confidence to these results, both Welch (p <.011) and Brown-Forsythe (p <.010) find a statistically significant effect.

Therefore, we accept hypothesis 3b. Respondents with high industry knowledge perceive a corporation's transparency efforts as more positive than respondents with low industry knowledge.

Table 14: ANOVA - Higher Industry Knowledge Contributes to More Positive Perceptions of Corporate Transparency Efforts

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.115	2	3.057	4.797	.009
Within Groups	193.116	303	.637		
Total	199.231	305			
Robust Tests of Equality of Means					
	Statistic[a]	df1	df2	Sig.	
Welch	4.780	2	93.429	.011	
Brown-Forsythe	4.777	2	141.141	.010	

a. Asymptotically F distributed.

H4: *Farmers will perceive a corporation's transparency efforts more positively than non-farmers when FAW disclosure is low.*

The final hypothesis suggests that because of their extensive experience with farm practices and FAW, farmers would be more inclined to perceive lower degrees of FAW disclosure as positive than non-farmers with little to no experience regarding farm animals and -practices. We found in the second hypothesis that low FAW disclosure results in more unequal responses, meaning perceptions between farmers and non-farmers of corporate FAW communication are significantly different. However, we do not know whether the difference favors a more positive perception for farmers, or the opposite, that it is non-farmers who view low FAW disclosure as more positive.

An independent sample t-test was conducted to compare the means of the two groups (see appendix K), in this case, farmers and non-farmers, to give statistical evidence that the means between groups are significantly different (Gerald, 2018). The findings highlighted in table 15 indicated a significant difference between farmers' and non-farmers' perceptions of the corporation's transparency effort when disclosure was low (t =2.089, p =.039). Farmers have a higher positive mean compared to non-farmers (Farmer = 4.0625, Non-farmer = 3.7618). We further investigate the effect size of the mean difference by interpreting the Cohen's D value (See table 15). Low FAW disclosure has a large positive effect on the farmers' perception of transparency effort compared to non-farmers (d = .428).

Therefore, we accept hypothesis 4 as there is statistically significant evidence of farmers, compared to non-farmers, being more positive in their perception of a corporation's transparency effort when FAW disclosure is lower.

Table 15: *Independent Samples T-Test*

Group statistics					
	Farmer	N	Mean	Std. Dev.	Std. Error Mean
Avg. Perceived Transparency (Low Disclosure)	Yes	40	4.0625	0.65374	0.10337
	No	59	3.7618	0.73392	0.09555

Independent Samples Test										
	Levene's Test for Equality of Variances		t-test for Equality of Means							
					Significance				95% confidence interval of the difference	
	F	Sig.	t	df	One-sided p	Two-sided p	Mean diff.	Std. Error Mean	Lower	Upper
Avg. Perceived Transparency (Low Disclosure)	0.327	.569	2.089	97	.020	.039	0.30073	0.14394	0.01505	0.58641

Independent Samples Effect Sizes					
				95% confidence interval	
		Standardizerᵃ	Point Estimate	Lower	Upper
Avg. Perceived Transparency (Low Disclosure)	Cohen's d	0.70278	0.428	0.021	0.833
	Hedges Correction	0.70828	0.425	0.021	0.826
	Glass's delta	0.73392	0.410	0.000	0.816

a. The denominator used in estimating the effect sizes.
   Cohen's d uses the pooled standard deviation.
   Hedges' correction uses the pooled standard deviation, plus a correction factor.
   Glass's delta uses the sample standard deviation of the control group.

5.5 Complementary Analyses

In this subchapter, we have conducted some complementary analyses to our study that might be able to highlight the respondents' primary source of FAW information and choice of value-added product innovations. These analyses are not part of our thesis research framework but could potentially add additional insight into consumer preference and a basis for future research.

5.5.1 Respondents Source of Animal Welfare Information

The variable *Information_Source* contains 9 items; 'news media', 'social media', 'NGOs', 'brand webpage', 'personal blogs', 'word-of-mouth', 'commercials (TV, radio, and print)', 'product label', and 'no main source'. We conducted three ANOVA analyses to investigate the respondents' preferred source for collecting FAW information. The factoring groups were *Generation, Knowledge_Level*, and *Farmer* (see appendix L for all outputs).

In ANOVA #1, SoMe (<.001), Brand Webpage (.025), Product label (.037), and No main source (.030) are the only significant different means between generations. The younger the generation, the more they seek to SoMe and product labels for FAW information, while older generations use the brand products' webpage or simply have no main source of FAW information.

In ANOVA #2, if looking at respondents' main source of FAW information compared to their industry knowledge level, we find significant differences between groups in news media (<.001), SoMe (.045), NGOs (.035), and brand webpage (<.001). Respondents with high industry knowledge are the ones who rely the least

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on news media, followed by low and medium knowledge levels (the latter scoring significantly higher). However, those with high knowledge search more on the brand's webpage for FAW information. Respondents with low knowledge level seem to rely more on SoMe and NGOs.

In ANOVA #3, when comparing respondents' main source of FAW information between farmers and non-farmers, we find significant differences in news media (<.001), SoMe (.009), brand webpage (<.001), product label (.006), and no main source (.008). Compared to non-farmers, it seems like farmers prefer NGOs, the brand's webpage, or not having a main source of FAW. On the other hand, the non-farmers seem to have more interest in news media, SoMe, and product labels when gathering information about FAW.

Lastly, we conducted a multinomial logistic regression as the values on the nominal dependent variable (*information source*) represent more than two unordered categories. As factors, we added *Farmer* (1=Yes, 2=No) and *Generation* (Gen Z, Millennials, Gen X, and Baby Boomer). The model fitting information compares the full model (with predictors) against a null/intercept model (without predictors). It indicates a significant value, highlighting that the final model is a significant improvement in fit over the null model ($x^2(28)=142.612$, p <.001). The goodness-of-fit results were non-significant for both Pearson (.805) and Deviance (.810). For goodness-of-fit, a non-significant result indicates a good model fit.

Further, looking at the likelihood ratio tests, which measure the overall contribution of each independent variable, we find that both farmer (<.001) and generation (.033) were significant predictors in the model. Finally, the parameter estimates provide information comparing each preferred FAW information source against the reference category (*No Main Source*). The first set of coefficients represents comparisons between respondents stating news media is their main source of FAW information and those stating they have no main source of FAW information. Only farmers were a significant predictor (b=-1.698, S.E.=.396, p<.001) in the model, as respondents who are farmers were less likely to choose social media as their main source of FAW information. The odds ratio of .183 indicates that for every one-unit increase on the variable 'farmer', the odds of a respondent having social media as their main source of FAW information changed by a factor of .183. In other words, the odds were decreasing. We see better odds for farmers in the fourth set (brand webpage), where farmers are also a significant predictor (b=3.692, S.E.=1.069 p<.001). Farmers are more likely to choose a brand

webpage as their main source, with an odds ratio of 40.122 indicating increasing odds of using the brand web page as the main source of FAW information. In the second set of coefficients (social media), Generation Z (Gen=1) is a significant predictor (b=2.665, S.E.=1.044 p<.011) and has an odds ratio of 14.368. This indicates that respondents who are part of Gen Z are more likely to use social media as their primary source of FAW information. For every one-unit increase in the variable 'Generation,' the odds would increase by a factor of 14.368. NGOs, word-of-mouth, commercials (TV, radio, and print), and product labels were not statistically significant predictors in the model.

5.5.2 Value-Added Product Communication (Animal Welfare)

Two choice questions were added to the survey to shed some light on the respondent's preferences for value-added product innovations, explicitly relating to animal welfare and sustainability (see appendix B).

In the first question about animal welfare, respondents were asked to choose one of the added benefits to a package of sliced ham. Each innovation would add a little to the product's price (2-4 kr), with the exception of those who prefer normal ham to today's price. Of the 6 choices presented (see table 16), what respondents preferred the most out of the value-added innovations were labeling the product as "100% Norwegian meat" (30.7%) and using a "neutral animal welfare label" (24.1%). Otherwise, respondents preferred to buy a normal sliced ham at today's price point (17.7%).

Table 16: *Frequency Table - Preferred Information on Meat Product (Animal Welfare)*

Information on Packaging (Animal Welfare)		
	Frequency	Percent
Labeled as "100% Norwegian Meat"	94	30.7%
Online / QR-Code Tracker of the Meat's Origin	37	12%
Normal Sliced Ham to Today's Price	54	17.7%
Using a Neutral Animal Welfare Label	74	24.1%
Using a 'Smileyface Scale' Developed by The Norwegian Food Authorities	32	10.5%
Inform About Pigs Being Given More Space in Enclosures Compared to Norwegian Standard	15	4.9%
Total	306	100%

A multinomial logistic regression was performed, with *"Q7_Extra 1"* as the DV, *"Farmer"* as the factor, and *"Age"* as the covariate. The model fitting information indicates a significant value, highlighting that the final model is a

significant improvement in fit over the null model (x^2(10)=98.977, p <.001). Moreover, the goodness-of-fit results were not significant for both Pearson (.281) and Deviance (.935), indicating a good model fit. Further, looking at the likelihood ratio tests, which measure the overall contribution of each independent variable, we find significance for *"Farmer"* (<.001) as a predictor in the model, but not for *"Age"* (.155). Finally, the parameter estimates provide information for comparing each choice of packaging information against the reference category (*Labeled as 100% Norwegian Meat*). From the start, we can see that *"Farmer=1"* is the only significant predictor in all 6 choice sets. The first set of coefficients represents comparisons between respondents stating they would prefer and pay more for QR-code tracking and those stating they prefer and would pay more for a product if it was labeled as 100% Norwegian (b=-3.108, S.E.=.562, p<.001). Thus, farmers are less likely to prefer and pay more for QR-code tracking than the reference category. The odds ratio of .045 indicates that for every one-unit increase on the variable 'farmer,' the odds of a respondent preferring a QR-code tracker changed by a factor of .045. Similar results were seen for all other choices, although negative, with varying coefficients. A summary of the remaining 4 choice results can be found in table 17 below:

Table 17: *Parameter Estimates, Farmer=1/Yes (Reference: 100% Norwegian Meat)*

Summary of Significant Parameter Estimates (Animal Welfare)[a]				
	β	Std. Error	Sig.	Exp(β)
QR-Code Tracker	-3.108	.562	<.001	.045
Neutral Animal Welfare Label	-3.229	.484	<.001	.040
Normal Sliced Ham at Today's Price Point	-2.062	.478	<.001	.127
'Smiley Face'-scale From the Norwegian Food Authority	-2.073	.565	<.001	.126
More Space for Pigs in Enclosure (Compared to Norwegian Standards)	-2.252	.770	.003	.105

a. The reference category is: "100% Norwegian Meat"

5.5.3 Value-Added Product Communication (Sustainability)

In the second question concerning sustainability information on the product packaging, respondents were again asked to choose their preferred choice with the same conditions that each innovation would add a little to the product's price (2-4 kr), with the exception of normal ham to today's price. Of the 6 choices presented (see table 18), what respondents preferred the most out of the value-added innovations were labeling the product as *"100% Norwegian meat"* (29.7%), that the product has *"reduced emissions by 30%"* (20.3%) and using a *"neutral animal*

welfare label" (18%). Otherwise, respondents preferred to buy normal sliced ham at today's price point (16%).

Table 18: *Frequency Table - Preferred Information on Meat Product (Sustainability)*

Information on Packaging (Sustainability)		
	Frequency	Percent
Stating "30% Reduced Climate Emissions"	62	20.3%
Normal Sliced Ham to Today's Price	49	16%
Using a Neutral Animal Welfare Label	55	18%
Stating "Farmers Get Paid 15% More"	33	10.8%
Stating "the Animals Get 100% Norwegian Feed"	16	5.2%
Labeled as "100% Norwegian Meat"	91	29.7%
Total	306	100%

We performed a similar multinomial logistic regression, although this time with *"Q8_Extra 2"* as the DV. *"Farmer"* was still the factor, and *"Age"* was the covariate. The model fitting information indicates a significant value, highlighting that the final model is a significant improvement in fit over the null model (x^2(10)=147.562, p <.001). Moreover, the goodness-of-fit results were significant for Pearson (.001) but not significant for Deviance (.986), indicating disagreeing results as Deviance suggests good fit and Pearson suggests poor fit. Looking at the likelihood ratio tests, which measure the overall contribution of each independent variable, we find significance for *"Farmer"* (<.001) as a predictor in the model, but not for *"Age"* (.335). Finally, the parameter estimates provide information comparing each choice of packaging information against the reference category (*Labeled as 100% Norwegian Meat*). Only two coefficient sets have a significant predictor, which in both cases are linked to *"Farmer=1"*. The first one is observable in the comparison between respondents preferring normal sliced ham at today's price and those who prefer a product labeled as 100% Norwegian (b=-1.369, S.E.=.470, p=.004). Therefore, farmers are less likely to prefer normal sliced ham at today's price compared to having the product labeled as "100% Norwegian" and paying 2-4 kr more. The odds ratio is .254, indicating that for every one-unit increase on the variable 'farmer', the odds of a respondent preferring normal sliced ham changed by a factor of .254. In the second coefficient set where a significant value was observed, we compare neutral animal welfare labeling to being labeled as 100% Norwegian (b=-2.136, S.E.=.495, p<.001). Also, here, farmers are less likely to choose neutral animal welfare labeling than the 100% Norwegian labeling. Odds are also decreasing at a factor of .118.

6.0 Discussion

In the following chapter, a comprehensive discussion of the research framework will be given to understand and make sense of the results.

6.1 Degree of FAW Disclosure

A lack of transparent communication can incentivize consumers to obtain private information to fill any perceived informational gaps. In turn, this could increase information asymmetries between groups of consumers as there can be a difference in what they rely on when decoding information (Diamond & Verrechia, 1991; Lambert et al., 2007). Given the different backgrounds of farmers and non-farmers, it is likely that these two consumer groups would experience such an effect if there were a lack of information being disclosed. Farmers would have it easier to interpret and perceive such vague transparent communication in the way the corporation intended as they can refer to their own knowledge and experience with FAW. In contrast, non-farmers are more likely to rely on private information from social media, news, and NGOs to add information when they perceive a lack of information being disclosed. However, such sources of information are not always credible, reliable, or favorable. We know from previous studies that there is less information asymmetry between groups when information disclosure is higher (Grossman & Hart, 1980; Milgrom, 1981; Verrechia, 1983). Hence, we argued that corporate communicators must disclose more to meet the consumers' expectations for information. From our pre-study interviews, we found that farmers and industry experts believed non-farmer consumers had distanced themselves from agricultural practices, so much so that they would not know what information was factual or 'disneyfied' (fairytale-like). Moreover, we know from past research that transparent communication could improve corporate reputation (Rim et al., 2019).

We hypothesized that higher FAW disclosure would lead to more similar perceptions and generate more positive perceptions of a corporation's transparency efforts between two consumer groups (farmers and non-farmers), thus reducing the risk of information asymmetry and media criticism. Nonetheless, according to Verbeke (2009), it is wrong to expect that improved or more information could assist in solving information asymmetry. However, we found that such a relationship is significant. A clue to this can be that increased information satisfies a consumer's expectation of information, in addition to giving the consumers substantial information to evaluate whether the corporation is accountable and

encourages consumer participation. Nevertheless, since we can only state that there was a significant difference between the highest and lowest FAW disclosure, and not, for instance, between medium and high/low, we must consider that medium disclosure nearly gave the same results as high FAW disclosure. A reason for this might be that even though a corporation can reduce the risk of information asymmetry by disclosing more information, too much disclosure can open the corporation up to criticism as it can be perceived as greenwashing or open washing. Overstating a corporation's objectives and not living up to said objectives can backfire. Too much information could also allow for a more comprehensive array of interpretations of the message, favoring medium disclosure as a sweet spot for FAW disclosure. This fact adheres to Verbeke's (2009) earlier argument that more information does not necessarily solve information asymmetry; it can, in fact, also increase it.

Interestingly, although low FAW disclosure increases negative perception compared to the other degrees of FAW disclosure, low FAW disclosure had the most neutral consumers. This discovery can be due to the fact that people lack a stance on the issue or that less information becomes vague, giving consumers fewer reasons to perceive something as negative or positive. This indifference seems to be why there is a strong case of neutrality when FAW disclosure is low.

Results from the second and fourth hypotheses confirm information asymmetry between farmers and non-farmers, indicating that the degree of FAW disclosure impacts perceived transparency between groups with different backgrounds. This finding is in line with Vanhonacker et al. research (2007) that citizens, or non-farmers in this case, evaluate lower degrees of FAW disclosure as more negative than farmers. On the other hand, farmers perceive corporations' transparency efforts more positively when disclosure is low because they can fill in the informational gaps with private information gained from their hands-on experience with livestock. Per contra, when disclosure is high, non-farmer consumers are more positive than farmers, likely because the degree of information disclosed meets their needs and expectations concerning FAW efforts.

6.2 Industry Knowledge
Although the analysis appeals to high FAW disclosure for an agricultural corporation's transparent communication, one should bear in mind that other variables can impact perceived transparency together with the focus of the message

itself. Previous literature states that information is necessary for knowledge and insight, but knowledge and insight are also necessary to decode information. Therefore, elevated access to information might have a counterintuitive effect, contributing to distrust and increased alienation, depending on the audience's preconditioned knowledge about what is being communicated (Bateson, 1972; Christensen, 2002). Therefore, we hypothesized that industry knowledge would act as a moderating variable on the relationship between the degree of FAW disclosure and the consumer's perception of corporate transparency efforts. The hypothesis hypothesized that it would have such an effect that the relationship would be stronger when industry knowledge was higher. After conducting our analyses, we found no support indicating that industry knowledge significantly impacted this relationship.

Despite hypothesis 3a being insignificant, it did not negate our analysis of hypothesis 3b, which was significant. We did find support that industry knowledge still directly influences how consumers perceive corporate transparency efforts. A reason might be that those with lower knowledge must rely on private information that is not credible, reliable, or favorable for a corporation, without the consumer necessarily being aware of potential flaws information from these channels poses. Nevertheless, this influences their perception enough so that their underlying expectation of how transparent a corporation should be does not match the reality. The discovery infers that while agricultural corporations do not have to consider industry knowledge as a moderating variable when communicating to consumers, corporations should still evaluate if the information disclosed requires high knowledge to understand or decode. This deduction confirms the findings from the focus groups of Evans & Miele (2008) that consumers' lack of experience and knowledge of farm practices is one of the factors shaping their views on FAW.

Another aspect to factor into this equation is information sources. Previous research in the U.S. found that consumers depend more on news media than anything else. Furthermore, these consumers usually had little experience with livestock (McKendree et al., 2014). We found similar results in our study. News media is the most frequent main source of FAW information, and consumers with high industry knowledge rely the least on news media. It is likely because they are at the forefront of what is happening in the sphere of FAW.

Additionally, high knowledge is linked to using the corporate webpage as a source of FAW information, indicating that they might be consumers of older age.

In contrast, consumers with low knowledge levels seem to rely on social media and NGOs significantly more, tying them to younger generations of consumers. If we split consumers into farmers and non-farmers, it seems farmers prefer NGOs, the corporate webpage, or not having a main source of FAW. Besides NGOs, this matches the results linked to high industry knowledge and the older generation, where we place most farmers. However, NGOs are often involved in the meat industry, and farmers are likely to have interacted with NGOs through real-life encounters or communication. Our results for non-farmer consumers are similar to what we have found for low industry knowledge level and the younger generations. Although not explicitly investigated in this study, age and knowledge level seems to be closely related, which might be due to consumers' amount of life experience, as discussed by Vanhonacker & Verbeke (2014). Overall, non-farmers in this study fall into the categories of low knowledge and being young. They are less involved with farm practices and tend to rely on news media, social media, and product labels to fill in potential information gaps.

This study finds that industry knowledge has no moderating effect on certain degrees of FAW disclosure. Nevertheless, the level of industry knowledge a consumer has does serve as a bedrock for how well they can decode the disclosed information. In the end, this highlights that agricultural corporations might want to educate the public on FAW to further minimize information asymmetry and bring consumers closer to animal-based food production. Spooner et al. (2014) meant that increased visibility and exposure to farm practices could help educate consumers and reduce alienation from the animal itself. In terms of transparent communication, this could be one way to approach it when disclosing higher levels of information.

6.3 Consumer Perceived Transparency Effort

Although previous literature has found that consumers increasingly demand information regarding animal welfare (Chilton et al., 2006; Clark et al., 2017; Lagerkvist & Hess, 2011), the source from which the information is obtained is equally as crucial for the outcome of the perception. Gen Z and Millennial consumers seek social media and product labels for FAW information, as this is an easy way for them to solve their need for substantial information. However, the information is not necessarily reliable (Kupsala et al., 2015). On the other hand, Baby Boomers and Gen X look for FAW information more frequently on corporate websites but are also more likely to have no source of FAW information at all. The

latter might be because older generations have had more time to gain experience with animals and the meat industry, as discussed earlier.

Considering the potential risks of ensuring positive perceptions from high FAW disclosure, it could negatively affect other corporate areas. Too much information could lead to negative perceptions of the corporation's transparency efforts unless the corporation's performance matches what is being communicated. Otherwise, the negative perception could diminish corporate reputation or, even worse, corrode customer loyalty. However, this study still finds that low FAW disclosure has a worse effect on perceived transparency compared to medium and high FAW disclosure.

Our discussion highlights that more research should be conducted within the sphere of perceived transparency, as it is a complex concept that consumers find comprehend differently. This study has aimed at shining light on corporate transparency in the meat industry and how far corporate communicators in this industry should stretch their efforts of being transparent to gain positive outcomes. However, more predictors of perceived transparency efforts should be investigated in the future. We cannot confidently conclude that high FAW disclosure is the ideal route for transparent corporate communication. We can infer that high FAW disclosure is better than low at delivering positive perceptions of transparency. This conclusion proves that agricultural corporations that do not meet the transparency expectations of FAW to a certain degree will most likely also not influence consumers' perceived transparency positively. This study also found evidence of information asymmetry between farmer and non-farmer consumers on perceived transparency efforts. Ultimately, this must be studied further to better understand all possible factors that can minimize the informational asymmetry.

7.0 Implications

This study highlights findings that can offer managerial- and theoretical implications in the sphere of transparent corporate communication. Corporate communicators must keep in mind that this study can only be considered as fundamental insights that support an underserved concept like transparent communication of FAW. Hence, this study is a corporate guidance for the meat industry on how to find the right balance of transparency in corporate communication in order to mitigate potential backlash, whilst still reducing the information asymmetry gap.

7.1 Managerial Implications

From a managerial perspective, the results could increase a manager's understanding of transparency as a communicative asset and how to form corporate communication strategies that cater to the informational needs, expectations and perceptions of the consumer. According to Vanhonacker et al. (2008), farmers and non-farmers have different views and needs of FAW disclosure, something our research highlights that also holds true fifteen years later. Further, this study also makes a leap in terms of transparent corporate communication for the meat industry on the CSR topic - farm animal welfare. We found that a high degree of disclosure delivers the most positive consumer perceptions, although too much information might make consumers interpret the information as open washing. Medium degree of disclosure might therefore be equally as good depending on the sensitivity of the information being shared. Farmers could also have relatively more positive perceptions at low disclosure than non-farmers, whilst the opposite is true at high disclosure. This is an indicator for communicators that industry knowledge does play a role in painting the whole picture when information is scarce, but that increased transparent communication reduces information asymmetry.

However, our findings on industry knowledge not influencing the relationship between disclosed information and perception adds to the discussion communicators might have around content that is easily understandable. Yet again, we did find a significant relationship between industry knowledge and perceived transparency. Therefore, communicators must still evaluate how they can educate consumers with less knowledge about FAW in order to increase the effectiveness of the communication going into the future. Adding to previous literature, our research finds that corporate communicators in the meat industry should consider news media, social media and product labels as their channels of priority when disclosing FAW information. Nonetheless, corporate websites should always be seen as a "must" as it is easier to link to corporate ambitions and CSR objectives.

Adding to previous research, Rim et al.(2016) postulated that future research should have investigated transparency in a holistic manner, referring to a company's attempt to deliver information. Our research investigates this by gathering research based on criterias within each trait of transparency signaling, following the Rawlins (2008a) model for transparency effort. By utilizing these traits we have further theorized and given a framework based on Rawlins (2008a) which can be used for further research, not only into the effects of transparency

within FAW, but also within agricultural CSR reporting. The research also builds on Verbeke's conclusion on the marketability of improved animal welfare (2009). His conclusion reason that the targeting of FAW information is the key to activating citizens' dormant attitudes, which is where our research lays a foundation for the process of collecting information on how to transparently communicate to non-farmers and farmers.

7.2 Theoretical Implications

From a theoretical standpoint, the findings of this study can contribute to the academic understanding of transparent corporate communication, showcasing that transparency can be defined differently depending on the degree of FAW disclosure. Not only does it highlight the difference in effect of various degrees of FAW disclosure, but also that it influences how a consumer perceives transparency effort. This study adds a new aspect to the sphere of transparent corporate communication because of the categorization of information disclosure (low, medium and high) and incorporation of industry knowledge (low, medium and high) as an influencing variable. Experimental research of transparent corporate communication within the meat industry is fairly limited, especially within the topic of FAW. A likely explanation is that other sustainability issues (i.e. food contamination, environmental pollution and deforestation) have caught more attention as they are often easier for the public to observe and experience. Perceived transparency effort depends highly on whether the consumer has gained information somewhere else (i.e. news media uncovering something, NGOs giving criticism) which contradicts the level of information given by a corporation. This study can serve as a starting point for mapping out predicting variables of consumer perceived transparency effort, which can provide a greater understanding of consumers' agricultural values as they become increasingly urban and detached from the reality of animal welfare.

8.0 Limitations & Future Research

8.1 Limitations

This study has some limitations concerning our sampling strategy, which might be a cause of biases that can affect the survey results. Although our attempt to collect representative data, most of our respondents were collected through a convenience sampling method (Facebook and LinkedIn). The survey was also distributed to all

Norwegian farmers from our industry partner company, Nortura. However, this non-probability method has some disadvantages, including low external validity, non-generalizable data, and sampling bias (Fleetwood, 2021). Accordingly, the results might be unrepresentative of the general population and biased towards subjective individuals willing to partake in the survey, affecting the credibility of this study (Fleetwood, 2021). Although convenience sampling has its limitations, it is still valuable for initial research and lays the groundwork for future research within the meat industry. Furthermore, the FAW disclosure in our survey-based experiment was based on a textual content format, limiting the research to make predictions about other types of channels to disclose FAW information on. Thus, this might have led to an incomplete picture regarding the perceived transparency of FAW disclosure.

8.2 Future Research

FAW has developed into a prominent public issue and will continue to grow as awareness of sustainability in the meat industry is impacting public perception of the meat industry. Hence, there is an underlying need to understand what is involved when a corporation communicates transparently and what it involves. In particular, elevated research on transparent communications' ability to influence perception and how that, in turn, impacts consumer purchase decisions. Future research could build on our fundamental findings to address more explicit predictors of perceived transparency effort, like emotional experience (Boogard et al., 2006), expectations, and social identity.

Our conceptual model could also be expanded to include a more in-depth examination of information asymmetry in future research. The study of transparent corporate communication does not have to be restricted to the meat industry or textual web content. Previous research on transparent communication has shown positive results for the financial industry, and we firmly believe this could be replicated for all industries. However, disclosure of the information is different for each industry, and execution of this must therefore be investigated. Moreover, it would be intriguing to look into how an increase in visual imagery would complement textual content. Additionally, disclosure of FAW on social media content, in the news, and on product labels would be interesting to investigate further.

Even though the literature on perceptions of transparent corporate communication in relation to FAW disclosure is scarce, it is clear that corporate transparency and corporate communication are disconnected to a level where consumers expect more information. Therefore, it was unsurprising that high FAW disclosure causes more positive perceptions of the corporation's transparency effort. However, medium FAW disclosure is not far from delivering the same results; something future studies should investigate to see what possible factors are suppressing the perceived effort of corporate transparency (i.e., greenwashing and open washing). Moreover, this study can be replicated with a non-convenience sample as this study used a convenience sample. This could increase external validity. Another recommendation would be to incorporate more concrete examples through real business cases, as our research experiment was based on an anonymous corporation in the meat industry. Perceived transparency might therefore be affected by preconceived perceptions within consumers. Lastly, we did not further discuss or thoroughly examine the results from the complementary analyses, which future studies can lay more emphasis on in terms of communicating specific value-added innovations on meat products and their benefit for animal welfare and sustainability.

9.0 Conclusions

In our preliminary review of previous literature concerning corporate communication and transparency, it became clear that available literature often was more than 10 years old or based on quantitative approaches. Research concerning FAW transparency in the meat industry was also very scarce or old, which is peculiar considering the meat industry is heavily involved with livestock. The scarce empirical research on transparent communication regarding FAW highlights a need to understand consumers' perceptions of FAW transparency, especially considering the meat industry has been battling with public criticism in the last decade.

The objective of this study was to offer guidance for corporate communicators on how to proactively communicate transparently with consumers. Specifically, the study focused on what effect varying degrees of FAW disclosure would have on how consumers perceive the corporate transparency effort. As our pre-study in-depth interviews uncovered that the meaning of transparency can be widely interpreted and understood, we had to set a boundary for what it meant for

the agricultural industry. Rawlins (2008a) proposed a model concerning transparency effort that sufficiently covered most of the pre-study participants' interpretation of transparency. Hence, accountability, participation and substantial information was introduced in the context of corporate disclosure of FAW and to what degree respondents perceived the transparent communication as accountable, participative and substantial. From available literature and the transparency effort model, we hypothesized that higher FAW disclosure would deliver more positive perceptions of a corporation's transparency effort and that perceptions would also be more similar between farmers and non-farmers. Furthermore, we argued that higher industry knowledge would strengthen the relationship between FAW disclosure and consumer perceived transparency effort, as well as speculating that consumers with higher industry knowledge would perceive the corporation's transparency efforts more positively. Lastly, building on the difference in assumed difference in industry knowledge between farmers and non-farmers, we hypothesized that farmers would perceive corporate transparency efforts more positively than non-farmers when FAW disclosure is low.

- A high degree of FAW disclosure directly influences how a consumer perceives the corporation's transparency effort, in turn increasing consumers' positive perceptions of the corporation in this aspect. The results show stronger positivity for non-farmers than for farmers, although both are positive.

- A medium degree of FAW disclosure performs almost as well as high disclosure. However, negativity scores are higher, indicating a spread in perception of the corporation's transparency efforts. Accordingly, medium disclosure delivers satisfyingly on perceived transparency, yet does not seem to minimize information asymmetry between farmer- and non-farmer consumers.

- Industry knowledge of the meat industry does not directly moderate the relationship between degree of FAW disclosure and perceived transparency effort. However, we find that a consumer's level of industry knowledge still plays a factor in farmers' and non-farmers' ability to perceive transparency effort as the corporation intended.

- High industry knowledge leads to less disparities in interpretation of communication, and generally leads to more positive perceptions of the meat industry no matter the degree of disclosure. On the other hand, low

industry knowledge gives the opposite results and tends to indicate non-farmer consumers who are rarely exposed to farm animals.

The results of this study proved that the degree of FAW disclosure has a significant direct effect on perceived transparency, in addition to industry knowledge directly influencing perceived transparency effort. Although our initial findings indicated that high industry knowledge would potentially steer perceptions of transparency in a positive direction, the results proved that having knowledge about the industry does not moderate a corporation's attempt at disclosing information concerning FAW. Nevertheless, this does not negate the analysis or support of our research question. We therefore find that corporate communicators could proactively disclose higher amounts of information about FAW as this gains more positive perception than if disclosing low amounts of FAW information. Nonetheless, an evaluation must likely be made concerning the need to utilize high FAW disclosure, as medium FAW disclosure delivers almost as good on perceived transparency. Depending on the topic, we see medium FAW disclosure as a sweet spot for corporate communicators, although if the FAW context requires high industry knowledge, high FAW disclosure might be a better approach. We are therefore certain that this study confirms and supports the idea that being more transparent in regard to FAW can be essential in terms of gaining positive public perception of the farm animal welfare practices in the meat industry.

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Appendix

Appendix A – *Interview guide for in-depth interviews (pre-study)*

Intervju guide - Dybdeintervju
Masteroppgave ved Handelshøyskolen BI - Oslo 2022

- Individuelt, semistrukturert intervju

<u>Målgruppe:</u> 2x forbruker, 2x bonde, og 2x industri eksperter (Nortura)
<u>Lengde:</u> 50-75 minutter

<u>Tema:</u> Kartlegging av målgruppens kunnskap og oppfatning av transparent bedriftskommunikasjon, samt hvordan målgruppen bruker slik informasjon når de tar beslutninger.

<u>Problemstilling:</u> Har forbrukere, bønder og merkevarehus en ulik forventning til transparens i kjøttbransjen?

<u>Form:</u> To administratorer møter intervjuobjektet. "Senior" har rollen som intervjuer, mens "Junior" tar notater av dialogen mellom intervjuer og intervjuobjekt. Det kan oppstå oppfølgingsspørsmål underveis, og senior må derfor være forberedt på å notere noen funn selv. Senioren oppsummerer og avklarer diskusjonen på slutten av intervjuet, mens junior bryter inn under mulige misforståelser eller for avklaringer. Referat av de viktigste punktene skrives av junior.

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1. **Rammeverk**
   1. Uformell samtale (2-5 minutter)
   2. Informasjon om prosjektet og problemstillingen
2. **Erfaring**
   1. Overgangsspørsmål (5-10 minutter)
   2. Bli kjent med respondentens tidligere erfaring og kjennskap til problemstillingen
3. **Fokus**
   1. Nøkkelspørsmål (40-50 minutter)
   2. Oppfølgningsspørsmål
4. **Oppsummering**
   1. Oppsummering (5-10 minutter)
   2. Eventuelle oppklaringer

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1. **Rammeverk**

- Uformell samtale (2-5 minutter)
- Informasjon om prosjektet og problemstillingen
  - Bakgrunn og formål for samtalen
  - Hva skal intervjuet brukes til?
  - Forsikre respondenten om anonymitet og taushetsplikt

1

> - Gi informasjon om at intervjuene blir anonymisert, lagret på kun èn PC, anonymiserte data vil kun bli delt med veileder og slettet etter at masteroppgaven er forsvart.
> - Informer om lydopptak og sørg fra samtykke fra respondenten.
> - Har respondenten noe spørsmål før vi starter?
> - **START**

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2. **Erfaring**

- Avklar og fokuser på respondentens erfaring eller kjennskap til tema/problemstilling (5-10 minutter)
- Oppfølgningsspørsmål

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3. **Fokus**

- Nøkkelspørsmål (40-50 minutter)

A. Transparens
- *Grand Tour spørsmål:*
  - Hva betyr transparens for deg?

- *Oppfølgningsspørsmål:*
  - Hvis du måtte koke transparens ned til tre ord, hvilke tre ord hadde det vært?
  - Hva tenker du når vi snakker om transparens i kjøttbransjen?
  - Hva tror du folks flest tenker transparens er?
  - Hva ser du på som formålet med transparens?
  - Hvor mye opptar du deg av transparens i dag?

B. Transparens i bedrifter:

- *Grand Tour spørsmål:*
  - Hva tenker du når du hører at et selskap er transparent?

- *Oppfølgningsspørsmål:*
  - På hvilken mate ser du at et selskap kan være transparent?
  - Opplever du at tiltakene selskap tar/gjør for å bli/være transparens er oppriktig eller nødvendig?
  - Hva mener du er grunnen til at folk er mer skeptiske til kjøttbransjen enn andre industrier?
  - Hva er viktig å få frem i kommunikasjon for at du oppfatter det som transparent?
  - Hva ville du fokusert på hadde du hatt mulighet til å forme et selskaps transparente kommunikasjon?
  - Hvordan kan selskaper i kjøttbransjen øke troverdigheten sin når de kommuniserer utad?
  - Har du noen eksempler på selskap som er mer transparent enn andre i kjøttbransjen?

C. Implikasjoner av teknologi på transparens

2

- *Grand Tour spørsmål:*
  - o Tror du kjøttbransjen har blitt mer transparent på grunn av teknologisk utvikling?

- *Oppfølgningsspørsmål:*
  - o På hvilken måte?
  - o Har du noen eksempler på tapte muligheter eller potensial hvor selskaper kan være mer transparent i kjøttbransjen?
  - o Hvordan ser du for deg at kjøttbransjen kan bruke nåværende eller fremtidig teknologi til å være mer transparent i kommunikasjonen?

D. <u>Kommunikasjonsutfordringer</u>

- *Grand Tour spørsmål:*
  - o Kan man forvente at forbedret eller mer tilgjengelig informasjon kan bidra til å tette gapet i oppfatningen av kjøttindustrien mellom ulike aktører (bønder/Nortura/kunde)?

- *Oppfølgningsspørsmål:*
  - o Hvorfor / hvorfor ikke?
  - o SoMe
  - o Reklame
  - o Labeling

----
4. Oppsummering

- Senior oppsummerer og gjengir til respondenten de sentrale punktene som kom frem i løpet av intervjuet.
- Avklaring av eventuelle misforståelser, uklarheter eller annet.
- Spørre respondenten om de har noe mer å tilføye.

- **STOPP**

Etterarbeid:
- Referat av de viktigste punkter skrives ned i etterkant av «junior» ved hjelp av lydopptak. Lydopptaket lagres kun på èn PC og vil lagres trygt på veiledende institusjons plattform som støttes av sikkerhetsløsninger. All data slettes når masteroppgaven er forsvart.

1. Consent Form

2. Control question

3. Industry Knowledge

4. Experimental treatments

Low treatment (1/3 experiment treatment groups)

Nå får alle kyllinger bedre dyrevelferd

Med kyllingbonden på laget bidrar norsk kjøttbransje til bedre velferd for alle sine kyllinger.

En produsent i kjøttbransjen innførte trivselstiltak for en mindre andel av sine kyllinger i 2018. Det gjaldt da kylling som ble solgt i butikk, blant annet. Etter å ha hatt positive effekter av tiltaket, innførte produsenten dette for alle sine kyllinger produsert i Norge.

For at kyllingene skal få mer variasjon og økt trivsel ble det innført nye elementer i innhegningen i samtlige kyllingfjøs.

Produsenten jobber med ulike tiltak for dyrene sine. Observasjoner hos kyllingene viser at trivselen øker, dvs. at tiltakene virker.

Kjøttbransjen innførte samme type trivselstiltak for alle kyllinger produsert i Norge innen utgangen av våren 2018.

High treatment (1/3 experiment treatment groups)

Nå får alle kyllinger bedre dyrevelferd

Med kyllingbonden på laget bidrar norsk kjøttbransje til bedre velferd for alle sine kyllinger.

En produsent i kjøttbransjen innførte trivselstiltak for rundt en fjerdedel av sine kyllinger i 2016. Dette gjaldt da kyllingene som blant annet ble solgt hos MENY. Suksessen med trivselstiltakene og forbedrede kyllingvilkår gjorde at kjøttbransjen innførte trivselstiltak for alle kyllingene sine, og dermed all kylling i norske butikker.

De nye tiltakene gir kyllingene mer variasjon og økt trivsel ved innføring av elementer som flisballer som stimulerer kyllingens søke- og hakketrang. Torvstrø for strøbading og små aktivitetshus for klatring introduseres også. Dette gir et stimulerende miljø for lekne dyr som kyllinger.

Sammen jobber den norske kjøttbransjen systematisk med å maksimere effekten av velferdstiltakene, noe som gir viktig kunnskap både for bønder, slakterier, produsenter og distributører, samt forbrukere, på hvordan dyrevelferd kan forbedres.

Kjøttbransjen innførte samme type trivselstiltak for alle kyllinger produsert i Norge innen utgangen av våren 2018. Les mer om hvordan det jobbes med dyrevelferd i Norge.

Den norske kjøttbransjen jobber alltid for å opprettholde og bedre god dyrevelferd, derfor søker vi nå engasjerte personer til vårt nye dyrevelferdspanel. Ved interesse, send oss en epost via våre hjemmesider.

Control group (aka. medium) (1/3 experiment treatment groups)

Nå får alle kyllinger bedre dyrevelferd

Med kyllingbonden på laget bidrar norsk kjøttbransje til bedre velferd for alle sine kyllinger.

En produsent i kjøttbransjen innførte trivselstiltak for rundt en fjerdedel av sine kyllinger i 2016. Dette gjaldt da kyllingene som blant annet ble solgt hos MENY. Dette var så vellykket at kjøttbransjen innførte dette for alle sine kyllinger, og dermed også all kylling i norske butikker.

For at kyllingene skal få mer variasjon og økt trivsel innføres elementer som flisballer, torvstrø og små aktivitetshus de kan klatre på for alle.

Kjøttbransjen jobber systematisk med å forske på effekten av de ulike tiltakene, noe som gir viktig kunnskap både for norsk og internasjonal fjørfebransje. Observasjoner hos kyllingene som har fått muligheter til variert aktivitet viser at dette fungerer svært godt, og er et godt tiltak for kyllingens trivsel.

Kjøttbransjen innførte samme type trivselstiltak for alle kyllinger produsert i Norge innen utgangen av våren 2018.

5. Perceived transparency effort

Accountability

Etter å ha lest uttalelsen, oppfatter jeg at informasjonen:

	Sterkt uenig	Uenig	Litt uenig	Verken enig eller uenig	Litt enig	Enig	Sterkt enig
"Imøtekommer et dyrevelferds problem"	○	○	○	○	○	○	○
"Åpner opp for kritikk"	○	○	○	○	○	○	○
"Anerkjenner svikt i dyrevelferd"	○	○	○	○	○	○	○
"På en nøytral (objektiv) måte rapporterer bedriftens aktiviteter og regelverk"	○	○	○	○	○	○	○
"Kan sammenlignes med andre i industrien"	○	○	○	○	○	○	○

Participation

Etter å ha lest uttalelsen, oppfatter jeg at informasjonen:

	Sterkt uenig	Uenig	Litt uenig	Verken enig eller uenig	Litt enig	Enig	Sterkt enig
"Er detaljert"	○	○	○	○	○	○	○
"Oppfordrer meg til å si min mening"	○	○	○	○	○	○	○
"Appellerer til mine behov"	○	○	○	○	○	○	○
"Gjør det enkelt å finne videre informasjon"	○	○	○	○	○	○	○
"Oppmuntrer til tilbakemelding"	○	○	○	○	○	○	○
"Involverer meg"	○	○	○	○	○	○	○

Substantial Information

Etter å ha lest uttalelsen, oppfatter jeg at informasjonen:

	Sterkt uenig	Uenig	Litt uenig	Verken enig eller uenig	Litt enig	Enig	Sterkt enig
"Er lett å forstå"	○	○	○	○	○	○	○
"Er tidsriktig"	○	○	○	○	○	○	○
"Er fullstendig"	○	○	○	○	○	○	○
"Er pålitelig"	○	○	○	○	○	○	○
"Er relevant"	○	○	○	○	○	○	○
"Nøyaktig representerer norsk dyrevelferd"	○	○	○	○	○	○	○
"Er sammenlignbart med konkurrenter"	○	○	○	○	○	○	○

6. Complementary questions

Hva er hovedkilden din til informasjon om dyrevelferd?

- ○ Reklame (TV, radio, trykk)
- ○ Har ingen hovedkilde knyttet til dyrevelferd
- ○ Produsentens hjemmeside
- ○ Personlige blogger
- ○ I butikk (på produkt)
- ○ Sosiale medier
- ○ Venner / Familie
- ○ Nyhetsmedier
- ○ Interesseorganisasjoner (NGO)

Du får nå velge mellom kokt skinke fra en norsk produsent, med ulik informasjon om dyrevelferden / hvordan grisen har hatt det. Pakkene med informasjon, vil være litt dyrere (ca. 10-15 % dvs. 2-4 kr mer for en 110 grams pakke) enn de på markedet i dag, uten slik informasjon. NB! Svaret ditt vil kunne påvirke prisen og merkingen fra neste år.

- ○ Produktet har sporing (på nett eller med QR-kode) der du kan se informasjon om hvilken gård grisen kommer fra, hva grisen har spist, inneklima i fjøset etc.
- ○ Produktet har et dyrevelferdsmerke som du stoler på (sertifisert av en nøytral part).
- ○ Vanlig kokt skinke fra en norsk produsent til dagens pris.
- ○ Produktet er verifisert med en smilefjesskala 🙂😊😀 slik at den tilfredsstiller, er bedre, eller mye bedre enn kravene fra Mattilsynet.
- ○ Produktet er fra gris med bedre plass i bingen (enn norsk standard)
- ○ Produktet er merket med «100% norsk kjøttråvare»

Du får nå velge mellom kokt skinke fra en norsk produsent, med ulik informasjon om hvor bærekraftig produktet er. Pakkene med informasjon, vil være litt dyrere (ca. 10-15 % dvs. 2-4 kr mer for en 110 grams pakke) enn de på markedet i dag, uten slik informasjon. NB! Svaret ditt vil kunne påvirke prisen og merkingen fra neste år.

- ○ Produktet har 30% redusert klimautslipp (målt mot sammenliknbare produkter).
- ○ Vanlig kokt skinke fra en norsk produsent til dagens pris.
- ○ Produktet har et dyrevelferdsmerke som du stoler på (sertifisert av nøytral part).
- ○ 15% mer betalt til bonden (ifølge bondens samvirke Nortura).
- ○ Dyrene har fått 100% norsk fôr.
- ○ Produktet er merket med "100% norsk".

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7. Demographics

BI HANDELSHØYSKOLEN   8

Hvilket kjønn identifiserer du deg som?

○ Mann

○ Kvinne

○ Annet

Vennligst skriv din alder:

Er du bonde?

○ Ja

○ Nei

8. End of survey

Tusen takk for din deltakelse! Dine svar er nå registrert og du kan lukke dette vinduet.

Til info:
Formålet med denne undersøkelsen har vært å kartlegge hvordan ulike grader av transparent kommunikasjon angående dyrevelferd påvirker folks oppfatning av en aktørs innsats i å være transparent om sine handlinger. Samtidig ser vi på hvordan folks tidligere kunnskap om bransjen kan påvirke dette forholdet. Det var derfor ikke noe riktig eller galt svar på teksten du ble presentert fra den norske kjøttbransjen.

Alle som tar undersøkelsen blir tilfeldig plassert i en kontrollgruppe eller en av to eksperimentgrupper. Kun de som får kontrollgruppen blir eksponert for en ekte tekst. Det som står i de to eksperimentgruppene er ikke nødvendigvis sant og kan ikke tas seriøst. Dersom du har lest at (1) du kan søke deg til et dyrevelferdspanel eller (2) **ikke** lest noe om matbutikken "MENY", så har du havnet i en av eksperimentgruppene.

NB: Denne undersøkelsen kan ikke knyttes til noen av aktørene innenfor norsk mat industri og all kommunikasjon formidlet her er fiktiv.

Alle spørsmål eller tilbakemelding om eventuelle feil kan rettes til varnerhenrik@gmail.com eller magnus.furnes96@hotmail.com

Appendix C – *Survey flow (main study)*
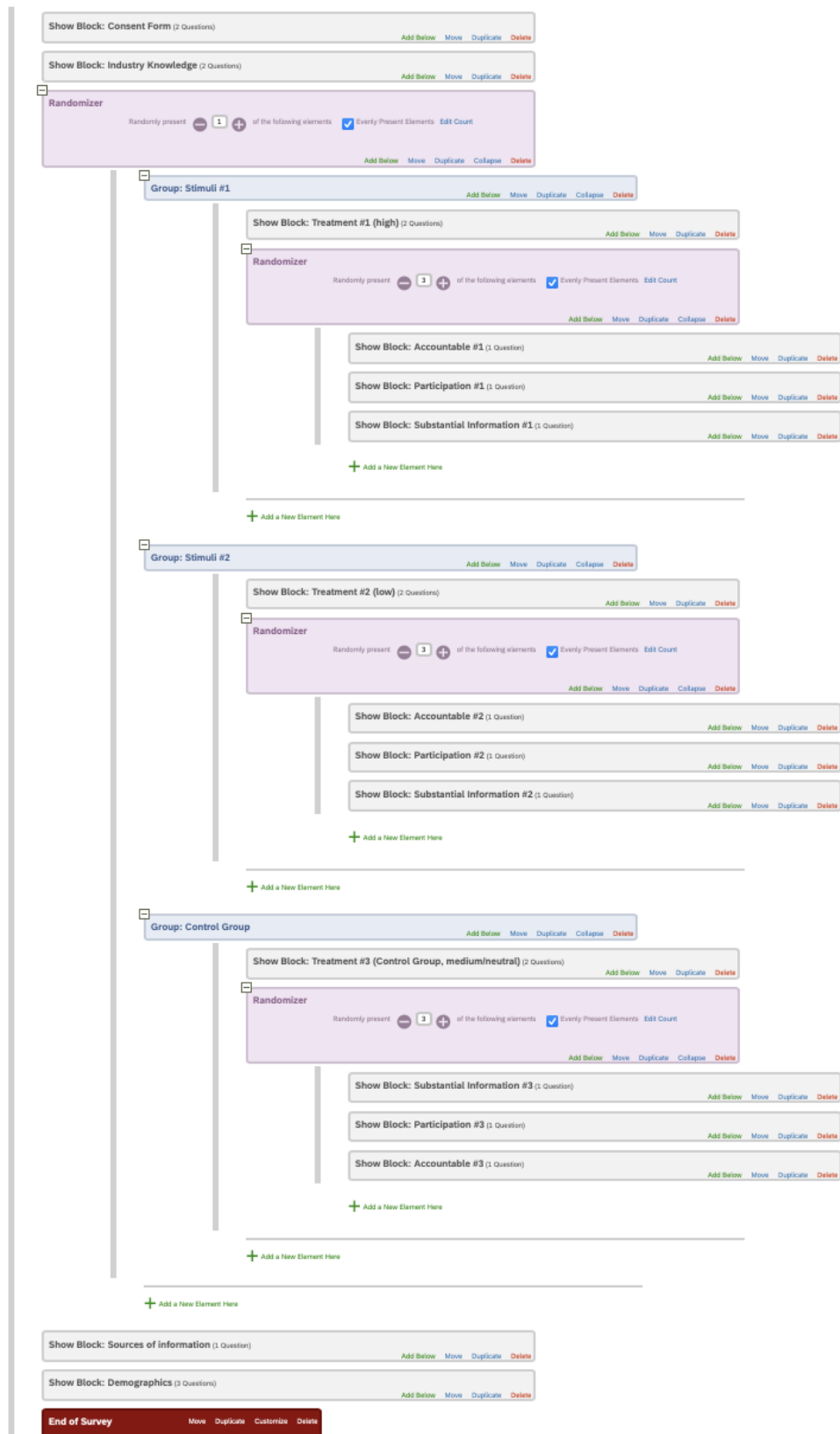
Appendix D – *Answers and Scoring of Industry Knowledge Assessment*

The farmer is responsible for ensuring that the regulatory requirements for animal welfare on the farm are followed up	True
Antibiotics are only used on sick animals, not as a preventive measure, in Norway	True
Animal welfare on the farms is followed up through inspections by the Norwegian Food Safety Authority (Mattilsynet)	True
Nortura, a cooperative and Norway's largest meat company, is owned by 17,000 farmers	True
Nortura has no obligation to receive animals, and must not accept animals from all farmers throughout Norway	False
Norwegian cows that graze and eat grass are more climate-friendly than most cows in other countries that use more concentrate	True
In many countries, the animals receive antibiotics in their feed	True
There are no standardized requirements for the contents of a Wiener sausage	False

Correct Answers	Percent Score	Percentile	Knowledge Level
0	0%	0	Low
1	12.5%	12.5	Low
2	12.5%	25	Low
3	12.5%	37.5	Low
4	12.5%	50	Low
5	12.5%	62.5	Medium
6	12.5%	75	Medium
7	12.5%	87.5	High
8	12.5%	100	High

Appendix E – *Cronbach's Alpha, Reliability Statistics of Transparency Items*

High Treatment:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,673	,680	5

Accountability

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,843	,842	6

Participation

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,875	,872	7

Substantial Information

Low Treatment:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,698	,701	5

Accountability

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,807	,812	6

Participation

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,863	,861	7

Substantial Information

Control Group / Medium Treatment:

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,536	,535	5

Accountability

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Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,866	,866	6

Participation

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,895	,893	7

Substantial Information

Appendix F – *Characteristics of Respondents*

Carnivore

		Frequency	Valid Percent
Valid	Yes	306	96,2
	No	12	3,8
	Total	318	100,0

Gender

		Frequency	Valid Percent
Valid	Male	191	62,4
	Female	114	37,3
	Other	1	,3
	Total	306	100,0

Generation

		Frequency	Valid Percent
Valid	Gen Z	43	14,1
	Millennials	79	25,8
	Gen X	124	40,5
	Baby Boomers	60	19,6
	Total	306	100,0

Farmer

		Frequency	Valid Percent
Valid	Yes	122	39,9
	No	184	60,1
	Total	306	100,0

Age

		Frequency	Valid Percent
Valid	22	3	1,0
	23	3	1,0
	24	11	3,6
	25	26	8,5
	26	9	2,9
	27	8	2,6
	28	6	2,0
	29	6	2,0
	30	9	2,9
	31	4	1,3
	32	5	1,6
	33	4	1,3
	34	2	,7
	35	4	1,3
	36	6	2,0
	37	2	,7
	38	3	1,0
	39	4	1,3
	40	3	1,0
	41	4	1,3
	42	12	3,9
	43	5	1,6
	44	7	2,3
	45	4	1,3
	46	8	2,6
	47	10	3,3
	48	6	2,0
	49	8	2,6
	50	5	1,6
	51	6	2,0
	52	11	3,6
	53	7	2,3
	54	12	3,9
	55	7	2,3
	56	3	1,0
	57	13	4,2
	58	6	2,0
	59	11	3,6
	60	8	2,6
	61	3	1,0
	62	6	2,0
	63	3	1,0
	64	5	1,6
	65	2	,7
	66	4	1,3
	67	1	,3
	68	2	,7
	69	1	,3
	70	1	,3
	72	5	1,6
	75	1	,3
	77	1	,3
	Total	306	100,0

Information_Source

		Frequency	Valid Percent
Valid	News media	100	31,4
	Social media	29	9,1
	Interest groups (NGOs)	27	8,5
	Corporate website	36	11,3
	Friends / Family	10	3,1
	Advertising (TV, radio, print)	8	2,5
	In-store (labeling)	11	3,5
	Have no main source for animal welfare	85	26,7
	Total	306	100,0

Appendix G – *Hypothesis 1*

One-Sample Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval Lower	95% Confidence Interval Upper
TOTAL_Avg.Perception	Cohen's d	,80822	,000	-,112	,112
	Hedges' correction	,81021	,000	-,112	,112
Avg. Perceived Transparency (High)	Cohen's d	,76512	,307	,105	,507
	Hedges' correction	,77097	,304	,105	,503
Avg. Perceived Transparency (Low)	Cohen's d	,71475	-,451	-,656	-,243
	Hedges' correction	,72028	-,447	-,651	-,241

a. The denominator used in estimating the effect sizes.
Cohen's d uses the sample standard deviation.
Hedges' correction uses the sample standard deviation, plus a correction factor.

COHEN'S D	INTERPRETATION	RPB	% OVERLAP	RECOMMENDED N
d = 0.2	Small effect	± 0.100	± 92%	788
d = 0.5	Medium effect	± 0.243	± 80%	128
d = 0.8	Large effect	± 0.371	± 69%	52

Appendix H – *Hypothesis 2*

Descriptives

TOTAL_Avg.Perception

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
Low	99	3,8833	,71475	,07183	3,7407	4,0258	1,94	5,72
Medium	107	4,2840	,83989	,08120	4,1230	4,4450	1,50	5,67
High	100	4,4400	,76512	,07651	4,2882	4,5918	1,83	6,17
Total	306	4,2053	,80822	,04620	4,1144	4,2963	1,50	6,17

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
TOTAL_Avg.Perception	Based on Mean	1,000	2	303	,369
	Based on Median	,897	2	303	,409
	Based on Median and with adjusted df	,897	2	296,509	,409
	Based on trimmed mean	,889	2	303	,412
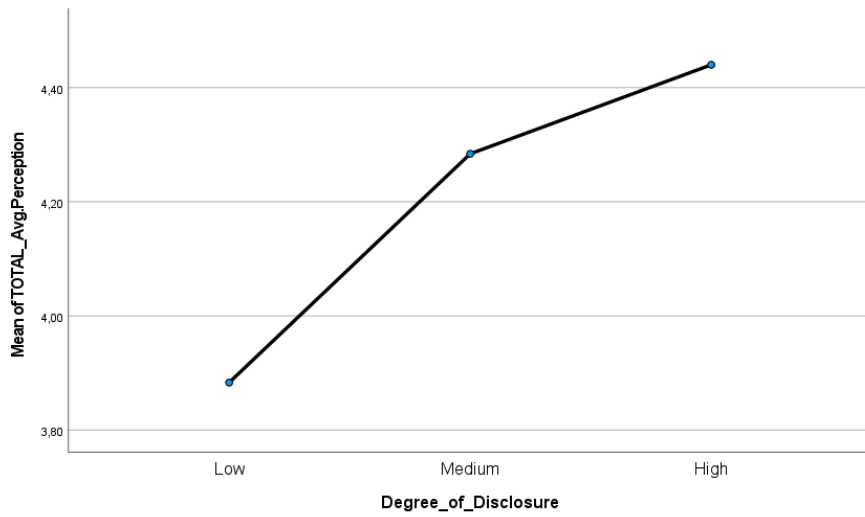
Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Avg. Perceived Transparency (High)	Yes	39	4,3162	,77024	,12334	4,0666	4,5659	1,83	5,61
	No	61	4,5191	,75753	,09699	4,3251	4,7131	2,33	6,17
	Total	100	4,4400	,76512	,07651	4,2882	4,5918	1,83	6,17
Avg. Perceived Transparency (Low)	Yes	40	4,0625	,65374	,10337	3,8534	4,2716	2,72	5,72
	No	59	3,7618	,73392	,09555	3,5705	3,9530	1,94	5,39
	Total	99	3,8833	,71475	,07183	3,7407	4,0258	1,94	5,72

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Avg. Perceived Transparency (High)	Based on Mean	,103	1	98	,749
	Based on Median	,110	1	98	,741
	Based on Median and with adjusted df	,110	1	96,436	,741
	Based on trimmed mean	,098	1	98	,755
Avg. Perceived Transparency (Low)	Based on Mean	,327	1	97	,569
	Based on Median	,154	1	97	,696
	Based on Median and with adjusted df	,154	1	92,990	,696
	Based on trimmed mean	,292	1	97	,590

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Statistics

		TOTAL_Avg. Perception	Avg. Perceived Transparency (High)	Avg. Perceived Transparency (Low)
N	Valid	306	100	99
	Missing	12	218	219
Mean		4,2053	4,4400	3,8833
Std. Error of Mean		,04620	,07651	,07183
Std. Deviation		,80822	,76512	,71475
Variance		,653	,585	,511
Minimum		1,50	1,83	1,94
Maximum		6,17	6,17	5,72

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Appendix I – *Hypothesis 3a*

Statistical Model:
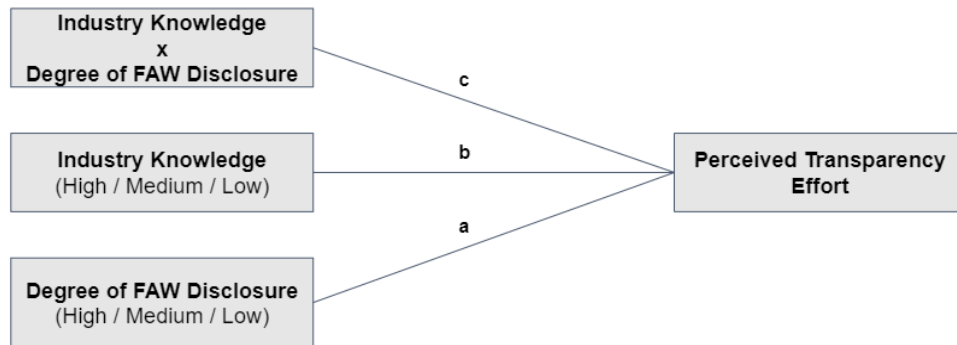
Step 1:

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
					Change Statistics				
1	,278[a]	,077	,074	,77764	,077	25,459	1	304	<,001

a. Predictors: (Constant), Degree_of_Disclosure
b. Dependent Variable: TOTAL_Avg.Perception

Step 2:

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
					Change Statistics				
1	,318[a]	,101	,095	,76871	,101	17,079	2	303	<,001

a. Predictors: (Constant), Knowledge_Level, Degree_of_Disclosure
b. Dependent Variable: TOTAL_Avg.Perception

Step 3:

Knowledge_Level * Degree_of_Disclosure Crosstabulation

Count

		Degree_of_Disclosure			Total
		Low	Medium	High	
Knowledge_Level	Low	9	16	10	35
	Medium	45	29	31	105
	High	45	62	59	166
Total		99	107	100	306

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9,433[a]	4	,051
Likelihood Ratio	9,243	4	,055
Linear-by-Linear Association	1,672	1	,196
N of Valid Cases	306		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 11,32.

Knowledge_Level * Perceived_Transp_Effort Crosstabulation

Count

		Perceived_Transp_Effort			
		Negative perception	Neutral perception	Positive perception	Total
Knowledge_Level	Low	11	13	11	35
	Medium	23	51	31	105
	High	18	72	76	166
Total		52	136	118	306

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15,273[a]	4	,004
Likelihood Ratio	14,942	4	,005
Linear-by-Linear Association	11,955	1	<,001
N of Valid Cases	306		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 5,95.

Step 4:

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	,318[a]	,101	,095	,76871	,101	17,079	2	303	<,001
2	,328[b]	,107	,099	,76734	,006	2,079	1	302	,150

a. Predictors: (Constant), Knowledge_Level, Degree_of_Disclosure

b. Predictors: (Constant), Knowledge_Level, Degree_of_Disclosure, COMPUTE Interaction1=Degree_of_Disclosure*Knowledge_Level

Step 5:

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	,328[a]	,107	,099	,76734	,107	12,119	3	302	<,001

a. Predictors: (Constant), COMPUTE Interaction2=ZSco01*ZDegree_of_Disclosure, Zscore(Degree_of_Disclosure), Zscore (Knowledge_Level)

Step 6:

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Knowledge_Level: Medium

Knowledge_Level: High
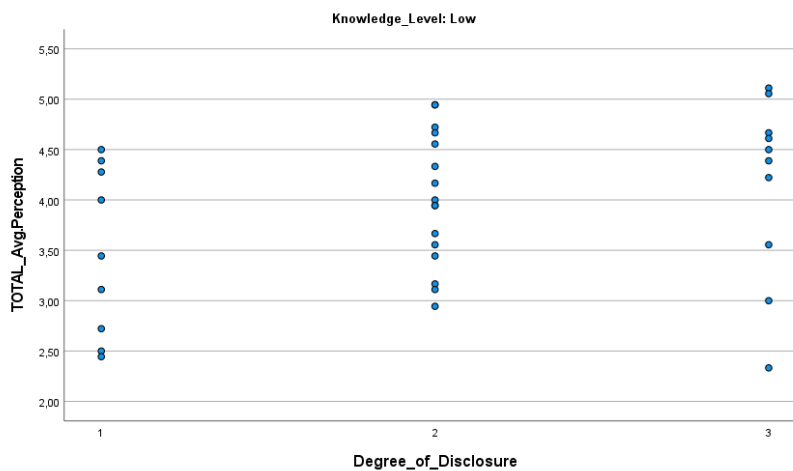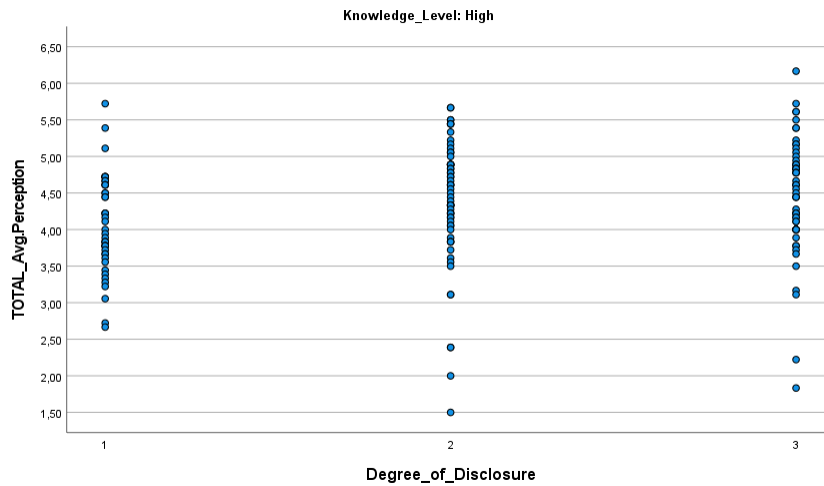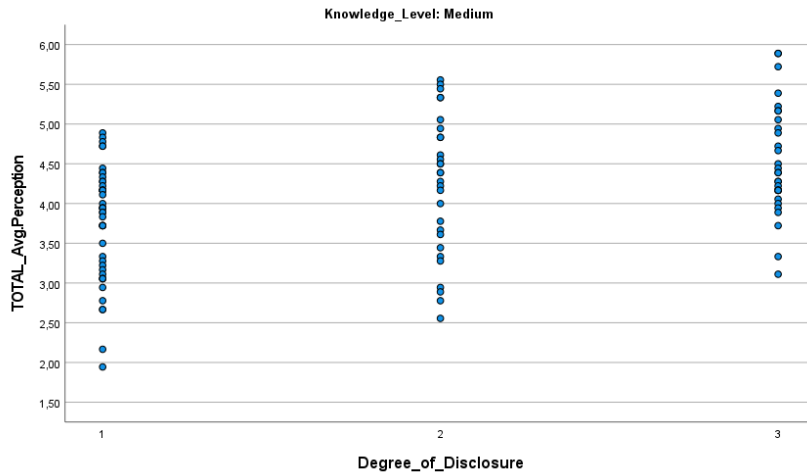
Appendix J – *Hypothesis 3b*

Descriptives

TOTAL_Avg.Perception

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Low	35	3,9127	,79752	,13481	3,6387	4,1867	2,33	5,11
Medium	105	4,1169	,80897	,07895	3,9604	4,2735	1,94	5,89
High	166	4,3230	,79174	,06145	4,2016	4,4443	1,50	6,17
Total	306	4,2053	,80822	,04620	4,1144	4,2963	1,50	6,17

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
TOTAL_Avg.Perception	Based on Mean	,243	2	303	,785
	Based on Median	,164	2	303	,849
	Based on Median and with adjusted df	,164	2	300,496	,849
	Based on trimmed mean	,217	2	303	,805
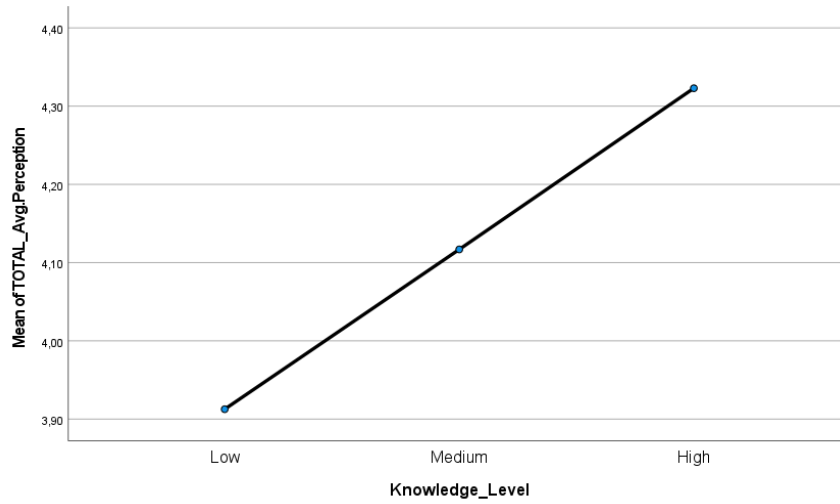
Appendix K – *Hypothesis 4*

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
Avg. Perceived Transparency (High)	Yes	39	4,3162	,77024	,12334	4,0666	4,5659	1,83	5,61
	No	61	4,5191	,75753	,09699	4,3251	4,7131	2,33	6,17
	Total	100	4,4400	,76512	,07651	4,2882	4,5918	1,83	6,17
Avg. Perceived Transparency (Low)	Yes	40	4,0625	,65374	,10337	3,8534	4,2716	2,72	5,72
	No	59	3,7618	,73392	,09555	3,5705	3,9530	1,94	5,39
	Total	99	3,8833	,71475	,07183	3,7407	4,0258	1,94	5,72

Tests of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Avg. Perceived Transparency (High)	Based on Mean	,103	1	98	,749
	Based on Median	,110	1	98	,741
	Based on Median and with adjusted df	,110	1	96,436	,741
	Based on trimmed mean	,098	1	98	,755
Avg. Perceived Transparency (Low)	Based on Mean	,327	1	97	,569
	Based on Median	,154	1	97	,696
	Based on Median and with adjusted df	,154	1	92,990	,696
	Based on trimmed mean	,292	1	97	,590

COHEN'S D	INTERPRETATION	RPB	% OVERLAP	RECOMMENDED N
d = 0.2	Small effect	± 0.100	± 92%	788
d = 0.5	Medium effect	± 0.243	± 80%	128
d = 0.8	Large effect	± 0.371	± 69%	52
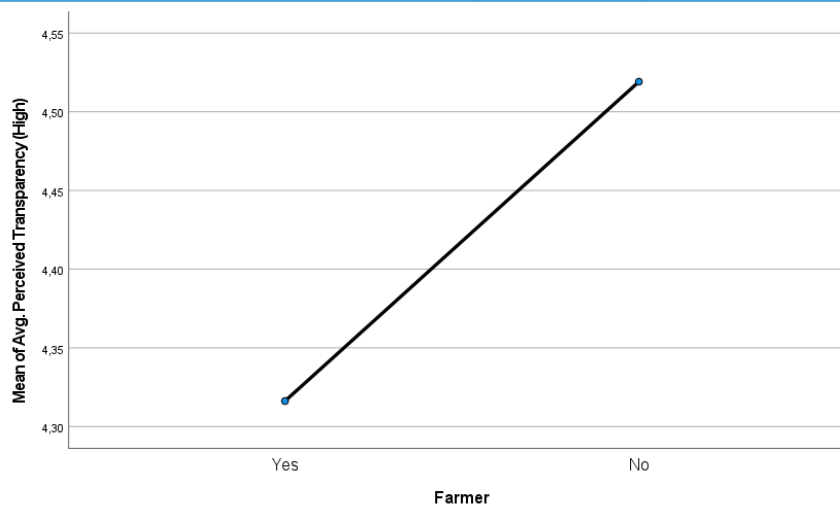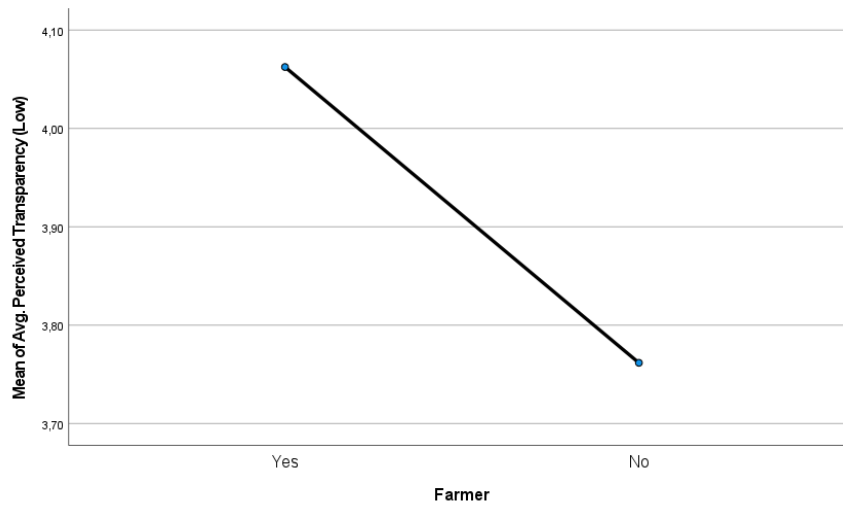
Appendix L - *Information Source:*
<u>ANOVA 1:</u>

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
News_Media	Gen Z	43	,4186	,49917	,07612	,2650	,5722	,00	1,00
	Millennials	79	,3038	,46283	,05207	,2001	,4075	,00	1,00
	Gen X	124	,3629	,48279	,04336	,2771	,4487	,00	1,00
	Baby Boomers	60	,2167	,41545	,05363	,1093	,3240	,00	1,00
	Total	306	,3268	,46981	,02686	,2739	,3796	,00	1,00
SocialMedia	Gen Z	43	,2558	,44148	,06733	,1199	,3917	,00	1,00
	Millennials	79	,1392	,34841	,03920	,0612	,2173	,00	1,00
	Gen X	124	,0403	,19751	,01774	,0052	,0754	,00	1,00
	Baby Boomers	60	,0333	,18102	,02337	-,0134	,0801	,00	1,00
	Total	306	,0948	,29338	,01677	,0618	,1278	,00	1,00
NGOs	Gen Z	43	,0698	,25777	,03931	-,0096	,1491	,00	1,00
	Millennials	79	,0886	,28599	,03218	,0245	,1527	,00	1,00
	Gen X	124	,0726	,26050	,02339	,0263	,1189	,00	1,00
	Baby Boomers	60	,1333	,34280	,04426	,0448	,2219	,00	1,00
	Total	306	,0882	,28410	,01624	,0563	,1202	,00	1,00
Brand_Webpage	Gen Z	43	,0000	,00000	,00000	,0000	,0000	,00	,00
	Millennials	79	,0886	,28599	,03218	,0245	,1527	,00	1,00
	Gen X	124	,1532	,36167	,03248	,0889	,2175	,00	1,00
	Baby Boomers	60	,1667	,37582	,04852	,0696	,2638	,00	1,00
	Total	306	,1176	,32272	,01845	,0813	,1539	,00	1,00
Personal_Blogs	Gen Z	43	,0000	,00000	,00000	,0000	,0000	,00	,00
	Millennials	79	,0000	,00000	,00000	,0000	,0000	,00	,00
	Gen X	124	,0000	,00000	,00000	,0000	,0000	,00	,00
	Baby Boomers	60	,0000	,00000	,00000	,0000	,0000	,00	,00
	Total	306	,0000	,00000	,00000	,0000	,0000	,00	,00
Word_of_Mouth	Gen Z	43	,0000	,00000	,00000	,0000	,0000	,00	,00
	Millennials	79	,0380	,19236	,02164	-,0051	,0811	,00	1,00
	Gen X	124	,0323	,17740	,01593	,0007	,0638	,00	1,00
	Baby Boomers	60	,0500	,21978	,02837	-,0068	,1068	,00	1,00
	Total	306	,0327	,17809	,01018	,0126	,0527	,00	1,00
Commercials_TVRadioPrint	Gen Z	43	,0698	,25777	,03931	-,0096	,1491	,00	1,00
	Millennials	79	,0253	,15809	,01779	-,0101	,0607	,00	1,00
	Gen X	124	,0081	,08980	,00806	-,0079	,0240	,00	1,00
	Baby Boomers	60	,0333	,18102	,02337	-,0134	,0801	,00	1,00
	Total	306	,0261	,15982	,00914	,0082	,0441	,00	1,00
Product_Label	Gen Z	43	,0698	,25777	,03931	-,0096	,1491	,00	1,00
	Millennials	79	,0759	,26661	,03000	,0162	,1357	,00	1,00
	Gen X	124	,0081	,08980	,00806	-,0079	,0240	,00	1,00
	Baby Boomers	60	,0167	,12910	,01667	-,0167	,0500	,00	1,00
	Total	306	,0359	,18646	,01066	,0150	,0569	,00	1,00
No_MainSource	Gen Z	43	,1163	,32435	,04946	,0165	,2161	,00	1,00
	Millennials	79	,2405	,43012	,04839	,1442	,3368	,00	1,00
	Gen X	124	,3226	,46936	,04215	,2391	,4060	,00	1,00
	Baby Boomers	60	,3500	,48099	,06210	,2257	,4743	,00	1,00
	Total	306	,2778	,44864	,02565	,2273	,3282	,00	1,00

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ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
News_Media	Between Groups	1,294	3	,431	1,972	,118
	Within Groups	66,027	302	,219		
	Total	67,320	305			
SocialMedia	Between Groups	1,866	3	,622	7,701	<,001
	Within Groups	24,386	302	,081		
	Total	26,252	305			
NGOs	Between Groups	,167	3	,056	,688	,560
	Within Groups	24,451	302	,081		
	Total	24,618	305			
Brand_Webpage	Between Groups	,963	3	,321	3,147	,025
	Within Groups	30,802	302	,102		
	Total	31,765	305			
Personal_Blogs	Between Groups	,000	3	,000	.	.
	Within Groups	,000	302	,000		
	Total	,000	305			
Word_of_Mouth	Between Groups	,066	3	,022	,693	,557
	Within Groups	9,607	302	,032		
	Total	9,673	305			
Commercials_TVRadioPrint	Between Groups	,126	3	,042	1,648	,178
	Within Groups	7,665	302	,025		
	Total	7,791	305			
Product_Label	Between Groups	,294	3	,098	2,874	,037
	Within Groups	10,310	302	,034		
	Total	10,605	305			
No_MainSource	Between Groups	1,793	3	,598	3,029	,030
	Within Groups	59,596	302	,197		
	Total	61,389	305			

ANOVA 2:

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
News_Media	Low	35	,3429	,48159	,08140	,1774	,5083	,00	1,00
	Medium	105	,5048	,50238	,04903	,4075	,6020	,00	1,00
	High	166	,2108	,40914	,03176	,1481	,2735	,00	1,00
	Total	306	,3268	,46981	,02686	,2739	,3796	,00	1,00
SocialMedia	Low	35	,2000	,40584	,06860	,0606	,3394	,00	1,00
	Medium	105	,1048	,30772	,03003	,0452	,1643	,00	1,00
	High	166	,0663	,24950	,01936	,0280	,1045	,00	1,00
	Total	306	,0948	,29338	,01677	,0618	,1278	,00	1,00
NGOs	Low	35	,1714	,38239	,06463	,0401	,3028	,00	1,00
	Medium	105	,0381	,19234	,01877	,0009	,0753	,00	1,00
	High	166	,1024	,30410	,02360	,0558	,1490	,00	1,00
	Total	306	,0882	,28410	,01624	,0563	,1202	,00	1,00
Brand_Webpage	Low	35	,0000	,00000	,00000	,0000	,0000	,00	,00
	Medium	105	,0381	,19234	,01877	,0009	,0753	,00	1,00
	High	166	,1928	,39567	,03071	,1321	,2534	,00	1,00
	Total	306	,1176	,32272	,01845	,0813	,1539	,00	1,00
Personal_Blogs	Low	35	,0000	,00000	,00000	,0000	,0000	,00	,00
	Medium	105	,0000	,00000	,00000	,0000	,0000	,00	,00
	High	166	,0000	,00000	,00000	,0000	,0000	,00	,00
	Total	306	,0000	,00000	,00000	,0000	,0000	,00	,00
Word_of_Mouth	Low	35	,0000	,00000	,00000	,0000	,0000	,00	,00
	Medium	105	,0095	,09759	,00952	-,0094	,0284	,00	1,00
	High	166	,0542	,22713	,01763	,0194	,0890	,00	1,00
	Total	306	,0327	,17809	,01018	,0126	,0527	,00	1,00
Commercials_TVRadioPrint	Low	35	,0286	,16903	,02857	-,0295	,0866	,00	1,00
	Medium	105	,0286	,16740	,01634	-,0038	,0610	,00	1,00
	High	166	,0241	,15381	,01194	,0005	,0477	,00	1,00
	Total	306	,0261	,15982	,00914	,0082	,0441	,00	1,00
Product_Label	Low	35	,0571	,23550	,03981	-,0238	,1380	,00	1,00
	Medium	105	,0571	,23323	,02276	,0120	,1023	,00	1,00
	High	166	,0181	,13362	,01037	-,0024	,0385	,00	1,00
	Total	306	,0359	,18646	,01066	,0150	,0569	,00	1,00
No_MainSource	Low	35	,2000	,40584	,06860	,0606	,3394	,00	1,00
	Medium	105	,2190	,41558	,04056	,1386	,2995	,00	1,00
	High	166	,3313	,47211	,03664	,2590	,4037	,00	1,00
	Total	306	,2778	,44864	,02565	,2273	,3282	,00	1,00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
News_Media	Between Groups	5,566	2	2,783	13,656	<,001
	Within Groups	61,754	303	,204		
	Total	67,320	305			
SocialMedia	Between Groups	,533	2	,266	3,139	,045
	Within Groups	25,719	303	,085		
	Total	26,252	305			
NGOs	Between Groups	,540	2	,270	3,395	,035
	Within Groups	24,078	303	,079		
	Total	24,618	305			
Brand_Webpage	Between Groups	2,086	2	1,043	10,647	<,001
	Within Groups	29,679	303	,098		
	Total	31,765	305			
Personal_Blogs	Between Groups	,000	2	,000	.	.
	Within Groups	,000	303	,000		
	Total	,000	305			
Word_of_Mouth	Between Groups	,171	2	,085	2,721	,067
	Within Groups	9,503	303	,031		
	Total	9,673	305			
Commercials_TVRadioPrint	Between Groups	,002	2	,001	,030	,971
	Within Groups	7,789	303	,026		
	Total	7,791	305			
Product_Label	Between Groups	,116	2	,058	1,675	,189
	Within Groups	10,489	303	,035		
	Total	10,605	305			
No_MainSource	Between Groups	1,050	2	,525	2,636	,073
	Within Groups	60,339	303	,199		
	Total	61,389	305			

ANOVA 3:

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
News_Media	Yes	122	,1311	,33895	,03069	,0704	,1919	,00	1,00
	No	184	,4565	,49947	,03682	,3839	,5292	,00	1,00
	Total	306	,3268	,46981	,02686	,2739	,3796	,00	1,00
SocialMedia	Yes	122	,0410	,19907	,01802	,0053	,0767	,00	1,00
	No	184	,1304	,33770	,02490	,0813	,1796	,00	1,00
	Total	306	,0948	,29338	,01677	,0618	,1278	,00	1,00
NGOs	Yes	122	,1148	,32004	,02897	,0574	,1721	,00	1,00
	No	184	,0707	,25694	,01894	,0333	,1080	,00	1,00
	Total	306	,0882	,28410	,01624	,0563	,1202	,00	1,00
Brand_Webpage	Yes	122	,2869	,45417	,04112	,2055	,3683	,00	1,00
	No	184	,0054	,07372	,00543	-,0053	,0162	,00	1,00
	Total	306	,1176	,32272	,01845	,0813	,1539	,00	1,00
Personal_Blogs	Yes	122	,0000	,00000	,00000	,0000	,0000	,00	,00
	No	184	,0000	,00000	,00000	,0000	,0000	,00	,00
	Total	306	,0000	,00000	,00000	,0000	,0000	,00	,00
Word_of_Mouth	Yes	122	,0410	,19907	,01802	,0053	,0767	,00	1,00
	No	184	,0272	,16303	,01202	,0035	,0509	,00	1,00
	Total	306	,0327	,17809	,01018	,0126	,0527	,00	1,00
Commercials_TVRadioPrint	Yes	122	,0246	,15551	,01408	-,0033	,0525	,00	1,00
	No	184	,0272	,16303	,01202	,0035	,0509	,00	1,00
	Total	306	,0261	,15982	,00914	,0082	,0441	,00	1,00
Product_Label	Yes	122	,0000	,00000	,00000	,0000	,0000	,00	,00
	No	184	,0598	,23773	,01753	,0252	,0944	,00	1,00
	Total	306	,0359	,18646	,01066	,0150	,0569	,00	1,00
No_MainSource	Yes	122	,3607	,48217	,04365	,2742	,4471	,00	1,00
	No	184	,2228	,41728	,03076	,1621	,2835	,00	1,00
	Total	306	,2778	,44864	,02565	,2273	,3282	,00	1,00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
News_Media	Between Groups	7,766	1	7,766	39,645	<,001
	Within Groups	59,554	304	,196		
	Total	67,320	305			
SocialMedia	Between Groups	,587	1	,587	6,953	,009
	Within Groups	25,665	304	,084		
	Total	26,252	305			
NGOs	Between Groups	,143	1	,143	1,772	,184
	Within Groups	24,475	304	,081		
	Total	24,618	305			
Brand_Webpage	Between Groups	5,811	1	5,811	68,067	<,001
	Within Groups	25,954	304	,085		
	Total	31,765	305			
Personal_Blogs	Between Groups	,000	1	,000	.	.
	Within Groups	,000	304	,000		
	Total	,000	305			
Word_of_Mouth	Between Groups	,014	1	,014	,440	,507
	Within Groups	9,659	304	,032		
	Total	9,673	305			
Commercials_TVRadioPrint	Between Groups	,000	1	,000	,019	,890
	Within Groups	7,790	304	,026		
	Total	7,791	305			
Product_Label	Between Groups	,262	1	,262	7,707	,006
	Within Groups	10,342	304	,034		
	Total	10,605	305			
No_MainSource	Between Groups	1,394	1	1,394	7,062	,008
	Within Groups	59,995	304	,197		
	Total	61,389	305			

Multinomial Logistic Regression:

Case Processing Summary

		N	Marginal Percentage
Information_Source	Nyhetsmedier	100	32,7%
	Sosiale Medier	29	9,5%
	Interesseorganisasjoner (NGO)	27	8,8%
	Produsentens hjemmeside	36	11,8%
	Venner / Familie	10	3,3%
	Reklame (TV, radio, trykk)	8	2,6%
	I butikk (på produkt)	11	3,6%
	Har ingen hovedkilde knyttet til dyrevelferd	85	27,8%
Farmer	Yes	122	39,9%
	No	184	60,1%
Gen	Gen Z	43	14,1%
	Millennials	79	25,8%
	Gen X	124	40,5%
	Baby Boomers	60	19,6%
Valid		306	100,0%
Missing		12	
Total		318	
Subpopulation		7	

Model Fitting Information

	Model Fitting Criteria			Likelihood Ratio Tests		
Model	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	277,207	303,272	263,207			
Final	190,595	320,920	120,595	142,612	28	<,001

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	9,391	14	,805
Deviance	9,316	14	,810

Pseudo R-Square

Cox and Snell	,373
Nagelkerke	,384
McFadden	,134

Likelihood Ratio Tests

	Model Fitting Criteria			Likelihood Ratio Tests		
Effect	AIC of Reduced Model	BIC of Reduced Model	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	190,595	320,920	120,595[a]	,000	0	.
Farmer	259,045	363,305	203,045	82,450	7	<,001
Gen	182,955	235,085	154,955	34,360	21	,033

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Parameter Estimates

Information_Source[a]		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B) Lower Bound	Upper Bound
Nyhetsmedier	Intercept	,699	,461	2,302	1	,129			
	[Farmer=1]	-1,698	,396	18,414	1	<,001	,183	,084	,398
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
	[Gen=1,00]	,582	,684	,722	1	,395	1,789	,468	6,838
	[Gen=2,00]	-,271	,538	,254	1	,614	,763	,266	2,189
	[Gen=3,00]	,018	,460	,002	1	,969	1,018	,413	2,509
	[Gen=4,00]	0[b]	.	.	0	.	.	.	.
Sosiale Medier	Intercept	-1,877	,894	4,405	1	,036			
	[Farmer=1]	-,591	,652	,821	1	,365	,554	,154	1,988
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
	[Gen=1,00]	2,665	1,044	6,514	1	,011	14,368	1,856	111,219
	[Gen=2,00]	1,432	,924	2,399	1	,121	4,185	,684	25,615
	[Gen=3,00]	,080	,908	,008	1	,930	1,083	,183	6,422
	[Gen=4,00]	0[b]	.	.	0	.	.	.	.
Interesseorganisasjoner (NGO)	Intercept	-1,108	,625	3,137	1	,077			
	[Farmer=1]	,166	,541	,094	1	,759	1,181	,409	3,412
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
	[Gen=1,00]	,597	,961	,385	1	,535	1,816	,276	11,955
	[Gen=2,00]	,071	,695	,010	1	,919	1,073	,275	4,188
	[Gen=3,00]	-,479	,576	,693	1	,405	,619	,200	1,914
	[Gen=4,00]	0[b]	.	.	0	.	.	.	.
Produsentens hjemmeside	Intercept	-4,273	1,128	14,362	1	<,001			
	[Farmer=1]	3,692	1,069	11,917	1	<,001	40,122	4,932	326,367
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
	[Gen=1,00]	-15,168	7446,718	,000	1	,998	2,587E-7	,000	.[c]
	[Gen=2,00]	1,026	,663	2,392	1	,122	2,790	,760	10,237
	[Gen=3,00]	,411	,489	,704	1	,401	1,508	,578	3,932
	[Gen=4,00]	0[b]	.	.	0	.	.	.	.
Venner / Familie	Intercept	-1,769	,884	4,009	1	,045			
	[Farmer=1]	-,212	,770	,076	1	,783	,809	,179	3,655
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
	[Gen=1,00]	-18,952	,000		1	.	5,877E-9	5,877E-9	5,877E-9
	[Gen=2,00]	-,034	1,003	,001	1	,973	,966	,135	6,900
	[Gen=3,00]	-,422	,846	,249	1	,618	,656	,125	3,443
	[Gen=4,00]	0[b]	.	.	0	.	.	.	.
Reklame (TV, radio, trykk)	Intercept	-2,682	1,248	4,622	1	,032			
	[Farmer=1]	,380	1,131	,113	1	,737	1,462	,159	13,414
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
	[Gen=1,00]	2,171	1,446	2,256	1	,133	8,769	,516	149,078
	[Gen=2,00]	,335	1,253	,072	1	,789	1,398	,120	16,307
	[Gen=3,00]	-1,234	1,285	,922	1	,337	,291	,023	3,615
	[Gen=4,00]	0[b]	.	.	0	.	.	.	.
I butikk (på produkt)	Intercept	-1,163	1,083	1,153	1	,283			
	[Farmer=1]	-19,798	6848,199	,000	1	,998	2,523E-9	,000	.[c]
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
	[Gen=1,00]	,653	1,306	,250	1	,617	1,921	,148	24,859
	[Gen=2,00]	,255	1,177	,047	1	,829	1,290	,128	12,964
	[Gen=3,00]	-1,722	1,478	1,357	1	,244	,179	,010	3,239
	[Gen=4,00]	0[b]	.	.	0	.	.	.	.

a. The reference category is: Har ingen hovedkilde knyttet til dyrevelferd.

b. This parameter is set to zero because it is redundant.

c. Floating point overflow occurred while computing this statistic. Its value is therefore set to system missing.

Case Processing Summary

		N	Marginal Percentage
Q7_Extra1	Sporing på nett eller med QR-kode	38	12,4%
	Dyrevelferdsmerke (nøytral)	74	24,2%
	Vanlig kokt skinke til dagens pris	54	17,6%
	Smilefjesskala (Mattilsynet)	32	10,5%
	Bedre plass i grisebingen (enn norsk standard)	14	4,6%
	Merket som 100% norsk kjøttråvare	94	30,7%
Farmer	Yes	122	39,9%
	No	184	60,1%
Valid		306	100,0%
Missing		12	
Total		318	
Subpopulation		84[a]	

a. The dependent variable has only one value observed in 28 (33,3%) subpopulations.

Model Fitting Information

	Model Fitting Criteria			Likelihood Ratio Tests		
Model	AIC	BIC	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	655,508	674,125	645,508			
Final	576,531	632,385	546,531	98,977	10	<,001

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	421,026	405	,281
Deviance	362,900	405	,935

Pseudo R-Square

Cox and Snell	,276
Nagelkerke	,287
McFadden	,098

Likelihood Ratio Tests

	Model Fitting Criteria			Likelihood Ratio Tests		
Effect	AIC of Reduced Model	BIC of Reduced Model	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	576,531	632,385	546,531[a]	,000	0	.
Age	574,559	611,795	554,559	8,028	5	,155
Farmer	638,833	676,068	618,833	72,302	5	<,001

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Parameter Estimates

Q7_Extra1[a]		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B) Lower Bound	Upper Bound
Sporing på nett eller med QR-kode	Intercept	-,768	,767	1,002	1	,317			
	Age	,030	,018	2,749	1	,097	1,030	,995	1,068
	[Farmer=1]	-3,108	,562	30,561	1	<,001	,045	,015	,134
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
Dyrevelferdsmerke (nøytral)	Intercept	,478	,642	,555	1	,456			
	Age	,017	,016	1,208	1	,272	1,017	,987	1,049
	[Farmer=1]	-3,229	,484	44,444	1	<,001	,040	,015	,102
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
Vanlig kokt skinke til dagens pris	Intercept	1,103	,656	2,829	1	,093			
	Age	-,012	,016	,537	1	,464	,988	,957	1,020
	[Farmer=1]	-2,062	,478	18,591	1	<,001	,127	,050	,325
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
Smilefjesskala (Mattilsynet)	Intercept	,514	,756	,462	1	,497			
	Age	-,010	,019	,290	1	,590	,990	,953	1,028
	[Farmer=1]	-2,073	,565	13,484	1	<,001	,126	,042	,380
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
Bedre plass i grisebingen (enn norsk standard)	Intercept	-,754	1,023	,543	1	,461			
	Age	,002	,026	,004	1	,948	1,002	,953	1,053
	[Farmer=1]	-2,252	,770	8,552	1	,003	,105	,023	,476
	[Farmer=2]	0[b]	.	.	0	.	.	.	.

a. The reference category is: Merket som 100% norsk kjøttråvare.
b. This parameter is set to zero because it is redundant.

Appendix N - *Packaging Information Preference, Sustainability:*

Multinomial Logistic Regression:

Case Processing Summary

		N	Marginal Percentage
Q8_Extra2	30% redusert klimautslipp	62	20,3%
	Vanlig kokt skinke til dagens pris	49	16,0%
	Dyrevelferdsmerke (nøytralt)	55	18,0%
	15% mer betalt til bonden	33	10,8%
	Dyrene får 100% norsk fôr	16	5,2%
	Merket som "100% norsk"	91	29,7%
Farmer	Yes	122	39,9%
	No	184	60,1%
Valid		306	100,0%
Missing		12	
Total		318	
Subpopulation		84[a]	

a. The dependent variable has only one value observed in 25 (29,8%) subpopulations.

Model Fitting Information

Model	Model Fitting Criteria AIC	BIC	-2 Log Likelihood	Likelihood Ratio Tests Chi-Square	df	Sig.
Intercept Only	679,656	698,274	669,656			
Final	552,094	607,948	522,094	147,562	10	<,001

Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	544,989	405	<,001
Deviance	345,360	405	,986

Pseudo R-Square

Cox and Snell	,383
Nagelkerke	,396
McFadden	,143

Likelihood Ratio Tests

Effect	Model Fitting Criteria			Likelihood Ratio Tests		
	AIC of Reduced Model	BIC of Reduced Model	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	552,094	607,948	522,094[a]	,000	0	.
Age	547,807	585,043	527,807	5,712	5	,335
Farmer	653,035	690,270	633,035	110,940	5	<,001

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Parameter Estimates

Q8_Extra2[a]		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp (B)	
								Lower Bound	Upper Bound
30% redusert klimautslipp	Intercept	,527	,662	,634	1	,426			
	Age	,005	,016	,101	1	,750	1,005	,974	1,037
	[Farmer=1]	-24,017	,000	.	1	.	3,711E-11	3,711E-11	3,711E-11
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
Vanlig kokt skinke til dagens pris	Intercept	1,008	,659	2,341	1	,126			
	Age	-,022	,016	1,827	1	,176	,978	,947	1,010
	[Farmer=1]	-1,369	,470	8,476	1	,004	,254	,101	,639
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
Dyrevelferdsmerke (nøytralt)	Intercept	,913	,652	1,961	1	,161			
	Age	-,013	,016	,640	1	,424	,987	,957	1,019
	[Farmer=1]	-2,136	,495	18,623	1	<,001	,118	,045	,312
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
15% mer betalt til bonden	Intercept	-,201	,778	,067	1	,796			
	Age	-,030	,019	2,649	1	,104	,970	,935	1,006
	[Farmer=1]	,929	,563	2,722	1	,099	2,531	,840	7,625
	[Farmer=2]	0[b]	.	.	0	.	.	.	.
Dyrene får 100% norsk fôr	Intercept	-2,207	1,191	3,435	1	,064			
	Age	-,013	,025	,273	1	,601	,987	,939	1,037
	[Farmer=1]	1,448	,890	2,646	1	,104	4,256	,743	24,379
	[Farmer=2]	0[b]	.	.	0	.	.	.	.

a. The reference category is: Merket som "100% norsk".

b. This parameter is set to zero because it is redundant.