Final Research Report
What is Environmentally Trustworthy About your Label?

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Introduction

In today’s society, many food labels are available on meat and seafood products to increase the competition of product information, allowing consumers to interpret a label as they so choose (Sirieix, Delanchy, Remaud & Zepada, 2011). It has been shown that there is a variety of consumer perceptions based on environmentally sustainable labels compared to other labels. Retailers and consumers are concerned with environmentally sustainable products and have created a variety of labels, such as organic or free-range, in order to address these concerns, in a simplified and accessible way. Based on consumer’s reactions to claims made on these labels, a number of initiatives have begun communicating environmental sustainability information about foods to consumers (Grunet, Hieke & Wills, 2014). To better understand these consumer claims, research is needed to determine a consumer’s understanding of environmentally sustainable labels on meat and seafood products and the possible misconception of these labels. It is important to note the familiarity and trust that a consumer may have with a label associated with a brand, enhancing the value of a product (Sirieix, et al., 2011).

A sustainable food system is an integrative network that works to enhance a community’s environment, economic standing and social well-being (Pothukuchi & Kaufman, 2000). Major components of a sustainable food system include energy efficiency, resilience to change, increased soil quality, and preserving biodiversity, which results in substantial environmental benefits (Pothukuchi, et al., 2001). A larger portion of consumers are more interested in sustainability in recent years, leading to the question of credibility of a label and/or certification. The trust, acceptance and knowledge of a consumer influences a label design, leading to these different understandings of what sustainability entails (consumer preferences for sustainably). While this combination of labels may enhance a meat product, they can also take away from a label’s information regarding sustainability (Sirieix, et al., 2011). Furthermore, labels can be interpreted in a variety of ways and are not always credible.

To better understand what a trusted piece of information that people look for on a meat/seafood label, data was collected to further identify the public’s perspective on environmental sustainability. This overall research objective was achieved through determining what people look for in a label to deem a product “environmentally sustainable”, what marketing techniques are being used to influence a consumer's purchase and identifying what is “missing” on a label in order to display the disconnect between what information the general population wants on a sustainable meat/seafood label compared to what they are actually receiving. It was concluded that most participants took environmental sustainability into consideration, however it was not the most important factor, giving an indication of the “level” of importance that consumers place on environmental sustainability. While government labels were found to be the most trusted piece of information, participants were not able to easily identify these labels. In addition, many participants had a lack of knowledge when it came to identify environmentally
sustainable labels, indicating that new marketing techniques need to be introduce to provide consumers with the information that they are seeking.

**Context**

The concept of environmentally sustainable food labeling has become increasingly more relevant in the eyes of the consumer (Grunert et al., 2014). There have been many studies regarding consumer’s trust in relation to food labels, as well as consumer’s understanding of sustainability (Castaldo et al., 2009; Gellynck et al., 2006; Goossens et al., 2017; Grunert et al., 2014; Grunert, 2011; Guttierrez & Thornton, 2014; Siriex et al., 2012; Sporlede et al., 2014; Starobin & Weinthal, 2010; Tonkin et al., 2016; Vermeir & Verbeke, 2005), but there has not been as much analysis into which sustainable labels consumers trust more, and what their reasoning is for their trust in these labels (Siriex et al., 2012). Most of the literature focuses on the consumer’s choices and what they understand of sustainability but one overarching, unanswered question appears to be, what is a credible source of information and why do consumers trust it (Siriex et al., 2012).

Several sources cited the need for labels to be easier to comprehend for consumers, because the consumers found the labels too complicated to translate into actual purchases (Gellynck et al., 2006; Grunert et al., 2014; Grunert, 2011; Siriex et al., 2012; Tonkin et al., 2016). It has been found that some consumers need more information available to them to be able to make purchasing decisions in relation to sustainability (Goossens et al., 2017). In fact, Gellynck et al. found that consumers would prefer that other stakeholders in the food supply chain such as retailers and the government have certification traceability information so that the consumers do not have to interpret the labels on their own (2006).

Additionally, the actual use of sustainable labels is often a major topic in the literature, but can be explained by various factors. For example, if it is unclear about who is producing the labels, this can translate into consumers not trusting the label because they are unable to ensure if it is credible or not (Grunert et al., 2014). This means that even if the consumer understands the label and it is readily available to them, they might not purchase it because they cannot trust it. Furthermore, as Tonkin et al. (2016) found, labels can actually have an impact on how consumers trust the labellers, as opposed to other research that has been conducted that suggests otherwise (Castaldo et al., 2009; Grunert et al, 2014). This means that inaccurate or fraudulent labeling, for example, can actually lead to an erosion of trust in the manufacturer leading to a decline of purchases in that particular label (Tonkin et al, 2016).

Furthermore, the current literature contributes little discussion about the environmental sustainability labels on meat products, even though there is research into the environmental sustainability of seafood. Current research discusses the environmental labels associated with
seafood and how these labels have contributed to consumers understanding of seafood environmental issues (Gutierrez & Thornton, 2014). There has also been research into consumer’s trust in the traceability of meat; meaning how concerned consumers are with the origin and production methods of meat products (Gellynck et al., 2006). This can potentially indicate how concerned consumers are with the locality and the environmental aspects of meat production, yet, there is limited literature on the environmental sustainability labels on such products (Gellynck et al, 2006). This study will attempt to address the lack of research in this area.

In addition, the majority of the current research is conducted in European countries, Australia or the United States (Castaldo et al., 2009; Gellynck et al., 2006; Goossens et al., 2017; Grunert et al., 2014; Grunert, 2011; Gutierrez & Thornton, 2014; Siriex et al., 2012; Sporleder et al., 2014; Starobin & Weinthal, 2010; Tonkin et al., 2016; Vermeir & Verbeke, 2005). While this can be applicable to Canadian consumers as these are considered developed and western countries like Canada, there is limited research on the topic of environmental sustainable labels and consumers’ trust of them actually in Canada.

In summary, previous research highlights the importance of consumer trust in sustainable food labels and addresses the confusion often found when looking at product labels and what their understanding of sustainability labels is like, but it does not address the underlying question of what sources do they trust the most and why these sources are trustworthy to them. This study will attempt to add to the current research by addressing the questions of consumers’ trust in environmental sustainability labeling in a Canadian city.

Methodology

Proposed Research:

This research will focus on food labels and the trust and knowledge the average consumer has when purchasing food products in grocery stores. The purpose of this research is to answer “what is a trusted piece of information about environmental sustainability that consumers look for on a label?” For the purpose of this study, “sustainability” will be defined as a product that allows a community’s environment, economy and social well being to last indefinitely. Major components of meat and seafood environmental sustainability include energy, water consumption, waste production, over-fishing, etc. The research methods in this study are partially based off of the study conducted by Grunert et al. in 2014. This conceptual framework is used because they asked many questions similar to those this study is attempting to answer as well. This study, in following suit with Grunert et al, and based on the sustainability definition provided, will also ask participants to rank certain terms or labels in terms of understanding and importance.
Data Collection Process:

Many people share different opinions on what sustainability is and what it incorporates. Labelling on meat can be put into categories such as Organic, GMOs, Natural, etc. Using these categories, the survey questions what consumers value the most in their product and how/why one label is trusted over another. Data collection was conducted through surveys because the research is more focused on factual information and can target a larger audience. Surveys also provide an extensive research strategy allowing for a large amount of data in a timely manner while targeting a representative sample. Pilot testing was conducted prior to surveying in order to receive feedback on the questions and ensure the consumers will understand what is being asked. After the pilot testing, minor modifications were made to word choices, to ensure participants would understand. Taking this into account, the survey incorporated multiple choice, short answer, open-ended, close-ended and rank order questions. The rank order and multiple-choice questions are used to gain a quantitative overview of consumer opinions. The closed-ended questions were used to allow participants to answer questions with a selected focus on certain categories and the open-ended questions allowed for participants to answer with no limitations.

Three different grocery stores, Metro, Wal-Mart and Zehrs, were studied at different times and provided a probability sampling representative of the general population. These stores were chosen based on availability of meat and seafood products sold as well as them being chain companies, which allows for the research results to be easily transferred to cities outside of Guelph. In addition, this study focused on stores the general population used, excluding farmer’s markets, food banks, convenience stores, etc. Two separate surveying times at each location, mid-day and at night, allowed for a broader sample pool. Standing at the entrance of each store, every third person was asked to complete a survey, until saturation was found, adding up to a total of 62 surveys. Each store had an average sample size of 10 per visit. Sample screening was limited to asking whether the consumer eats/purchases meat and if so, they were able to participate in the survey and research. The exclusion of vegetarians and vegans as well as lower income purchasers who do not purchase products with the labels being studied must be noted. The data will then be compared in order to obtain overall opinions of the public.

Data analysis

To meet research objectives, thematic content analysis and descriptive coding was conducted in order to find common ideas that were then categorized into subsections of concern, knowledge, recognition, and trust. This data reduction helped understand the large amount of data received in a more organized way. Essentially, grounded theory was used in order to form theories based on the codes identified. When looking at each survey question, connections between multiple questions were used in order to elaborate and understand their reasoning behind one answer. For instance, a correlation between those who ranked environmental sustainability as their top three in question 2 of the survey (see appendix A) was made with number 7, to see if they care about the environment, who do they trust the most with their labels.
Once all the correlations had been made and data represented, key findings were pulled, in order to answer the research question and its objectives.

**Contributions to the Advancement of Knowledge**

The purpose of this qualitative study is to identify what influences consumers to purchase one product over another, what impact environmental sustainability labels have on their purchases and why they trust said labels. This research will contribute to companies in their marketing practices by allowing them to understand what consumers look at and how they can change their label in order to offer a better overall product. This praxis has a goal of creating a better connection between sustainable knowledge and what the consumers want on their label. Contrary to knowledge for companies, consumers will also gain insight on what is on labels and how to critically analyze each part. Furthermore, this study will address Farm and Food Care’s research interest, being what do consumers consider trustworthy regarding their food. This study can be transferable to other food products that contain labels.

**Findings**

**Knowledge of Environmental Sustainability**

In the final question, participants were asked to provide some indication of what they would like to see on their meat/seafood labels in regards to environmental sustainability. The responses were evident in that the participants knowledge of environmental sustainability is quite varied. Some participants gave very insightful answers to what they would like to add, such as the origin of production and carbon footprint of the product. In contrast, many answers were not related to the environment at all as responses included answers such as the diet of the animal and lack of child labour. This showed a lack of understanding that consumers have regarding the components of environmental sustainability.

**Recognition of Labels**

The study found that the two most recognized labels are as follows: Foodland Ontario with 67% of participants saying they recognized the label, and Natural Selections at 58%. Please refer to Appendix B for a more detailed breakdown of recognition of each label. Participants recognized Foodland Ontario because it is a local organization and it is well-known/marketed in the area. Natural Selections was also well recognized but for different reasons. This label is not in fact a certification of natural food, but is a company brand-name designed for marketing purposes, which skews consumers’ perceptions because they recognize it, but don’t recognize it as not an environmentally sustainable label. These findings demonstrate that key words, such as natural and organic are important and very influential on a label (refer to question 5 in Appendix A).
Consumer Concern for Environmental Sustainability

Through the findings, it was determined that on average, environmental sustainability was the third most important factor when purchasing meat or seafood products, following closely behind price at number one and healthiness at number two. 48% of participants said they considered environmental sustainability when purchasing meat products however, price and health still remain of greater importance (please refer to Appendix C). This shows that participants have some regard for the environment, but do not hold it as their first priority when purchasing a product. In addition, 79% of participants said that they try to buy meat/seafood products that include terms such as “organic” or “natural” on the label, indicating a higher level of concern for products that may be considered environmentally sustainable, but also have other aspects such as health, that influence people’s desire to purchase them.

Consumer Trust in Labels

Participants placed the most trust in the following labels: Foodland Ontario, Canada Organic and 100% Canadian Meat. A supplementary page of labels was provided to all participants and they were asked to choose which of the labels that they placed the most trust in. A secondary question was asked to participants, identifying which source of information they trust the most and why they trust this source of information. Government labels were found to be the most trustworthy source of information on meat/seafood labels based on the participant responses (please refer to Appendix D). The most common reason why participants trusted these sources of information was that they know the organization (the government) behind the certification well.

Discussion

Overall, this study found that the majority of consumers trust government sources the most because they know the government as a reliable source of information and recognize the logos (please refer to Appendix D). It was also found that consumers are concerned about environmental sustainability and issues related to it, but they are more concerned about the price and healthiness of their meat and seafood products that environmental sustainability is pushed to the “side” in favour of these other factors (please refer to Appendix C). Furthermore, while consumers may care about environmental sustainability, this study also found that many consumers find it difficult to not only identify environmental issues regarding meat and seafood products, but also to recognize environmentally sustainable labels (please refer to Appendix B).

Since the majority of consumers primarily trusts the government over any other commonly found source of information on labels, it is important to make government labels much more clearly identifiable. This is echoed by the literature, which states that people find it difficult to find and understand labels on meat products, meaning that they are less likely to purchase these products (Gellynyck et al., 2006; Grunert et al., 2014; Grunert, 2011; Siriex et al.,
One way to attain this goal would be to increase the amount of funding put into advertising government certifications that recognize environmental sustainability, so that consumers’ can become of aware of these certifications. Another more obvious approach to resolve this problem would be to put identifiable markers on government logos (i.e; writing “Government of Canada”, creating an official seal for the government, .etc), that way people are able to distinguish governmentally instituted certifications from those that are non-governmental organizations labels. Drawing from the literature, a suggestions was for the government to create its own certification traceability information, so that they may then distribute in a way that will educate consumers (Gellynyck et al., 2006). Further, Foodland Ontario has been successful in gaining trust and recognition because of their promotion and advertising. Therefore, a recommendation for companies would be to advertise more labels outside of the grocery store.

In further comparison to the literature, some of the results were surprising, Grunert et al., found that people are less likely to trust a label if they are unsure about the producer of the label (2014). However, this study found that one of the most trusted labels was “100% Canadian Meat”, which does not have a credible background; some of the least trusted sources were the MSC label, which has a direct link on the label to a of third-party certified organization. Clearly, this study’s results diverged slightly from what was expected when considering this information. The results of this study also indicated that it is imperative to educate consumers about environmental sustainability, particularly in regards to the issues that surround meat and seafood products. It is clear that many do not fully comprehend these environmental issues, even though they seem to care and think that they understand the full “picture”. It is important to make labels clear that they are environmentally sustainable and to educate consumers through schools, community programs or advertising campaigns. This can ensure that consumers understand which aspects of a label are certified and support environmental sustainability practices. There should also be more funding directed towards reducing costs of environmentally sustainable products, because it was found that many participants would like to purchase more sustainable foods, but they are unable to or less likely because of the increased costs of these products. These findings are consistent with the literature.

Conclusion/Recommendations

The research discussed in this report aimed to demonstrate the diverse understandings of environmentally sustainable food labels. Overall, it was found that while environmental sustainability is a concern for most consumers, it is not the most influential factor when purchasing the product. In addition, the findings demonstrated the importance of key terms such as “organic, natural and sustainable” on a labels for the 62 participants. In fact, Natural Selections was the most recognized label, along with Foodland Ontario among those provided. This is likely largely due to the size of the wording and the ability for the participant to easily
identify the label. In order to make environmentally sustainable logo’s as recognizable as *Natural Selections*, it would be wise to make the logo more visible so that consumers do not have to search the product in order to determine if it is environmentally sustainable or not (please refer to the Supplementary Page in Appendix A). While government labels were found to be the most trusted source of information, it was not identifiable by a vast majority of participants. Taking this into consideration, more advertising of government certifications must be done in order to inform the general public on their appearance and significance. Alternatively, indicating on the logo itself that it was created by the government, would be a fool-proof method of letting the consumer know the standard of the certification. When asked, participants reported wanting to see more information about waste, energy and resources used in production, country of origin and manufacturers information, on meat and seafood labels. By adding new elements to labels such as “energy being used during production” or “waste produced while manufacturing”, labels will be able to take more of an educational approach in informing consumers of how their purchasing habits affect the environment.

Further research could be done to elaborate on the findings of this research as well as expand the research scope to all food products and labels. For instance, research on how people perceive labelling on meat or seafood products would allow researchers to discover what consumers’ understanding is of environmental sustainability. It would also be interesting to discover what participants think are the best ways to inform the public of environmentally sustainable labels. Furthermore, it could determine how marketing techniques promote non-environmentally sustainable products, so that it may be applied to other sectors. To receive more useful data, more pilot testing could have been completed before going out into the field and collecting surveys, this could have allowed prevented any confusion/misperception of the questions. Lack of attention to the wording of questions resulted in a few unusable surveys because participants had not answered the questions or answered them correctly. In order to apply the findings of this study, it is evident that Farm and Food Care needs to provide information regarding labelling or “buzzwords” for their consumers. Moving forward, making buzzwords larger on labels is a simple solution to attracting more consumers to their products. In addition, advertising labels outside of grocery stores is a way to create more awareness, this could be easily implemented on Farm and Food Care’s website. These simple tasks can give consumers the knowledge to make environmentally sustainable purchases in the future.
Works Cited


Appendices

Appendix A

Environmental Sustainability Labels on Meat & Seafood Products Survey

Environmental sustainability means that a community’s environment, economy and social well-being can last indefinitely. Major components of meat & seafood environmental sustainability include energy efficiency, water consumption, waste production, over-fishing, etc.

1. Using the supplementary page with images of labels, indicate which labels you are familiar with by writing the corresponding letter.

   --_________________________________
   ____________________________________________

2. Rank these factors in order of their importance to you when purchasing a meat or seafood product, with 1 being the most important factor and 6 being the least important. If other does not apply to you, please only rank the choices from 1-5.

   __ Healthiness
   __ Environmental sustainability
   __ Price
   __ Brand (i.e. company name such as Maple Leaf, Schneider’s, etc.)
   __ Religious preferences (e.g. Halal, Kosher)
   __ Other: - __________________________________

3. Do you purchase certain meat products over others out of concern for the environment?
   Yes           No
   a) If yes, what are your concerns (Such as local meat, organic (no chemicals), minimal harm to the ecosystem, etc)?

   __________________________________________________________
   __________________________________________________________

4. Which labels from the supplementary page, in your opinion, indicates a meat product is more environmentally sustainable?

   __________________________________________________________
   __________________________________________________________

5. Are you more willing to buy a meat product that includes terms such as “natural”, “sustainable practices” or “organic” on the label?
   Yes           No
6. Do you tend to purchase meat or seafood products that have a third party and/or government certification on the label that suggests it is an environmentally sustainable product?
   Yes               No

7. When considering a meat or seafood product label, what do you consider a trusted source of that label? Please circle your top trusted source.
   i. Government-created label
   ii. A label created by a private company or brand
   iii. Third-party (Non-Governmental Organization) certification
   iv. Other:

8. Given the choices of labels on the supplementary page, if you can only pick one, which label do you trust the most? Please indicate the letter that corresponds to the picture on the supplementary page.

  a) What is your reason for trusting this label? Please rank each reason from 1-5, with 1 being the most important and 5 being the least important.
     _ Know the organization behind the label well
     _ I have heard good things about the organization behind the label
     _ The label is visually appealing
     _ The label provides the information I am looking for (i.e. company contact information).
     _ Other: __________________________________________

9. Is there anything you would like to add on your meat or seafood products labels? (For example, would you like to know the waste produced in the production of your meat and seafood products, the energy consumed when producing them, etc.) If yes, please provide details.
   Yes               No

____________________________________________________________________________
____________________________________________________________________________
Appendix B

Participant’s Logo Recognition

Figure 1. The chart above represents the percentage of people that recognize each of the individual logos provided on the supplementary page.
Figure 2. The histogram above represents the number of participants that ranked health as their number one factor when purchasing a meat/seafood product.
Figure 3. The histogram above represents the number of participants that ranked price as their number one factor when purchasing a meat/seafood product.
**Figure 4.** The histogram above represents the number of participants that ranked environmental sustainability as their number one factor when purchasing a meat/seafood product.
Figure 5. The chart above represents the percentage of participants that trust the various sources of information, with the government ranking number one.