High Involvement and Ethical Consumption: A Study of the Environmentally Certified Home Purchase Decision

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Abstract: Sustainable and energy efficient (SEE) attributes in the housing market have become a focus in Canada. Similarly, understanding the consumer’s decision-making process of this high-involvement ethical product has become a burgeoning area for researchers. This study describes the development of the subject, highlighting the nature of the ethical decision-making process and how it relates to this known intention–behaviour gap. An observation, followed by two studies consisting of in-depth interviews with real estate agents and sales representatives ($n=15$) and home purchasers/consumers ($n=15$), were conducted. Transcriptions were analysed qualitatively with NVivo Pro 12 software (NVivo Pro 12, QSR International Pty Ltd, Melbourne, Australia). Inductive thematic analysis revealed two main driving themes: information and trust in seller/realtor. Attribute investment return uncertainty was identified as a theme that affects the strength of the relationship between purchase intention and behaviour, whereas the trust in seller/realtor speaks to how and why this effect occurs. The findings present relationships among the driving factors that were identified by realtors and consumers in the SEE housing market, as well as barriers (investment return uncertainty) that prevent consumers from purchasing high-involvement ethical products.

Keywords: sustainable; energy efficient; high involvement; ethical consumption; decision making; home purchase

1. Introduction

As more ethical choices enter consumer consciousness, understanding how those choices are made has become an important focus within consumer research. Most of the existing research on ethical consumption deals with low-involvement products. Given the importance of advancing sustainable consumption and the acknowledgement that low- and high-involvement consumption processes differ [1], understanding high-involvement ethical consumption is of key importance. We address this topic through a qualitative study of the consumption of sustainable and energy efficient (hereafter SEE) housing.

Consumers’ positive attitudes toward ethical products are known as ethical consumerism [2] and their buying behaviours are identified as ethical or conscious consumption [3]. Conscious consumers are considered to be a valuable group that exhibits a complex mix of behaviours. They prefer to purchase products with socially responsible attributes and consider the ethical aspects of products when making purchasing decisions [4,5]. A considerable amount of research into understanding ethical shopping behaviour has focused on products with low financial and social risk, such as running shoes [6], fair-trade coffee [7,8], and locally sourced produce [9,10]. Common throughout this literature is the notion of an attitude–behaviour gap [11–13]. Research questions tend to focus...
on ethical influences that result in buying behaviour [14,15]. However, few studies have examined high-involvement ethical products which inherently carry greater financial and social risk.

Consumption behaviour is not only driven by personal factors [16], but also contextual factors [17]. These factors sometimes act as barriers that keep the intention–behaviour gap from closing. Scant attention has been given to researching the contextual barriers that occur when the product is of high involvement, such as a home purchase. The real estate literature often explores the decision-making influences through the power relationship between the buyer and the seller. Within the literature, power has been defined as “the ability of an actor to influence another to act in the manner that they would not have otherwise” [18]. Through this power relationship, real estate agents and sales representatives (hereafter agents) are highly influential in the home purchasing process. Homebuyers who acquire their house through an agent purchase not only a house but also the services of the agent, thereby consuming a bundled good [19]. Recent purchasing research has found that the origins of power in buyer–seller relationships have been explored too narrowly and that power is instead part of the same broad, pluralistic construct [20]. This research provides new insights into the influences that buyer–agent relationships have in the SEE home purchasing process.

An “energy paradox” [21,22] is commonly used in the literature to explain the slow diffusion of energy-efficient technologies. Those technologies are not widely used despite their proven cost-effectiveness compared to currently existing technologies. Understanding this phenomenon is important as it is associated with potential market failures. Several elements impact the adoption process of new technologies, including lack of information, inconsistencies when decisions are made by parties who do not pay the bills (as often occurs with rental properties), and subsidized energy costs which artificially lower price [22]. The consumer’s willingness to pay is determined by the expected savings from energy expenditures and this determines the present discounted value [23]. Therefore, these elements influence the decision-making process as they impact the expected energy efficient savings.

Commonly found within the ethical consumption literature is the notion of an attitude–behaviour gap, which exists among consumers [24–27]. Past studies have examined this gap by looking at sustainable food [28,29] and sustainable holiday consumption [30]. This study examines the nature of the attitude–behaviour gap within the SEE home purchase process. It achieves this by examining the intention (aims, plans, goals) expressed and the behaviour (practices, activities, and performances) manifested by participants through physical events and activities they participate in, and how meaning is constructed through these experiences. The aim of this research is to identify forces that impact the ethical decision-making process and address existing barriers that perpetuate the attitude–behaviour gap when purchasing homes with SEE features. To achieve this aim, two research questions are set:

1. How is the sustainable and energy efficient home purchasing decision-making process experienced?
2. What factors influence the consumption of products with sustainable and energy efficient features?

This paper is structured as follows: Section 1.1 presents a brief history of SEE in Canada and discusses environmental implications, benefits, and need for advancement; Section 2 provides a rationale for the research questions and chosen methodology, and an overview of the analysis process; Section 3 presents the corresponding findings under the identified themes, trust in seller/realtor, information, and investment return uncertainty; Section 4 provides a detailed summary of the key points, revisiting the aim of the research, discusses theoretical and managerial implications, and provides suggestions for implementation; and, Section 5 presents the conclusions of the study.

1.1. Brief History of SEE in Canada

While the critical importance of environmental sensitivity is globally understood, what is less known is the substantial role real estate plays. Buildings are the largest energy-using sector, consuming 40 per cent of all energy [31] and over 70 per cent of electricity [32]. While improvements are being
made, building-related carbon dioxide emissions have continued to rise roughly one per cent annually since 2010, and globally more than four million people die each year from household air pollution [33].

In addition to environmental implications, the economics of real estate are also substantial [34]. Statistics Canada indicates that real estate-related activities account for over twelve per cent of Canada’s 2018 gross domestic product [35]. Residential real estate construction and existing home sales stimulate the economy through the creation of jobs, investment opportunities, and government revenue streams (through taxation and fees). As of 2018, eight per cent of Canada’s jobs were related to the construction sector [36].

The primary benefits of SEE homes are threefold. First, they provide the user of the space with decreased operating costs, as SEE homes consume fewer natural resources. Analysis of new home construction indicates that sustainable homes consume approximately 40 per cent less power and use between 50 and 182 L of potable water per capita daily, as compared to the Canadian average of 251 L [37]. This provides greater cash flow to the household now as well as protects the homeowner from future energy price increases. Second, SEE space is healthier than traditionally constructed space. This is primarily experienced through the use of healthier building materials, such as low- and no-VOC (volatile organic compounds) paints and flooring. Additionally, the indoor air quality in SEE space is often much better quality [38]. Lastly, SEE homes have a much smaller ecological footprint, emitting fewer greenhouse gases, conserving resources, and reducing many types of pollution. This final benefit accrues not only to the space user but also to the world as a whole.

The primary issues impeding wide acceptance of SEE homes are the management of the different cost structure and lack of education regarding the asset. Traditionally, homes are built, and then utility costs are shouldered on an ongoing basis. The technology that allows for significantly decreased utility expenses may have a greater upfront cost. This would frequently be experienced as a slightly higher mortgage payment (as the mortgage finances the cost to build the home) and a smaller ongoing utility payment. The total housing expenses would remain the same or be slightly less. However, financing institutions and other professionals associated with the home building and residential mortgage lender process must be educated on this model in order for it to be effective. Both this type of education, as well as education of the threefold benefits described above, are the areas that need the greatest attention for the advancement of SEE housing adoption.

The aim of this research is to examine the SEE home purchasing experience and to identify factors that influence the decision-making process. By examining this phenomenon, we can then determine the most effective way to communicate the SEE housing information between and amongst the consumers, realtors, home builders (and their subcontractors and suppliers), and the governments, so that SEE housing can grow from a niche market to a commercially viable and necessary part of the conversation.

2. Research Design

SEE homes are in the early stages of adoption within the Canadian market and since this is a new subcategory of home, we employed a phenomenological study method. This method is used to understand adoption decision-making processes [39]. A phenomenological approach is also best suited to understand a ‘lived experience’ [40]. The focus is on explored experiences, meanings, and interpretations of both the consumers and agents with the aim of understanding the challenges in SEE house purchasing. The intention–behaviour gap within this high-involvement domain is examined through exploratory observations and in-depth interviews.

An unstructured observation first occurred. Examining a phenomena in a non-intrusive manner allows a researcher to determine categories and classifications [41]. The study took place at a home builder’s main office during a training workshop on SEE homes where agents and SEE home builders were present. Four sales representatives of the builder were present as were eight real estate agents representing real estate brokerages within the Kitchener–Waterloo–Cambridge–Guelph (KWCG) area in Southern Ontario, Canada. The observation occurred over one day, was documented through written notes, and captured agent and home builder interactions, the sales presentation of SEE houses, and the
training workshop atmosphere. The observation aided in an initial understanding of the complexity of the topic, shaping the interview questions, attempting to account for the appeal of SEE housing features within the housing market, and identifying factors that influence the decision-making process.

Subsequently, in-depth interviews were implemented to further explore consumers’ and agents’ opinions and beliefs. Face-to-face interviews allow for more detailed information surrounding motivations, knowledge, and beliefs, and result in a higher percentage of completed answers [42]. This method was chosen as it allowed for more detailed information regarding the SEE decision-making process. The flexibility to clarify questions with this method was essential due to the exploratory nature of the study. The total number of interviews is determined once the answers given to the chosen questions reach a saturation level and the responses are common and no longer provide new insights [43]. Thus, the total number of interviews conducted for this study was fifteen agents (n = 15) and fifteen home purchasers/consumers (n = 15).

The interviews were conducted at building development showrooms and agent offices in the Kitchener–Waterloo–Cambridge–Guelph (KWCG) area of Southern Ontario, Canada. To better capture the adoption decision-making process, interviews were conducted with consumers and agents as they both experience the phenomena. This approach was effective in understanding the gap from the consumers’ point of view and the agent interviews provided insight into the ‘lived experience’. Although agents did not necessarily go through the same decision-making process, they provided valuable insight into the constructs that impact behaviour. The criteria used to determine agent participation included someone that held a real estate license and sold homes that offered a variety of features including sustainability and energy efficient options. The criteria used to determine the consumer participation included someone who had experience purchasing at least one home and expected to purchase another within their lifetime. Interviews were between 10.2 and 30.7 min in length and were electronically recorded, transcribed by a service, and then evaluated through a ‘funnel’ structure. The ‘funnel’ method creates a progressively focused theme over time [40].

Analysis

The research questions were addressed through empirical research designed to identify themes that impacted and constituted barriers to ethical consumption of high-involvement SEE homes. A thematic analysis was conducted to analyse the consumers’ and agents’ experiences, meanings, and interpretations of the decision-making process. This proved an effective approach to understanding the gap from the consumers’ point of view, and the agents’ interviews provided insight into the ‘lived experience’.

The observation was documented through written notes which described in detail the atmosphere, interactions, and behaviours of the people at the training workshop. Specifically, it captured agent and home builder interactions, the sales presentation of SEE houses, and the training workshop atmosphere. After conducting the observation, research questions were tested against the findings. Descriptors were applied to the data for the purpose of labelling and categorising. Information was then abstracted and compared to other identified concepts and themes. The observation, along with documentation on the SEE home subcategory and related research literature aided in the initial understanding of the complexity of the topic and was used to decide on the in-depth interview methodology and in shaping the research questions.

Interview transcripts were first all read through as a whole, then notes were made about the researcher’s first impressions, and finally, each transcript was carefully reviewed. A thematic analysis was conducted using NVivo software. While NVivo systematically managed textual data, it was then interpreted and compiled into discrete themes which were amplified with examples from the data text. Recurring themes around the SEE home purchasing process were identified as they related to the research questions. Words were labelled, as were phrases, sentences, or sections in the transcripts. These labels were about actions or described opinions that were relevant to the ethical decision-making process. They were decided based on the frequency of use. Information within the transcriptions that
was similar to the reviewed literature (theories or concepts) was also labelled, as was any additional relevant information. The final themes and subthemes will be discussed in the results section.

3. Results

In the in-depth interviews, participants described the factors that drove them to consume, as well as the barriers that prevented them from consuming, SEE home attributes. Several of the findings from the interviews, presented in Table 1, aided in answering the research questions. Two factors that influence SEE housing consumption were identified: trust and information. Similarities exist among the driving factors identified by agents and consumers. When exploring the research questions, not only influencing factors were identified, but barriers that prevent consumers from purchasing products with sustainable attributes also emerged. These were identified as investment return uncertainties, as shown in Table 1.

Table 1. Themes and subthemes of the sustainable and energy efficient adoption data.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Subthemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drivers</td>
<td>Trust in Seller/Realtor</td>
</tr>
<tr>
<td></td>
<td>• Trust reduces performance uncertainty barriers</td>
</tr>
<tr>
<td></td>
<td>• Consumers’ trust that necessary information has been provided</td>
</tr>
<tr>
<td>Information</td>
<td>• Accelerates intention towards SEE (heightened awareness)</td>
</tr>
<tr>
<td></td>
<td>• Necessary for this new home sub-category</td>
</tr>
<tr>
<td></td>
<td>• Lack of information by seller/realtor regarding SEE attributes</td>
</tr>
<tr>
<td>Barriers</td>
<td>Investment Return Uncertainty</td>
</tr>
<tr>
<td></td>
<td>• Uncertainty regarding SEE attribute investment return</td>
</tr>
<tr>
<td></td>
<td>• Enhanced concerns due to price/investment risk</td>
</tr>
</tbody>
</table>

3.1. Trust in Seller/Realtor

Trust mitigates uncertainties that exist regarding the return on investment for utility functions of the SEE features. Agents play an important role in educating their buyer and are viewed as credible sources of information. It is common for the buyer and agent to develop a strong relationship built on trust. Agents play an important role in providing expert opinions and additional information to consumers about features within the home. This finding aligns with the literature on attitude formation and persuasion, as a home is a high-involvement purchase and consumers are persuaded through a central route, which includes rich information and expert opinions [1]. The consumer trusts the agent’s opinion as demonstrated at the end of the following quote.

“With clients, my job is to actually try to find out as much information as I can and share that with them and kind of be that knowledgeable person...it’s a big responsibility I have, to support them and earn their trust.”

(Agent 9).

“I’m established enough that I can really offer consumer-centric advice—so it’s very educational, but the approach I take is to give them the benefit of my knowledge and experience and help educate them on certain things.”

(Agent 3).
Agents identify themselves as educators in the buyer–seller relationship. Information is used to reduce consumer dissonance regarding attributes with which the buyer is unfamiliar. This is expressed when the agent provides insight into an area that the consumer would have otherwise worried about or not have included in their consideration set. The agent views themselves as a credible resource for related information.

3.2. Information

An increase in buyer knowledge is a trend that has been noted in the literature [44,45]. The findings align with this, as both agents and consumers discussed the in-depth process they went through to understand the attributes of a home. First-time home buyers that belonged to a younger age demographic were most likely to conduct a thorough information search online and include enquiries about SEE attributes prior to viewing the home. Consumer knowledge was often discussed by the participants. The common theme was that people were prepared when meeting with their agent to purchase a home. They had gained knowledge about targeted homes through online sources. Knowledge about SEE features was seen as generational, with the younger generation arriving with more information and able to ask more specific SEE questions when meeting with agents.

“They’re very knowledgeable. The younger people, the more they learn about sustainability, the more they’re going to ask about it. But the older people, they’re not going to learn about it so they’re not going to ask about it.”

(Agent 6).

Notably, while consumers care to understand how SEE features save them money, they do not care to understand how these features work. Consumers strive to understand that SEE features save them money, and information was considered most persuasive in forming a positive attitude towards the product when it demonstrated cost savings.

“The first question they asked when they are interested in the home is about the utility bills. This is when you know that they are seriously interested and also when we can discuss how energy efficient the place is based on upgrades and additional features. You know; they don’t really think that much about how they [SEE features] work. It’s usually just about how much it will cost to run and how much money they will save … It is me who talks about that. So, usually, I point it out.”

(Agent 8).

Agents play a pivotal role in educating buyers about aspects of the home and they revealed that they were interested in learning more about SEE features. They are deemed to be a credible source and highly trusted. However, agents are not fully informed about SEE features as these are a newer aspect of the housing industry. The need for agent education was prevalent throughout the interviews and some even expressed the type of education that they would like to have. The quote below provides an explicit statement which aligned with this need for SEE education among agents.

“The biggest barrier is poor training for realtors. Most realtors don’t have sustained training of real consequence. The bar of entry for real estate is extremely low and this hasn’t even addressed the sustainable technologies we’re talking about.”

(Agent 1).

“If someone like yourself, along with the builder, because that way it offsets the builder’s interest only. This is where it’s a combination of hey, we have an educator as well as a builder and they’re saying hey, this could be the direction we want to go and could provide us with information, this would be helpful.”

(Agent 3).
Agents acknowledge their lack of information regarding SEE features and the above quote demonstrates that they view the researcher as a credible source of information. It is implied that information coming from the builder is biased by their interests, making the researcher a more credible source of information as they are viewed as having nothing to lose by sharing information.

### 3.3. Investment Return Uncertainty

Home buyers are willing to pay a premium for a SEE home that is offset by the long-term savings associated with the SEE features [46–48]. The following findings provide insight into the attitudes towards the price construct and the impact it has on the decision-making process. Price can refer to the overall cost of the home and/or to the features/attributes within the home. When examining the SEE housing market, performance uncertainty and return on investment concerns were common themes that emerged from the data as barriers to consumption.

“The challenge with energy efficient homes is that they’re expensive to build. So, I think that the selling tool would be to have a home similar in size, similar in everything and then compare the cost per year to run it versus the cost per year to run this sustainable one . . . . And, have that clear quantitative amount to show how many dollars per year it is going to save someone.”

(Participant 8).

Quantifiable information that demonstrates the return of SEE investments was viewed as important in closing this misconception gap, and as a useful tool for side by side comparisons when pricing misconceptions existed. Financial risk and investment return barriers exist due to misconceptions within this domain. Price was found to be the most significant force when purchasing a home and this result extends to SEE features. Further, price was the common link throughout the interviews and was considered to be the number one factor that consumers took into consideration when purchasing a home with or without SEE features. Agents acknowledge that because there is no direct comparison, the financial risk poses a barrier as misconceptions exist with understanding the investment return.

“You have to be in the home for ten plus years to be able to literally, maybe even break even on having energy efficient upgrades. If the average person is moving every five years, it doesn’t make a lot of sense for them to invest in a ten plus year system, because they’re going to be just spending the money and not even getting the money back.”

(Agent 12).

When SEE features are available, the price remains a barrier as both agents and consumers acknowledge a lack of understanding of the return for investing in these features. These investment uncertainties were common barriers found throughout the data.

### 4. Discussion

The aim of this research was to identify forces that impact the ethical decision-making process and address existing barriers that perpetuate the attitude–behaviour gap when purchasing homes with SEE features. Our research provides new insights into the high-involvement decision-making process by identifying driving factors and barriers that impact adoption. Building on the theory of reasoned action model [49], we developed a conceptual framework to illustrate how the findings fit within the ethical decision-making process. Figure 1 shows the relationships between these constructs.

Access to information about SEE features is easily found online, heightening consumers’ awareness and forming an adoption intention. However, investment return uncertainty persists and acts as a behaviour barrier as consumers are concerned that the upfront costs of the features may not be worth the associated investment. Information regarding the cost savings from these attributes is lacking during the decision-making process. Barriers within this high-involvement domain contribute to the
intention–behaviour gap and are mostly related to financial risk regarding pricing and investment return uncertainties.

![Figure 1. Sustainable and energy efficient housing adoption drivers and barriers.](image)

Agents play an important role in reducing this dissonance by building trust with their clients and providing reassuring information. Due to the lack of information that currently exists with the agent (who plays a pivotal role), the consumer is not reassured within their relationship. This contributes to this barrier as misconceptions are not addressed. The consumer trusts the agent with their advice and knowledge regarding these features. However, due to this emerging subcategory, a lag exists with training. Agents are not sufficiently knowledgeable about these features and therefore are not able to provide information that could aid in reducing the dissonance. This is especially heightened due to the financial risk associated with a high-involvement product, leading to a greater unwillingness to purchase SEE features.

The role of consumers’ lifestyles and their relationship to financial investments also emerged within the data. The current SEE housing market was perceived to not work with the lifestyles of the average Canadian—the SEE financial return was estimated to take longer than ten years to realise and consumers would not live in their homes long enough to gain from those benefits.

A managerial implication of this study is to institute a standardized process for measuring and reporting sustainability and efficiency in homes. An efficiency benchmark included with home advertisements on information listing sheets would reduce this uncertainty. An example of an efficiency measurement is a standardised blower door test. The blower door describes a technique that tests the building envelope to measure air tightness and uncover hidden air leakage throughout the home [50]. This standardised test provides a number so that a quantifiable comparison can occur, and consumers can become knowledgeable (on a high level) regarding the relative energy efficiency of a home. This benchmark information may reduce the contradiction barrier that exists regarding the cost and return on investment for SEE features. If consumers then wanted to make a more efficient purchase of a house, they would be able to do so based on the transparency of the efficiency information. Similarly, proper agent training and readily available information that clearly demonstrates the investment returns would also aid in reducing this barrier.

5. Conclusions

While the literature on decision-making processes regarding ethical goods is extensive, the work mostly focuses on low-involvement products. Since the intention–behaviour gap differs between low- and high-involvement products, it is necessary to study high-involvement ethical consumption directly, rather than simply interpolate low-involvement findings onto high-involvement consumption.
This research explores the attitude–behaviour gap within high-involvement ethical consumption, examining the economically and environmentally key subcategory of sustainable and energy efficient homes.

Through an observation and in-depth interviews, we captured how meaning is constructed through the SEE home purchase decision process. The findings present relationships among driving factors identified by agents and consumers: trust and information. This is important as consumers’ cognitive dissonance is reduced when they trust the agent and are provided with reassuring information.

Barriers that prevent consumers from purchasing ethical products are identified as investment return uncertainty, and this impacts upfront investments. Financial risk is associated with high-involvement products. The inability to reduce investment return uncertainty through information (due to a lack of knowledge and training among agents) contributes to the intention–behaviour gap. Managerial implications which can address these issues include standardized SEE measures on homes and SEE education for agents.

By exploring forces that impact the ethical decision-making process, new insights are gained, and strategies identified that may reduce the enduring intention–behaviour gap. Agents play an important role in reducing this dissonance by building trust with their clients and providing reassuring information.


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