LUND UNIVERSITY
School of Economics and Management

Department of Business Administration
FEKN90, Business Administration
Examensarbete på civilekonomprogrammet
Spring 2015

"Sustainable Sustainability – How do we do it?"

A study in consumer behavior and the path towards a sustainable society

18/5 - 2015

Authors:
Niklas Dahlberg
Jonathan Jansson

Supervisor
Matts Kärreman

Acknowledgements

First of all, we would like to thank our supervisor Matts Kärreman for providing us with invaluable support, feedback and advice during our research. We would also like to express our gratitude to Thomas Sundén, Åsa Stenmark and Katarina Axelsson at Sustainable Hökarängen for taking part in our interviews as well as all other participants in our interviews and focus groups. This study would not have been possible without your help.

Thank you all!

Lund, May 2015

Niklas Dahlberg and Jonathan Jansson

Abstract

Title – "Sustainable Sustainability, how do we do it? A study in consumer behavior and the path towards a sustainable society"

Seminar date – 2015-05-26

Course – FEKN90 Master Thesis in Science and Business Administration, 30 ECTS.

Authors – Niklas Dahlberg and Jonathan Jansson

Supervisor – Matts Kärreman

Key Words – Sustainability, consumer behavior, consumer decision making, demand creation for sustainability initiatives, cognitive dissonance.

Purpose – Contribute to understanding why and when consumers adopt sustainable practices, what factors affect their decision and their perception of sustainability.

Methodology – Qualitative methods are used following an inductive process. A single case study with semi-structured in-depth interviews has been conducted as well as multiple semi-structured focus groups and semi-structured individual in-depth interviews with consumers.

Theory – The theory focuses on sustainability as a concept, consumer behavior theory, decision making theory and cognitive dissonance theory. Additional theory has been added to provide a solid theoretical foundation.

Empirical Foundation – The focus groups were conducted at Lund University in Sweden, the case study was made on the sustainability project "Sustainable Hökarängen" in Stockholm and the in-depth interviews with consumers were conducted with participants in the project "Bokompakt" outside of Lund.

Conclusions – We have created and revised a theoretical framework, based on previous literature and our empirical findings, that aims to present factors affecting consumer behavior and the decision making process in terms of sustainability. A discrepancy between the trends of the academic world and the perception of sustainability among consumers has also been noted.

Sammanfattning

Titel – “Sustainable Sustainability, how do we do it? A study in consumer behavior and the path towards a sustainable society”

Seminariedatum – 2015-05-26

Kurs – FEKN90 Examensarbete på civilekonomprogrammet, 30 ECTS.

Författare – Niklas Dahlberg och Jonathan Jansson

Handledare – Matts Kärreman

Nyckelord – Hållbarhet, konsumentbeteende, beslutsfattande, efterfrågegenerering för hållbarhetsprojekt, kognitiv dissonans.

Syfte – Öka förståelsen för hur och varför konsumenter anammar hållbara beteenden, vilka faktorer som påverkar beslutsprocessen och konsumenters uppfattning om hållbarhet.

Metod – Empirisk data samlas in genom kvalitativa metoder med en induktiv ansats. En enskild fallstudie med semi-strukturerade djupintervjuer med beslutsfattare samt flertalet fokusgrupper och semi-strukturerade djupintervjuer med individuella konsumenter har genomförts.

Teori – Den teoretiska basen består av teori kring hållbarhet som koncept, konsumentbeteende, beslutsfattande samt kognitiv dissonans teori. Ytterligare teori har tillförts för att förse läsaren med den nödvändiga kontexten samt ytterligare relevant information på vilken vår analys till viss del vilar.

Empiri – Fokusgrupperna har genomförts vid Lunds Universitet, fallstudien genomfördes på hållbarhetsprojektet ”Hållbara Hökarängen” i Stockholm och djupintervjuerna med konsumenter genomfördes med deltagare i hållbarhetsprojektet ”Bokompakt” utanför Lund.

Slutsatser – Vi har med hjälp av tidigare litteratur samt våra empiriska observationer skapat och reviderat ett teoretiskt ramverk som ämnar presentera potentiella förklaringsfaktorer för konsumentbeteende och beslutsfattande i termer av hållbarhet. En diskrepans mellan trenderna i den akademiska världen för närvarande och konsumenters syn på hållbarhet har även noterats.

Table of contents

1. Introduction

1.1 Background and Problematization

Ever since it became possible to reliably measure mankind's impact on the world, one finding appears increasingly obvious: our way of living has dramatic effects on the world and has become a threat to our very existence (WWF, 2015). Smog, melting ice fields, storms, floods, rising temperatures, disappearing wildlife. The signs are there no matter which direction you look and according to most research, this is only the beginning (Boston college, 2014). Humanity is continuously demanding resources at a much higher pace than the Earth can regenerate them, and each year we overshoot our share (Global Footprint Network, 2014).

This study attempts to find answers to the questions:

What is sustainability, how do consumers make decisions regarding the adoption of sustainable practices and which factors affect their decision?

To avoid misunderstandings, it should be mentioned that there are scientists who consider the observed climate changes a result of natural variations. However, a study by NASA shows that 97 percent of climate scientists worldwide agree that "climate varying trends over the past century are very likely due to human activities" (NASA, 2015). Hence, we take a starting point in this notion.

Sustainability is receiving massive attention worldwide, and much is directed towards global companies and organizations. Although companies embracing sustainable practices is a fundamental part in creating a more sustainable society, we believe the battle for sustainability will stand in the cities, as will be argued below, and getting individual citizens to embrace their opportunities as well as their responsibility to become more sustainable will be the key to a sustainable society. The major cities remain responsible for a considerable part of the world´s pollution, which has been the case since the industrialism. Recent studies shows that cities

occupy roughly 2 percent of the Earth, but are responsible for about 70 percent of both the carbon emissions and energy consumption worldwide (Sustainable cities, 2012). They are also home for most people, half of the world´s population live in cities, which makes them an obvious target for creating a sustainable society (Sustainable cities, 2012). Furthermore, given the rapid urbanization worldwide it is reasonable to believe that the importance of cities will continue to increase in the future (NOAA, 2008).

In order for cities to become more sustainable, investments in projects that allow inhabitants to become more sustainable must be initiated. Such projects often have broad and demanding goals in terms of the improvements they will bring. Examples include the goals that have been set up for sustainability projects in Sydney, which is to reduce greenhouse emissions by 70 percent from the levels in 2006 before 2030, and in Copenhagen, which is to become the first carbon neutral capital by 2025 (City of Sydney, 2013; State of Green, 2014). These are long-term goals that require the inhabitants of the city to adapt to the changes and change their own way of living. This raises some fundamental questions. How do consumers set goals for their consumption? What determines the success of sustainability investments and what makes consumers act in a sustainable manner? To answer these complex questions a deep understanding of human behavior and the ways in which consumers make decisions is required.

When companies design their business models and consider socially responsible practices they have the luxury of being able to choose their customers. Theories such as the ones about market segmentation are used to identify different types of consumers and customer-groups that can then be targeted (Dunbar & Mcdonald, 2012). A company can, for example, use a differentiation strategy and claim that their product provides something unique relative to the competitors because it has been produced in a sustainable way, and therefore charge a premium price (Porter, 2002).

Sustainability initiatives in a city context do not have this luxury. In order for these projects to live up to the ambitious goals set and really make an impact a majority of the inhabitants must have incentives to adopt the new practices. The population of the Earth can be seen as a world community, and we must all participate for effective action to take place (Eisman & McDonald,

2011). The same goes for individual cities. If one assumes that the population of a city represents the general population, the investments must be attractive to people of different backgrounds, with different opinions and different life-situations. Sustainability initiatives in a city context can of course be somewhat successful by only creating incentives for certain inhabitants but it will not be enough to make the city sustainable in the long run or reach the goals set.

This makes the task of designing sustainability initiatives in a city context difficult. Unsustainable practices continue to dominate sustainable dittos due to the fact that sustainable practices often demand something from citizens that is not demanded by the unsustainable practices. The most apparent evidence for this is that pollution increases worldwide and harmful practices continue to survive and prosper (Global Footprint Network, 2014). If equally attractive options to these practices existed, they would be chosen by consumers every time. For many people this is fine, and they will gladly increase their efforts to contribute to a better society. However, others will not. They will consider the sustainable way to be too much of a hassle and will not adopt the new practices. So how should initiatives be designed? What incentives are given to citizens and how do they correlate to the potential sacrifices they have to make? What factors affect the way people make decisions in these situations? In other words, we are concerned with how demand is created for sustainability investments and products, especially not-for-profit initiatives where the primary goal is to contribute to the overarching goal of sustainability.

1.2 Purpose and demarcation

The main purpose of this paper is to:

Contribute to understanding how and when consumers adopt sustainable practices as well as give a clearer, more accurate picture of their view of sustainability as a concept compared to the academic definitions available.

Our view is that this will be of relevance to decision-makers both in companies and governmental organizations since it will increase the understanding of how sustainability initiatives should be designed and presented to consumers in order to be successful, and help form realistic goals for the projects.

In order to demarcate our study and make it realistic for us to draw relevant conclusions, we have chosen to focus on consumer behavior and abstract factors such as feelings and opinions that can trigger adoption of sustainable practices rather than external conditions. Indeed, some of the questions that arose during our literature review are concerned with such conditions and we believe this is a field that should be further studied, primarily in order to form a clear and dynamic model that can guide initiators of sustainability projects. However, it appears unlikely that we could, with the time and resources at hand, simultaneously study the conditions affecting the adoption of sustainable practices and the consumer behavior involved in making the decision with satisfying results. In order to draw conclusions regarding the conditions we would have to study many cases characterized by different conditions, which would be time consuming and draw our attention away from the consumer decision making process.

1.3 The City Context

As mentioned, we claim that the battle for sustainability will stand in the cities, which is why it is important to specify what we mean by a city. The term city has different meanings around the world and common aspects in the definitions available are a concentration of people, a juridical status as well as usage of a wider area of land (The Guardian, 2014; NE, 2014) A rule of thumb adopted by the United Kingdom is that a city should have a population of at least 300 000 people, have a somewhat distinct identity that is the center of a larger area, as well as a good record of local government (The Guardian, 2014). Although the number of residents can be discussed, we believe this definition captures the essence of a city well. Hence, this definition is used throughout this study.

The role played and the importance of cities has increased the last decades as people are moving from rural areas into the cities. This phenomenon is known as urbanization (Forbes, 2015). More than 50 percent of the Earth's population is now living in cities all over the world and by 2030, the forecasted number is 75 percent (United Nations, 2014a). In the US, 9 out of 10 citizens are expected to live in cities by 2050. The cities will be required to provide proper residences and ensure that the environmental conditions are acceptable for the inhabitants. However, the urbanization also provides the cities with the opportunity to become more economically and environmentally efficient by improving resource utilization and allocation (United Nations, 2014b).

2. Method

2.1 Scientific approach

In preparing for this study, we have reviewed academic literature mainly from the fields of philosophy and business and economics, which we return to in the section choice of theory. Initially we discussed attempting to use existing theories from these fields to identify factors that could affect the way consumers make decisions regarding sustainability, and then test those hypothesizes with a quantitative method. This would suggest a testing approach following a deductive process. With a deductive process existing knowledge and theories are used to form a hypothesis or expectations that can be tested in reality (Beiske, 2007). However, as our knowledge on the topic increased, we realized that this logic would limit our opportunities to gain a deeper understanding of consumer behavior and "lock us in" to one possible explanation. We finally chose to have an explorative approach, following an inductive process, meaning that we observe a phenomenon, gather empirical data and then attempt to form theories in order to explain the phenomenon (Bryman & Bell, 2011).

The most characteristic attributes of the inductive and deductive logic are presented in the table below. We would like to highlight the focus attribute, which shows that the inductive process is better for understanding dynamics and individual behavior, and the temporal scales attribute, which makes it stochastic rather than deterministic. Both of these attributes, along with the others, suggests an inductive process for an exploratory study in human behavior like ours.

Attribute	*Deductive*	*Inductive*
Direction	"Top-Down"	"Bottom-Up"
Focus	Predicting changes, validating theoretical construct, focus in "mean" behavior, testing assumptions and hypotheses, constructing most likely future	Understanding dynamics, robustness, emergence, resilience, focus on individual behavior, constructing alternative futures
Spatial scales	Single (One landscape, one resolution)	Multiple (Multiple landscapes, one resolution)
Temporal scales	Multiple (Deterministic)	Multiple (Stochastic)
Cognitive scales	Single (Homogenous preferences)	Multiple (Heterogeneous preferences)
Aggregation scales	Single (One aggregation scale)	Single or multiple (One or more aggregation scales)
Predictive vs. Stochastic accuracy	High-Low (One likely future)	Low-High (Many likely futures)
Data intensity	Low (Group or panel attributes)	High (Individual or group attributes)

Table 1. Source: Alexandridis (2006)

Exploratory research does not attempt to come up with a final solution to the identified problem but rather add to the knowledge base of a topic on which little is known as well as deliver suggestions on the causes and how the problem can be solved. The research that provides the final findings and solution to the problem is called conclusive research, and produce recommendations that business practitioners can act according to (Sandhusen, 2000).

2.2 Choice of theory

When deciding upon relevant literature for our study we took a starting point in three different fields of study: consumer behavior, the concept of sustainability and decision making theory. Consumer behavior and decision making theory is mainly studied within psychology and the science of business and economics, and we have attempted to tie these two together. The concept

of sustainability differs from the other theory used in terms of epistemological level since it is mainly empirical in its character, and there are no coherent theories of causalities available. The idea has been that by understanding how consumers act in certain situations and then combining this with existing theories on decision making we can identify factors that have affected the consumers´ choices in the sustainability initiatives studied. Additional theory that we have found relevant and essential for understanding the rest of the theoretical base has been added along the way.

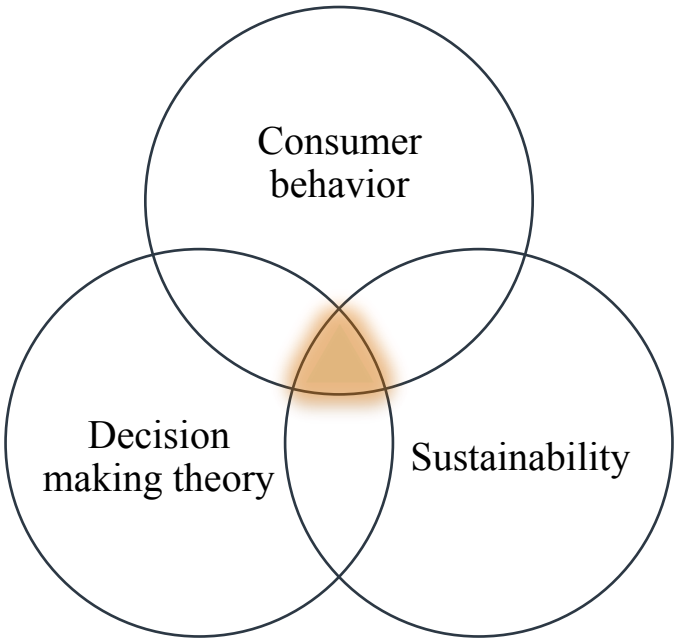


Figure 1. Choice of theory

2.3 Research strategy

As a natural consequence of the inductive process, we have used qualitative research methods to gather empirical data. The main difference between qualitative and quantitative methods is that qualitative methods are based on words and feelings, and aims to provide a deeper understanding of a phenomenon while quantitative methods use numbers and figures to study correlation through for example regression analysis methods (Bryman & Bell, 2011). The strength of the qualitative methods is that they are considered better at "providing rich data about real life people and situations and being more able to make sense of behavior and to understand behavior

within its wider context", (de Vaus, 2002, p.5). Using qualitative methods allows the researcher to base the study on a general research-idea that can be adjusted to the respondents (Bryman & Bell, 2011).

The main deficiencies of the qualitative methods are often presented as the relative inability to generalize the results, being too dependent on the way in which the researcher interprets the results, which is inherently subjective, and the difficulties for other researchers to replicate the study (de Vaus, 2002). Since we are interested in understanding why people act the way they do, and have been gathering data based on feelings, opinions and preferences, our view is that a qualitative method was the obvious choice for our study. It is difficult to imagine how such variables could be quantified in a satisfying manner and even if we would succeed in doing this, we would still not know what the reasons behind the results were. Qualitative methods allow us to ask follow-up questions, explain, and adjust the questions while quantitative methods are inherently inflexible. With quantitative methods, there is also an imminent risk that people do not understand the question or answer with regards to something else. Some questions may also produce answers that are hard to articulate in, for example, a survey (Bryman & Bell, 2011).

2.4 Research design

The chosen research design is a combination of a single case study made on the project Sustainable Hökarängen and in-depth interviews with consumers. We have also conducted focus groups in order to form expectations and increase our understanding of the topic prior to the in-depth interviews. We have gathered empirical data from the chosen case by interviewing people with knowledge about what has been done and what the results have been. This data has not served as the primary unit of analysis, but provides the reader with a context so that the additional data can be understood. The most important data, on which our analysis is based, has been collected through in-depth interviews with consumers. Interviews allow us to gather detailed primary data that can be analyzed immediately (Saunders, Lewis & Thornhill, 2007) and the case study gives us an in-depth insight into a particular case which helps us better understand the impact of the relationships and processes (Denscombe, 2004). Our study is characterized by

the use of grounded theory, meaning that the conclusions drawn and the theory generated is grounded in observations made in real life. Our initial research questions have been generative and guided the research, but have not been static. We have throughout the study identified core theoretical concepts, which we have used to draw linkages and conclusions (Trochim, 2006a).

The study is based on primary data, gathered through the use of methods described above, and secondary data, gathered from journal articles, books, websites and additional information provided by the respondents. The secondary data has been critically reviewed and the information has been confirmed by several sources to ensure the validity of the data. The secondary sources have primarily been used to review previous literature and theory. Secondary data from the case chosen has also been used and confirmed by our respondents.

2.5 Case selection

When looking for suitable cases, we had five criteria that had to be met. First, the case had to be compatible with our definition of a sustainability initiative, which will be introduced in the following chapter, meaning that it had to be a project with the primary intention of creating a more sustainable society by balancing the goal of development and short-term well-being with taking responsibility for future generations, either by encouraging a more restrictive use of natural resources (strong sustainability) or creating capital such as knowledge that can replace natural resources and improve the situation for future generations (weak sustainability). Second, the project had to require the consumers that have been part of the project to change their behavior since the decision making process is the scope of this study. Third, we had to be able to retrieve both secondary and primary data from the case to ensure a correct picture. Fourth, it had to be possible to draw some initial conclusions from the project so that they could be compared to our findings. Finally, the project could not be older than five years to ensure that the respondents would be able to remember the case. We ended up choosing the case Sustainable Hökarängen, which is further discussed in the empirical findings chapter.

2.6 Research instruments

2.6.1 Semi-structured interviews

Our interviews have been semi-structured, which is a combination of structured and unstructured interviews. This allows for unplanned follow-up questions as well as having several ready questions that can be asked depending on how the interview plays out. This type of interview is suitable when the researcher is confident in what areas the interview will cover but wants the possibility to clarify certain answers. It also provides a higher degree of reliability than completely unstructured, informal interviews, since there is less risk that biases will play in (Bryman & Bell, 2011). This type of interview suited us since we knew what we wanted to talk about, but not what answers might be expected, which created a need for possibilities to ask follow-up questions to clarify answers. As a support during the interviews we had interview-guides (see appendix 3 and 4) that were designed based on a pilot-interview with a representative from Sustainable Innovation AB and our literature review. By conducting a pilot-interview, we could fill in some blanks before the interview and find out which questions or topics that may have been perceived as unclear by the respondents (Yin, 2009).

2.6.2 Focus groups

A focus group is a conversation, normally between 8 and 12 people, that is being led by a moderator. It is a good way to form an idea about the research topic before moving on to the in-depth interviews. The focus groups are rarely the primary method for collecting empirical data but serves as an aid and complement to other methods. The purpose is to get the participants to talk about the topic at length and in detail. The idea is that discussing a subject will create a synergy effect that leads to new perspectives and inputs. The task of the moderator is to guide and keep the discussion alive, but should not be an active participant. The minds of the participants should be able to flow freely. In focus groups, the individuals usually have some common characteristic that relates to the subject that is being discussed (Proctor, 2005).

We chose to use focus groups to get a picture of how consumers view sustainability, make decisions and which of the definitions that we have explored appeal most to them. This is

important not only because it contributes to our understanding of how consumers think and allows us to formulate questions for the in-depth interviews, but also because it contributes to understanding how framing of an initiative might affect the likelihood of adoption among consumers. By designing a project in a way that is in line with the definitions most frequently adopted, the consumers will be more likely to change their ways to contribute to sustainability.

2.7 Data Collection

2.7.1 Case interviews

We used a snowball-sampling method to find respondents for the interviews within the case study, meaning that we contacted individuals involved in the project and asked them to recommend people for the interviews. The problem with this method is that it is unlikely that the final sample is representative of the population. However, this problem is not as significant for qualitative studies as it is for quantitative, which is why we have considered it an acceptable method (Bryman & Bell, 2011). Also, our sampling method can be seen as a judgement sample where we actively chose respondents with the potential to contribute to the study, which is a very common sampling method for qualitative studies (Marshall, 1996).

Prior to the interviews, we sent a short presentation of ourselves and our study in which we informed the respondent about the length and topic of the interview. The purpose of this was to make the respondent feel comfortable about what to expect and make it possible for them to inform us if they would believe that they were not suited for the interview. We were careful not to reveal what we wanted from the interviews as this could have affected the answers given. The interviews lasted between 32 and 51 minutes and were conducted either by phone or face-to-face. We asked all of the respondents if we were allowed to record the interview, and all of them said yes. All of the interviews were partially transcribed and listened through by both of us. In case of any uncertainties regarding the answers, we returned to the respondents for clarification.

2.7.2 Focus group procedure

We used a convenience sampling method when finding respondents for the focus groups. The most important criteria was thus accessibility. Since we are interested in consumer behavior, the only demand that was put on the respondents for the focus groups was that they are consumers that have some kind of relationship to sustainability. However, some homogeneity in the group or common characteristic is also important for a focus group since it can make the respondents feel comfortable and understand each other, which is why we decided to invite young participants, between 18 and 32 years old, living in Lund. The choice to interview young people is further motivated by the fact that people aged between 18 and 32 account for a quarter of the Earth´s population, are typically more engaged in the environmental issues than older generations and is the most important generation for the future of sustainability (Keeble, 2013). Apart from this criterion, our ambition was to find individuals from diverse backgrounds with different experiences to improve the richness of the discussion.

The respondents were found through personal contacts and postings in different Facebook groups as well as other forums that we had access to. We made sure that none of the participants knew each other beforehand and tried to have an equal mix of men and women. The main deficiency of using a convenience sample is that it is not representative of a particular population and the findings are thus hard to generalize. However, we believe this method provided us with rich results and since the main purpose of the focus groups was to increase our own understanding of the topic rather than drawing any real conclusions, we considered it acceptable (Bryman & Bell, 2011).

We began all focus groups with an experiment where the participants one at a time entered a room where we had placed envelopes. On each envelope a sentence representing a particular view on sustainability was written. The participants were given three tokens each and were asked to place them in the envelopes that best represented how they felt about sustainability. The tokens were numbered from 1 to 3 and were placed in the envelopes with the quotes the participants sympathized most with, 1 being the best. Each participant had to place all three tokens and were not allowed to place more than one in a single envelope. The idea behind this was to understand how their view on sustainability relates to the definitions explored in the

literature review as well as work as stimuli material prior to the discussion. See appendix 1 for the quotes written on the envelopes.

We then started the discussion, one of us was acting as a moderator while the other one was taking notes. An interview guide was used (see appendix 2), but our ambition was to use this as little as possible. The discussions lasted between 62 and 78 minutes and the groups consisted of 4 to 8 respondents. We began with an ambition to have at least 8 respondents to comply with the recommendations found (Proctor, 2005). However, prior to one of the discussions we received several late cancellations, which meant that we only had 5 respondents. We found this discussion to be at least as rewarding as with 8 respondents since it allowed for a more intimate discussion where the respondents could develop their thoughts and get their voice heard easier. We therefore chose to relax our demands and our third focus group consisted of 4 respondents.

2.7.3 Consumer interview procedure

The respondents for the individual in-depth interviews with consumers were chosen from a specific population that we had identified as suitable for our study. The population chosen was people living in the apartment complex Bokompakt in Lund, and has been part of the sustainability project conducted by the real-estate company AF Bostäder in Lund. Further information about the project and why it was chosen as our population follows in empirical findings.

A convenience sampling method was ultimately used, meaning that we interviewed the consumers that were willing to take part in the study, and the only criteria that had to be fulfilled was the above stated criteria to be part of the project. We also wanted to have an equal mix of men and women, which we were able to achieve (3 men and 3 women). We are aware of the problems with this method since it is unlikely to yield a representative sample of the population and is heavily prone to bias. Our initial ambition was to use a judgement sample, which means that suitable variables among the respondents would be chosen beforehand to ensure their contribution. The participants would then have been actively selected (Marshall, 1996). However, the conversations took 45-60 minutes and we had difficulties finding people who were

willing to participate in such long interviews. The respondents were found through posting in their Facebook group and e-mails.

The interview-guide that was used (see appendix 4) was based on the results obtained in the focus-groups, which is further developed in the chapter on empirical findings. All interviews started with a relaxed conversation to make the respondents feel comfortable. We then moved on to talk about the apartments and the project. After that we continued by talking about sustainability in general and in terms of decision-making.

2.8 Data analysis

The data analysis is one of the most critical procedures for qualitative studies, since it is our interpretation of the data that determines the nature of the results and conclusions (Bryman & Bell, 2013).

All of our interviews and focus groups were recorded and then partially transcribed, meaning that we transcribed the parts of the conversation that could potentially be of use to our study. One of us held the interview while the other took notes and supported the interviewer in case anything was missed. The conversations were listened through by both of us and we then compared the notes to the transcribed material and analyzed it with support from the theoretical base presented earlier. The material was then coded and categorized based on the themes that we could identify and incorporated in the empirical findings and analysis. In case the material was unclear or additional information was needed, we returned to the respondents. Our analysis can, apart from the above described field research, be said to have an ethnographic approach since notes were taken based on participant observation that were then used to interpret the material. To some extent a phenomenological approach was also taken since our research is focused on subjective experiences, which affected the analysis of the material (Trochim, 2006a).

2.9 Triangulation

Our data collection is characterized by the use of triangulation. Triangulation means that more than one source is used to gather the empirical data which may strengthen the confidence of the conclusions drawn, since the different sources can confirm each other (Yin, 2009). This is especially important for our study, considering that we have had relatively few individual in-depth interviews with consumers. However, the results are strengthened by our case study and focus groups. For example, by interviewing both consumers that has been a part of sustainability projects as well as initiators of such projects we can get a clearer picture of how the project has been carried out and what it has meant to the consumers. The initiators of the project may be inclined to picture it in a positive manner since they have an interest in doing this, but this risk can be mitigated by getting the information confirmed by the consumers.

We believe that our use of the term triangulation is justified since we have interviewed different people in different social situations at different times, and thus satisfy the demands for *data triangulation* by using more than one sampling strategy (Denzin, 1970).

2.10 Validity and reliability

2.10.1 Construct validity

Construct validity is concerned with whether the methods and tools used are properly suited for measuring the phenomenon studied. This validity is increased by the use of data triangulation, since the gathering of data from different sources provides us with different descriptions and measures of the same phenomenon, which has given us a clearer picture of the phenomenon. Furthermore, our literature review on the topic and several conversations with experts within the field while looking for suitable cases ensures this type of validity (Yin, 2009).

2.10.2 Internal validity

Internal validity refers to how well the results allegedly match reality. This must be considered in all studies since it is not certain that the empirical results and relationships found are the only

ones affecting the phenomenon studied, and hence the relationship found may be a spurious correlation. The fact that we have used the knowledge obtained from our research on the subject in order to form the questions asked during the interviews serves as a type of pattern matching, where we match the empirical results to a predetermined pattern. This line of action strengthens the internal validity since it is more likely that the empirical data is accurate if it matches a pattern that has been predicted based on observations made by other scientists (Yin, 2009).

2.10.3 External validity

External validity concerns the extent to which the results from the study are valid in other environments. As with most case-studies, this is likely the weakest part of our study in terms of validity. An inherent problem with a case-study is that the results are unique for the particular case, although it can be argued that in some cases the major characteristics of different cases are similar enough to justify a broader generalization. Although our primary unit of analysis is consumers and their behavior, which can be said to be something that can be generalized to many different situations, we are studying behavior in one particular context. Although it certainly can be argued and suspected that the results are valid for other situations, this is unfortunately something that we cannot know for sure (Yin, 2009). The possibilities to generalize our results is further discussed in the following section.

2.10.4 Ecological validity

Ecological validity refers to how well the study conducted corresponds with conditions under which the studied phenomenon is likely to occur and is often confused with external validity. The main difference is that external validity is concerned with generalization across experimental settings while ecological validity is concerned with generalization and applicability for existing ecologies (Gehrke, 2014).

The first question that must be asked when considering ecological validity is whether or not the participants in our study acted in a way that reflects how they would act in reality. Mundane realism refers to the extent to which the participants “buy in” to the task at hand and treat it as reality although they know that they are part of an experiment. For example, when the

respondents in our focus groups talk about sustainability, we want them to talk about it in the same way they normally do. Furthermore, if the respondents believe that the researchers want certain answers, they might be inclined to act or answer in a way that they consider "right", which is called the demand characteristics of the study (Reis & Judd, 2014). Once again, we believe the use of triangulation helps us ensure this type of validity, since the answers given by respondents in one setting can be confirmed by respondents in another setting, which increases the ecological validity of the answers. Moreover, we tried to keep the respondents as uninformed about our study as possible in order to make sure that we did not affect their answers.

Therefore, we view the ecological validity of our study as high, and we believe it models how consumers make choices and think about sustainability. However, the demographic characteristics of our respondents have been homogenous, since all of our respondents are from Sweden and can be expected to enjoy a relatively high standard of living compared to many other countries. Such demographic characteristics are likely to have some kind of impact on consumer behavior (Diamantopoulos, Schlegelmilch, Sinkovics & Bohlen, 2003), and more studies that differ with regards to such characteristics need to be conducted. Several of the decision makers that we interviewed emphasized the difficulty of being able to conduct a study several times to obtain results from consumers with different backgrounds.

2.10.5 Reliability

Reliability is about to which degree the chosen method produce results that are consistent and stable (Yin, 2009). In order for others to reach the same results the study must be conducted in the same way, which makes it important to operationalize the steps involved. The reliability of our study is increased by our decision to record all interviews, transcribe them and creating interview guides. By doing this, other researchers can easily recreate the study and get an insight into how the study was conducted. The interview-guides also allows for a greater understanding of the results (Yin, 2009). Furthermore, conducting several interviews in a consistent manner increases the reliability of the results since we can observe to what extent the interviews produce consistent results, which increases the *inter-rater reliability*. One deficiency of our study in terms of reliability is the use of interviews as a single method. The reliability is increased as

more methods are used since the results then can be tested and compared between different methods. Such reliability is called *Parallel forms reliability* (Trochim, 2006b).

2.11 Method implications and obstacles

The most significant obstacle that we had to overcome during our study was the issue of getting access to consumers. Our original thought was that we wanted to gather empirical data about a specific project and then interview consumers involved in this project in order to better understand the results. Initially, we received signals from one project leader at Sustainable Hökarängen implying that it would be possible for them to help us get access to the consumers that had been part of the project. More specifically, they suggested that we could talk to their "sustainability ambassadors". However, after discussing the matter internally they decided that since the project was entering a critical feedback phase it would be inappropriate to put more pressure and demand on the consumers. When this became clear, we had to make a decision on whether or not we should continue to gather empirical data on the project or look for another project where we could get access to consumers.

After thorough deliberation, we decided to proceed with interviews with the project leaders at Hökarängen. The reason for this was that we found the project to be rather unique in the sense that it was a sustainability project focusing on consumer behavior, and highly relevant to our study. We believed the findings in Hökarängen would be very interesting to compare with our own findings and give another dimension to the study, which proved to be the case.

We also decided that since we are interested in consumer behavior in general, it was not necessary to conduct interviews with the consumers involved in the actual project. Certainly, these people may find it easier to recall what made them make certain decisions, but they may also have been affected by the fact that they have been a part of a sustainability project recently and therefore be biased to give answers that they consider "correct". As it turned out, Sustainable Hökarängen has helped us clarify the context in which our study takes place, get a deeper

understanding of the topic and provided us with interesting results that together with our own findings contribute to our conclusions in a significant way.

Finding consumers that were willing to participate in our interviews and also belonged to a population that we found suitable was a difficulty that we wrestled with throughout the study. We contacted several projects but it was difficult to access the consumers and the organizations behind the projects appeared slightly reluctant to help us with this. As mentioned, the approach that was finally chosen was interviewing people in Bokompakt, which can be seen as a little less relevant considering that living in a climate-smart housing does not necessarily mean that you have to change your behavior, although the motivational factors for choosing this option can be studied. However, we found the results to be very rewarding, as is shown in the following chapters.

3. Review of previous literature

The purpose of this literature review is to provide an exhibition of the concept of sustainability, present different perspectives on human and consumer behavior, decision making and rational choice as well as try to identify success factors for sustainability initiatives. We start by reviewing different definitions of sustainability, and eventually present our own take on the concept. Many definitions are explored which serves two purposes: (1) it has helped us create our own definition of a sustainability initiative which has been used as a sampling criteria for choosing cases and (2) it has allowed us to identify different ways to approach sustainability and in which ways consumers relate to the concept. We will then attempt to examine the role of companies and the role of what we, like Spaargaren and Oosterveer (2010), call citizen-consumers. The terms citizens and consumers are examined in depth and we attempt to draw a distinction between the two. Focus then shifts to consumer behavior and decision making. Literature on how consumers form goals and make choices is reviewed. In this section different theories that try to explain how rational choices are made receive much attention. We then continue by reviewing utilitarianism as a foundation for theories of choice and its value in terms of predicting behavior. Finally, we give an account of the previous research done on the topic of this paper and present a preliminary theoretical framework.

3.1 Defining sustainability

3.1.1 The three dimensions

Sustainability is a popular term both among politicians and companies, but it has proven difficult to define sustainable development in precise terms (Parris & Kates, 2003). The policy concept sustainability has its origin in the Brundtland Report from 1987. Initially, sustainability was concerned with the inherent tension between mankind striving for a better life and the limitations nature imposes in terms of resources (Kuhlman & Farrington, 2010, Sen, 2013.). The definition adopted in this report was *"development that meet the needs of the present without compromising the ability of future generations to meet their own needs"* (WCED, 1987, p.15).

Since then, the concept has been developed and re-interpreted and is commonly pictured as consisting of three dimensions: social, economic and environmental (Kuhlman and Farrington, 2010). These dimensions originate from the Triple Bottom Line concept, which was created by Elkington (1997). The economic and environmental dimensions are fairly straightforward, the way that business is made must be sustainable so that economic performance can be ensured long term and considerations regarding how our practices affect the environment and our use of natural resources must be made. The social dimension is less obvious, and there is no agreement on a clear definition. One popular approach is the capability approach provided by Amartya Sen, which is further discussed later in this chapter. Another is the social capital approach, which attempts to put a value on social capital. A broad definition of social capital is offered by Lehtonen (2004, p.204): *"the networks of social relations characterized by norms of trust and reciprocity that can improve the efficiency of society by facilitating coordinated actions"*. Although the importance of considering all three dimensions has been emphasized in theory, much work still remains to be done on what the interactions between the dimensions look like in practice (Lehtonen, 2004).

Kuhlman and Farrington (2010), among others, have argued that the focus on three dimensions has changed sustainability from being about taking responsibility for future generations and the usage of irreplaceable natural resources to instead being about the gratification of present needs. Less focus is put on the environmental dimension and more is put on the social and economic dimensions. In the original version of sustainability, environmental concerns were pitted against welfare. Nowadays projects must score well in, if not all three, at least two dimensions. A project that only performs in environmental terms will not likely be carried out. Hence, the development of sustainability can be said to have softened the assumption that there is a contradiction between our concern for the environment and our desire for a better life. The strength of the original Brundtland Report was that it noticed that there is a tension between the goals of development and sustainability (Kuhlman & Farrington, 2010).

According to Lehtonen (2004), criticism of the triple bottom line approach can be offered on four different accounts. First, it may reinforce the current unsustainable practices, by contributing to

legitimizing the goals that currently exist in society. Second, it strengthens the view of sustainability in environmental terms as something that is separable from sustainability in economic terms, while the actual case may be the exact opposite. Third, the three pillars are likely to be mutually dependent on each other, and the different objectives may be in conflict. Finally, the concept suggests that the three pillars are equal, while in fact one pillar may be ranked above another by certain companies (Lehtonen, 2004).

3.1.2 Weak and strong sustainability

Even though we use natural resources at the expense of future generations we simultaneously create knowledge that can be useful to future generations. Two views of sustainability have emerged with this in mind: weak and strong sustainability. Proponents of the weak sustainability view believe that the natural resources that we use can be replaced by capital, and we should leave a mix of man-made assets and environmental assets that is equal to the assets that this generation was given. Proponents of the strong sustainability view do not believe that natural resources can be substituted for capital and that we need to make sure that future generations has access to the same stock of environmental assets that we have (Kuhlman & Farrington, 2010). It seems reasonable to believe that some resources can be substituted by capital while other cannot, which leads to some natural resources falling under the requirement of strong sustainability, while other fall under the weak view. The most pervasive argument for strong sustainability is based on stewardship theory, we are in other words to some extent acting on behalf of the future generations and therefore do not have the right to use resources in an irresponsible manner (Kuhlman & Farrington, 2010).

Amartya Sen (2013) also acknowledges the Brundtland report in his evaluation of sustainability. Although he considers the report to be an improvement from earlier attempts of understanding sustainability, he believes the definition is incomplete, and proposes a freedom-oriented view. According to Sen, the liberty to pursue and define our own goals, commitments and objectives and fulfill our needs are included in human freedoms. This freedom needs to be sustained, and should be included in the concept of sustainability (Sen, 2013). Furthermore, Sen argues that

maximization of sustainable consumption should not be a goal in itself since it is a means to reach an end rather than an end-based objective. However, sustainable consumption as an idea does contribute to sustainable development, which should be the actual goal, by shining light on the fact that many practices today are unsustainable and needs to be changed (Sen, 2013).

In their article from 2013, Demals and Hyard questions whether Sen´s freedom-based view broadens the concept of sustainability. The freedom-orientation has its roots in the capability-approach, which focuses on future generations' capabilities to live a life based on equal conditions and opportunities that our generation faces. However, this approach can be seen as abstract and non-applicable as an analytical framework in order to identify social preconditions for institutional change that are necessary in order for sustainable development to be feasible (Lehtonen, 2004). Focusing on needs is straightforward and allows us to set up targets that sustainability projects can strive towards. Sen is of the opinion that resources can be substituted for each other and that a focus on preserving natural resources is faulty, since focus should be on the opportunities and conditions that future generations face, rather than what particular resources they have access to. The environment is treated as a good and financial value is put on externalities, they are simply treated like any resources (Demals & Hyard, 2013).

We believe such a starting point is both comfortable and positive, but it is based on a faith in human beings innovativeness that many environmental scientists likely would consider naive, given the warning flags raised regarding the excessive consumption patterns reported. Certainly, such a starting point could speed up the sustainable development but the question is whether shifting focus from preserving natural resources to creating new justifies the consumption practices that we are at the same time condemning, and instead put faith in our ability to solve the problem. On the other hand, as Demals and Hyard points out, the environment is not just what currently exist and does not exist, it is also what opportunities it presents to people, which is why it cannot be preserved by just letting it be. Also, by just preserving natural resources, our ability to improve the environment is ignored (Demals & Hyard, 2013).

3.1.3 What is the contribution of sustainability?

Another influential author whose work we believe should be noted is Robert M. Solow (1991). He finds the concept of sustainability to be essentially vague and argues that it is wrong to think of it as a concept that is capable of being made precise, and is hence not a guide towards policies. The starting point is that the essence of sustainability is that we have a moral obligation towards future generations, which is also a fundamental part of the other definitions explored here, but that this is not only unfeasible but also not desirable (Solow, 1991).

Solow argues that, if one adopts the notion of strong sustainability explained above, we are supposed to leave the world as we found it, which we are not capable of doing, meaning that we should not try to improve on it, which is not desirable. Instead he believe that the concept must be seen as an obligation towards future generations to make sure that they are as well of as we were, if not better. However, as we do not know anything about what technology will be available in 100 years, and even less about the preferences of the people that will be alive then, the concept remains essentially vague even with a definition that is based on the capabilities of future generations. The only thing that we can withdraw from the concept is that we have some kind of moral obligation, but that we do not know what that really means or if it is even desirable (Solow, 1991).

Although vague, Solow believes that the usefulness of sustainability lies in that it emphasizes that we are allowed to live our life the best way possible and exploit resources as long as it is not at the expense of future generations. Environmental quality can and should be treated as a kind of capital, and is hence subject to depreciation. The environmental capital depreciates as we pollute our environment, and investments can be made in this type of capital (Solow, 1992). Being perhaps somewhat of an inspirational source for Amartya Sen, Solow believes that resources are substitutable to each other, meaning that we do not owe any specific resources to the future generations. Therefore, the preservation of specific resources for the sake of sustainability is not a feasible argument (Solow, 1991).

Finally, a recent change in the field of sustainability research is that it is being increasingly recognized that environmental problems do not solely stem from industrial facilities with questionable practices but also from consumption and behavioral patterns at an individual level. It can be argued that these patterns provide the largest barriers to a sustainable society and should be the main focus of sustainability today, as is done by Berglund and Matti (2006). To overcome these barriers different consumer motives to adopting sustainable practices and how such initiatives are perceived must be understood. This calls for individuals acting as citizens, interested in the well-being of the society at large, rather than as consumers, with egoistic motives, which will be further discussed later on (Berglund & Matti, 2006).

3.1.4 Our definition

By examining different definitions of sustainability we are moving closer to creating our own definition. Although different in certain aspects, the perspectives have some common denominators and overarching attributes can be identified. First, sustainability is about taking responsibility for future generations and provide them with the same possibilities that we have. Second, sustainability is about preserving natural resources but also about creating capital and knowledge that can be useful for future generations. Some claim future generations should have access to the same *stock of natural resources* while others claim they should have access to the same *stock of assets*, meaning a combination of natural resources and capital. Third, sustainability is a balancing act. There is an inherent conflict between the goals of short-term well-being and long-term sustainability and those goals need to be balanced. Finally, the outcome and goals of sustainability appear to be rather unclear. One can focus on the needs of future generations and making sure that these can be fulfilled in the future. However, such reasoning requires an assessment of the needs of future generations that are hard to determine. Furthermore, by only focusing on the needs, the freedom and capabilities of future generations are neglected.

We agree with Sen (2013) and Solow (1991) in that the, from our experience, commonly used definition of sustainability as “leaving the world as we found it” is misleading, since this is neither a desirable way of living nor a feasible one. To some extent, sustainability has to be

about investing for the future and developing our society by using resources and replacing them. However, we believe the arguments put forward by Sen and Solow takes this reasoning a bit too far in the sense of assuming that our use of natural resources and hence what we need to substitute can be accurately measured. We are more prone to believe that deliberations has to be made when determining which resources can be replaced in a satisfactory way and which cannot. We therefore sympathize with the arguments put forward by Kuhlman and Farrington (2010), stating that some resources fall under the requirements of weak sustainability and other under strong sustainability.

Our definition of a sustainability initiative is:

An investment made in a project or product that aims to improve the sustainability of society by balancing the goal of development and short-term well-being with taking responsibility for future generations, either by encouraging a more restrictive use of natural resources (strong sustainability) or creating capital such as knowledge that can replace natural resources and improve the situation for future generations (weak sustainability).

3.2 The role of companies in sustainability

Since global companies can have a major impact on the global environment their practices is an obvious target for improving sustainability, and it is difficult to discuss sustainability without mentioning their role and responsibility. This section will briefly review how companies are commonly viewed in academic literature, and hopefully further justify our focus on the individual to achieve sustainability transitions by questioning the motives of corporate sustainability.

The increasing demands on companies to develop socially responsible practices provides proof that companies can no longer be seen as institutions with the only purpose of making money. They are a part of society, have the ability to affect many people by their actions and should therefore take responsibility (Amini & Bienstock, 2014). The classical article by Friedman

(1970), in which he claims that the only responsibility of companies is to make a profit, has been replaced by the concept creating shared value (CSV), introduced by Porter and Kramer (2011). Another relatively new phenomenon in the academic world is the stakeholder theory, which claims that companies need to consider how their actions affect stakeholders, meaning everybody who can affect or be affected by the company (Wilson, 2003). An influential article by Agle, Mitchell and Wood (1997) provides a framework for how to determine the salience of different stakeholder groups, and establishes that the saliency depends on the stakeholder's possession of power, urgency and legitimacy.

Furthermore, it is becoming increasingly common for companies to refer to themselves as "corporate citizens", implying that they act in a responsible way that does not hurt society. According to Jeurissen (2004), the notion of citizenship consists of four key orientations: a social contract, a joint responsibility, an active responsibility and the juridical state. Analogies of these key orientations can be created for companies as well: a social contract of business, an institutional responsibility, a precautionary principle and just international institutions. Viewing companies as corporate citizens is therefore not just a rhetorical framing but has real implications, companies who see themselves as corporate citizens need not only perform in financial terms, but also contribute to the society they are part of and take their share of responsibility (Jeurissen, 2004).

Considering this development, it is not surprising that companies dedicate more efforts and resources to corporate social responsibility (CSR) and many of them are attempting to incorporate sustainable thinking into their core business (Arora, 2013). This has led to a fairly large amount of research being conducted on the topic. Some of the more prominent work is the one made by Porter and Kramer (2011), but many other authors have acknowledged the need for CSR practices to be incorporated in the company culture and processes in order to be successful (Amini & Bienstock, 2014).

Porter and Kramer´s suggestion on how to restore faith in the capitalist system is the concept of CSV, according to which companies should attempt to incorporate CSR in their core business and make money at the same time as they are contributing to society (Porter & Kramer, 2011). In

other words, companies should look for win-win situations. So if these demands are put on companies today and companies increasingly comply with these terms, are they then contributing to sustainability? And is CSR sustainability?

Lo (2010) sees CSR as included in corporate sustainability, and companies must develop CSR practices before they can become sustainable. These practices are considered voluntary. Although it may be true that nobody forces the companies (even though the corporate governance codes in the UK now demand listed companies to report on the CSR of the company (Tricker, 2012)) to initiate any sustainability efforts, one could argue that it is hardly voluntary anymore due to the bad publicity companies receive if acting irresponsibly. In most literature on corporate sustainability, an underlying idea is that companies must perform well in economic, social and environmental terms (Amini & Bienstock, 2014). This links sustainability to the concepts of CSR and CSV, since both of these concepts are concerned with taking responsibility towards stakeholder-groups.

We find the concepts of CSR and CSV to be somewhat of a two-edged sword. It is hard to oppose that practices resulting from these concepts can result in an improved sustainability for society short-term. However, these practices remain grounded in the hunt for profits. In our definition of a sustainability initiative, in accordance with the Brundtland Report (1987), an emphasis is put on the inherent conflict between short-term well-being and responsibility for the future. CSR and CSV do not acknowledge this conflict, but instead focuses on the possibility to conduct profitable business and at the same time behave responsibly. CSV is seen as a way for companies to take responsibility without losing profits and CSR is frequently discussed in terms of how it can contribute to the business (improving brand, competitive differentiation, enter new markets etc.) (Arora, 2013). Sacrifices that companies have to make in order to be responsible are not the main issues of these concepts. Since they originate in the idea that companies can be responsible in a profitable way, they are only feasible when the incentive to make profit exists. Therefore we believe CSR and CSV practices initiated by companies are not necessarily sustainable, and corporate responsibility and sustainability should not be treated as synonyms.

Furthermore, we sympathize with the criticism on CSV provided by Crane, Palazzo, Spence, and Matten (2014), in which they suggest that companies adopting CSV can lead to a focus on finding win-win situations. These situations do exist, but if solely focusing on them there is a risk that we ignore the fundamentally complex problems that cannot be treated as win-win situations, but rather as dilemmas (Crane et al., 2014). Finally, as Boyd (2001) points out, it seems clear that trying to force companies to adopt certain practices will not lead to any changes that can be sustainable long-term. Sustainability must be about convincing, not coercing. No practices will be successful, if those who are supposed to implement them are alienated from the concept. The competitiveness of the market is the strongest incentive available and must be allowed to influence the actors, and the role of the government should be to set the framework and impose regulations that allow companies to be sustainable (Boyd, 2001).

As argued above, we believe companies undoubtedly play a role in society becoming more sustainable. However, whether or not the practices that stem from concepts such as CSR or CSV are truly sustainable can certainly be discussed. This turns the focus towards each individual and their own capacity, and the focus of this study.

3.3 The role of the citizens-consumers in sustainability

In today's society, two similar but also essentially different roles are played by all individuals: the role of citizen and the role of consumer. The main difference between these two roles is commonly described as a difference in interests, where consumers are egoistic and behave rationally, economically and utility wise, while citizens are also interested in the long-term well-being of society (Berglund & Matti, 2006; Schudson, 2007). A deficiency of such a distinction is the intuitively valid notion that people can be egoistic in some situations, but altruistic in others. With this in mind, it appears likely that people play different roles in different contexts (Berglund & Matti, 2006).

The role of citizen and the role of consumer are not invidious distinctions. Sometimes choices are made that reflect both roles simultaneously, in other words utility added and contribution to

society are both taken into account (Schudson, 2007). However, we do consider identifying the most important traits of the roles to be worthwhile, since understanding the roles individuals play in different contexts will contribute to a deeper understanding of consumer motives in terms of sustainable practices.

We have already briefly introduced the key orientations of citizenship as presented by Jeurissen (2004): The social contract, joint responsibility, active responsibility and the juridical state. The overarching theme for this definition of citizenship is a mutually beneficial exchange between the citizen and the society, in which the citizen promises to undertake activities to contribute to the general good for society and take responsibility for its further development. In exchange the society provides the citizen with certain benefits (Jeurissen, 2004). The important concern is to what extent citizens should take responsibility for the common good. Citizens follow the laws and rules imposed on them, however they have no obligations to incur any additional costs resulting from choosing an option that is clearly beneficial for society in terms of sustainability. This means that sustainability-initiatives with improved sustainability as the primary goal must add value in some kind of way in order for citizens to adopt them, and they cannot increase perceived costs for the citizens, in which case only those who have sustainability as a primary goal or incorporated as sub-goals will use the product or service (Solomon, White & Dahl, 2013). A prominent part of the definitions of sustainability we have explored is the notion that all people have a moral obligation towards future generations. If this obligation is taken into the role of citizenship, the responsibility of citizens may go far beyond the rules and regulations posed by the juridical state, in which case a reasonable consideration taken to the sustainability of our practices is part of the responsibility of citizens.

Initially, defining a consumer appears simple but upon further scrutiny, complexities arise. In the consumer protection law, a consumer is defined as “any natural person or legal entity to which a product or service offered on the market is addressed”. According to this definition, an individual is a consumer when using a product or service as the end user of the product (International Law Office, 2011). For the purpose of this study, such a definition is too broad and vague. First of all, we are concerned with when an individual goes from being just a citizen to being a consumer.

The role of consumers is often romanticized by scholars in the field of economics, while social critics see it as an inferior form of human activity, compared to the role of citizenship (Schudson, 2007). A common argument among critics of the consumer culture is that the consumer role may distract individuals from their more important role of citizenship. However, as argued by Schudson (2007), this argument can be considered invalid since it assumes people were interested in politics and contributing to society in the first place, and then got distracted by opportunities for consumption. Another way of seeing this is that individuals may choose not to partake in politics or similar activities due to the complexity and confusion often surrounding such initiatives, in which case the fault lies with the presentation and design of governmental efforts. Moreover, consumption and citizenship are not restricted to the choices made in certain situations, but also encompasses the values and lifestyle of the individual, since this also reflect their contribution to society (Schudson, 2007). It is reasonable to believe that most people do not reflect much upon their role of citizenship in their everyday life, but only in certain situations where they are forced to reflect upon their values and morals. In all other situations behavior comes rather naturally (Thorson, 2012).

Within the field of business and economics, seeing all individuals as consumers rather than citizens is a comfortable starting point. Doing this allows scholars to ignore peoples morals, attitudes and consideration of other people and build models based on assuming economic rationality among consumers and relying on external motivation for motivating consumers (Berglund & Matti, 2006). However, this standpoint may be dangerous when sustainability initiatives are designed and presented, since moral motives may be crucial when consumers participate in environmental activities. In fact, it has been proven that attitudinal factors do affect choices made by consumers regarding sustainable practices (Stern, 2000). Hence, the applicability of traditional economic theories is restricted since they do not account for moral motivations, and are bound by their (faulty) assumptions made regarding human behavior (Berglund & Matti, 2006).

3.4 Demand, goal setting and consumption, the determinants of success for a sustainability-initiative

In order to understand why some sustainability initiatives fail while others succeed, we must understand the consumers that the initiatives are directed towards. Consumers are customers, and customer behavior is defined by Solomon et al. (2013) as the study of the processes involved when people purchase, use, select or dispose of products, services, ideas or experience to satisfy desires and needs. In essence, anything can be consumed and anybody can qualify as being a customer. However, consumer behavior goes beyond customer behavior, as it involves the processes involved in the selection and evaluation process as well. It can be divided into a process consisting of prepurchase issues, purchase issues and postpurchase issues (Solomon et al., 2013).

A fundamental premise when trying to understand why consumers act in certain ways is that *consumers buy and/or consume products not for what they do but for what they mean.* Consumers want to be the best version of themselves and have a self-image they want to convey to the rest of the world, and consume products in a manner they believe will move them closer to this ideal-self. Consumers also have a perception of their actual-self, which is a more realistic picture of who they are and what qualities they have (Solomon et al., 2013).

In the case of sustainability initiatives, these can be presented as a way for consumers to move closer to their own perceived goals or as a goal that consumers ought to have to convey a specific self-image, such as being a responsible citizen. Consumers value certain parts of this self-image higher than other and wish to highlight these aspects by engaging in activities supporting these aspects. Some people might for example think that it is crucial that others see them as healthy individuals and therefore put much effort into what food they buy. In order for sustainability initiatives to be successful, the initiator must understand why consumers adopt certain consumption practices. The motivation is in turn heavily affected by the experience of the consumer (Solomon et al., 2013).

According to expectancy theory, developed by Victor Vroom (1964), consumption is most often based on a wish to achieve a desirable outcome rather than to satisfy a biological need (Van Eerde & Thierry, 1996). Consumers can reach an outcome in many different ways, and the way chosen is called a want. The goal for the initiator of a sustainability initiative is for their product or service to be the want. The strength of the motivation also varies, which affect the involvement in choices made (Solomon et al., 2013). One indication of involvement is the extent to which consumers partake in the information seeking process when choosing from different alternatives. Low involvement choices are made out of habit and are hence hard to affect, since the consumer is not very open to new stimulus. The involvement can be connected to the product or service itself and the functions offered but also to the situation in which the decision takes place. Situations where the consumer believes the choice made have a strong impact on their image usually have a stronger involvement (Solomon et al., 2013).

The extent to which sustainability investments generate satisfying rates of demand among the public is depending on whether or not they are moving the consumers closer to their goals and the key to reaching the goals is consumption. Consumption of the service or product offered must lead to the consumer moving closer to a preferred end-state (Bagozzi & Dholakia, 1999). Sometimes the thought of taking responsibility for the survival of future generations may be incentive enough for the consumer to prefer a product or service contributing to sustainability over one that does not. In this case, the goal for the consumer is to move towards an ideal-self by enhancing the image of a responsible citizen consuming in a sustainable way. This is an example of a non-conscious goal that arises due to emotional, moral, biological or ethical forces. Such goals can be activated unconsciously but pursued consciously. In other cases the incentives for choosing the sustainable option (assuming that people in general prefer sustainable option over non-sustainable ones, everything else equal) may not be the primary goal of the consumer or even be in conflict with other goals. Goals focus on a specific outcome that can be achieved through consumption. This outcome can be defined as: “a mental image or other *end point* representation associated with affect towards which action may be directed” (Pervin, 1989, p.474).

The decision-maker must create demand for the product or service by understanding the consumer´s goals in order for the sustainability initiative to meet its goals and targets. This is a complex task since consumers in general do not have the same goals, which creates a need for adaptive incentive structures. The lack of contribution towards the goals of the consumer can be compensated by adding value to the consumer through reward power (both in economical or psychological terms) or by reducing the costs associated with the activity (Bagozzi & Dholakia, 1999). It has been shown that monetary incentives can have a "crowding out" effect on other incentives, meaning that the values and morals of the consumers may come second to monetary incentives. When monetary incentives are introduced, and eventually crowd out other incentives, the original incentives rarely return. In other words, even if consumers had incentives to do something before monetary rewards were introduced, it is unlikely that the consumers will perform these actions if the monetary rewards are removed. This means that introducing economic incentive structures to stimulate sustainable practices may be a risky strategy, since it might actually lead to less people adopting sustainable practices long-term (Berglund & Matti, 2006).

In light of the discussion regarding consumer goals and their origin, the notion of citizenship and the role of consumer-citizens in changing their lifestyles, it appears evident that sustainability initiatives must be directed towards affecting the practices, lifestyles and preferences of the consumers. This leads us back to one of our original concerns: what are the incentives of consumers and how are they affected? One approach is that social change can be brought by technological systems (Spaargarten & Oosterveer, 2010). Since people tend to stick with technologies they adopt, sustainable technological systems can bring substantial improvements. The logic is that people are unwilling to change and getting people to adopt new practices will shift their incentives into wanting to stick with this practice. However, the initial problem of changing customer preferences remain. The fact that consumers tend to get "locked into" certain technologies may still present opportunities to introduce new practices that are connected to the old system or mutually dependent on it. Also, the introduction of new practices can affect the future development of an existing system, which can cause consumers that sympathize with this system to become more sustainable. Lock-in mechanisms are hence interdependencies between human agents and physical, material objects (Spaargaren & Oosterveer, 2010).

This means that the success of sustainability investments and their ability to affect consumer incentives and goals may depend on their fit or misfit with existing technologies, products or services. This can also be connected to the importance of habits, which is a causal factor for pro-environmental behavior according to Stern (2000). Important to notice is that although the success may critically depend on the fit with existing technologies, this does not imply that the original technologies are sustainable in their character, even though the products or services resulting from a sustainability initiative that fits with them are.

3.5 How do we make decisions?

So far we have established that in order for sustainability initiatives to reach their targets and goals it seems critical to understand the consumers´ preferences and goals. In order to do this one must also understand how the individual make decisions. The dominant theory in the field of economics for predicting behavior has historically been the expected utility theory. However, this theory has received criticism for being based on assumptions that are frequently violated in real life (Tversky & Kahneman, 1986). The assumptions underlying the modern theory of decision making under risk are: cancellation, domination, transitivity and invariance. Cancellation means that states of the world that produce the same outcome regardless of choice are eliminated, domination means that the superior option will be chosen every time, transitivity means that the evaluation of an option is not dependent on other alternatives available and invariance means that the framing of a problem will not affect the choice (Tversky & Kahneman, 1986).

Expected utility models are concerned with how individuals choose between different risky alternatives that can have either single or multidimensional outcomes. Expected utility theory claims that *people maximizes expected utility, not monetary value.* In the beginning, the model was merely descriptive, but it has over time proven to be a rational decision criterion, that can be derived from axioms. The claim that the theory is making is that ranking alternatives according to their expected utilities will represent the actual preferences of the individual. The basic logic is

that the choice is a function of the probabilities and utilities of outcomes. Different variants of the model exist based on the ways in which the utility is measured, which transformations of probabilities are allowed and how the outcomes are measured (Shoemaker, 1982).

The empirical research conducted by Tversky and Kahneman (1986) has shown that by framing and presenting problems in different ways, violations of the assumptions of cancellation and dominance can be produced. These assumptions seem to be descriptively invalid although normatively essential. The theory is therefore unable to accurately predict the actual behavior of individuals in real-life situations. Schoemaker (1982) showed similar findings and established that at the individual level, maximization of expected utility is an exception rather than a rule. His explanation to these observations is that people generally do not structure problems as carefully as the theory predicts nor do they process information (in this case the probabilities) in the way that the theory predicts. This restricts the usage to well-structured, repetitive decisions (Schoemaker, 1982).

Tversky and Kahneman instead propose the use of prospect theory, which contributes to predicting how people actually make choices instead of how they ought to make choices. It takes a starting point in a neutral equilibrium, and decisions made then produce positive or negative deviations from this equilibrium. The decision-making process is divided into two phases: a preliminary analysis in which framing and presentation of the issue are taken into account and an evaluation phase in which the best option is chosen. The theory also predicts more extreme reactions to avoid losses than to possibilities for gains, and that marginal changes produce decreasing effects the further from the natural reference point in either direction. Two fundamental differences between expected utility theory and prospect theory is that prospect theory claims that added value to individuals is determined in terms of gains and losses, not final assets, and that decision weight is what determines the value of an outcome, not the probability. Prospect theory does not see individuals as rational beings and does not attempt to describe how people should make decisions, but rather how they actually do it (Tversky & Kahneman, 1992).

Apart from the previously mentioned violations of the assumptions on which expected utility theory is built, the source of uncertainty appears to affect the way in which individuals make

choices. For example, it has been proven that people in general prefer risky alternatives in a field where they have competence over alternatives in an area where they do not, no matter the probabilities. Also, when analyzing decisions under uncertainty, risk aversion is most often assumed although some situations have proven to produce risk-seeking behavior. Examples include situations where there is a possibility of a large gain or when people choose between a sure loss and a probability of an even greater loss (Tversky & Kahneman, 1992).

Moreover, it is entirely possible that individuals themselves are not aware of the decision rules that they act according to. If this is the case, predicting the utility function of an individual in a theoretical fashion may prove extremely difficult (Shoemaker, 1982).

3.6 Utilitarianism and Predicting Behavior

In order to understand how people choose between options we must understand how utility is added for particular individuals and what the term really means. In terms of sustainability initiatives, especially those with profit not as the primary goal, the link between perceived added utility (value) and the, in the words of Amartya Sen (1979), "goodness of states of affairs" is of particular interest. Sen establishes that, according to welfarism, two states that add the same amount of utility to an individual should be considered equally good and if one of those states adds more value to other individuals, this option should be preferred. This concept is referred to as paretianism (Sen, 1979).

The common denominator between prospect theory and modern theory of decision making under risk is utilitarianism, although prospect theory is concerned with individuals *perceived* utility rather than individuals making rational choices (Tversky and Kahneman, 1986). Utilitarianism means that when choosing between different alternatives, an alternative that yields at least an equal amount of utility as any other of the alternatives available, will be chosen. Utilitarianism is derived from two principles: Act consequentialism and outcome utilitarianism (Sen, 1979). Act consequentialism is concerned with which actions will be taken and why, and states that an action is preferred if it yields an outcome that is at least as good as any outcome resulting from

any other action. Outcome utilitarianism complements act consequentialism by defining what is a preferred outcome, and states that an outcome is at least as good as another outcome if the sum of individual utilities produced is equal or larger than the sum of individual utilities produced by any other outcome (Sen, 1979).

According to Sen (1979), utilitarianism can be split into sum-ranking and welfarism. In utilitarianism, utilities are expressed in sums. The sum-ranking of alternatives leads to an analysis that is insensitive to inequalities of utilities. This has consequences when discussing welfarism, which is an approach for judging "states of affairs". Welfarism states that the alternative providing the largest sum of individual utilities is the superior option in order to maximize happiness and well-being. However, it does not account for non-utility information that can be used in making decisions. If two alternatives are equal in terms of utilities, they are equally good according to welfarism (Sen, 1979).

As individuals, we are free to choose between alternatives whatever way we want. However, conditions that does not affect the utility may exist that would make most people consider one alternative superior to the other when these conditions exist, but worse when they do not. Furthermore, the distribution of utilities can be considered relevant. The logic behind progressive taxation provides an example of this. It is plausible that one taxation percentage could provide larger sums of utilities but another, non-utility, goal is to attempt to distribute the wealth equally among individuals in society. This type of reasoning is not taken into account in welfarism, which only considers the sum-ranking of alternatives. Non-utility information cannot have any role of its own in welfarism (Sen, 1979). The ranking needs to be consistent, meaning that if the sums of utilities are the same in two situations, the ranking of the corresponding alternatives needs to be the same regardless of the conditions.

3.7 Cognitive dissonance theory

We believe another important theory for understanding how consumers form goals and what motivates them in terms of sustainability is cognitive dissonance theory. The theory, developed by Festinger in 1957, states that all individuals have certain beliefs and their view of the world,

as well as the behavior of others and themselves, is represented as mental cognitive images. Everything that happens is interpreted and transformed into cognitive representations on an individual level, and the actions of the individual are a result of these interpretations (Higgings, Kruglanski & Van Lange, 2012). The theory predicts a feeling of discomfort whenever behaviors, attitudes or beliefs are in imbalance, which causes individuals to act in a way that restores this balance. This serves as a driver for consumers to consume products or services in a manner that moves them closer to their goals, which depend on their mental interpretations. Situations where beliefs, attitudes or behavior are in imbalance are referred to as cognitive dissonances (McLeod, 2008). In terms of sustainability, an example could be when an individual decides to throw batteries in the regular trash bin, although he knows this is harmful to the environment.

In his strive for balance, the individual faces three options to dissolve the situation. He can change his behavior, he can change his attitudes or beliefs or he can attempt to acquire more information to justify the actions (McLeod, 2008). The person throwing batteries in the trash can for example decide to stop doing this, question if it really matters what he does when the big companies pollute the Earth every day or find research that states that batteries are not so bad for the environment. This can give rise to irrational behavior aimed at maintaining a cognitive consistency. The idea that we seek consistency when two cognitions are inconsistent is called principle of cognitive consistency, and the state when cognitions are in balance is called state of consonance (Gawronski & Strack, 2012).

According to cognitive dissonance theory, attitudes and beliefs lead to consumers having certain goals, but these goals may be in conflict with other goals. Combining this with consumer behavior theory, attitude changes or beliefs may stem from consumers having a strong desire to pursue internally activated goals, such as living a comfortable life, which may lead to them not wanting to put in the extra effort to contribute to sustainability (Solomon et al., 2013). To achieve a state of consonance, the consumer may then diminish the impact he or she has by arguing that their behavior does not matter anyway, and abandon a previous belief that acting in a sustainable manner is important. This leads to the consumer acting in an unsustainable manner against his own conviction.

3.8 Self-determination theory (SDT)

Another theory that will help us understand how consumers make decisions when it comes to sustainability is self-determination theory. The behavior of individuals in terms of sustainability is controllable by the individuals themselves. The success of sustainability initiatives hence depends on the individuals and their behavior. Self-determination theory (SDT) attempts to explain the motivational factors behind maintaining behavior over time, and has been applied mostly in understanding patients within healthcare (Deci, Ryan & Williams, 2008). The process of changing behavior can be divided into two phases: initiating and maintaining change. The initiation phase is well documented and can be approached in a number of ways such as introducing incentives, pressure or rewards. The maintaining phase is less well documented and the focus of self-determination theory (Deci et al., 2008).

The theory acknowledges that people are more likely to change their behavior if the changes are promoted by people they trust and want to feel connected to. Furthermore, much behavior connected to well-being, health and taking responsibility is not inherently enjoyable. Walking longer to recycle trash or going to the gym are examples of such activities. Since this is the case, behavior changes that are solely motivated by controlled motivation such as rewards or punishment are unlikely to be maintained over a long period of time (Deci et al., 2008). Critical for maintaining behavioral changes is thus that the motivation is autonomous, meaning that the individual identify with the importance of the change and align these values with his or her lifestyle patterns. This can be done by helping the individual identify and overcome barriers and finding ways to change lifestyle in a preferred manner. The individual must also feel that he or she has the competence to commit to the change (Deci et al,. 2008). This is done by offering feedback and aiding the individual when competence-related barriers emerge. In terms of health, the individual must feel capable of actually making a change in lifestyle that make an impact on his or her health. In terms of sustainability, the individual needs to get feedback suggesting that the efforts made actually makes a difference (Deci et al., 2008).

3.9 Two previous studies on adapting sustainable practices

Since one of the main purposes of this paper is to "contribute to understanding how and when consumers adopt sustainable practices ", we obviously believe this is a topic that has not been adequately investigated. Below we attempt to review some previous research made on this topic and the findings made.

A fairly frequently cited article, that to some extent asks the same questions as this paper, by D´Souza, Cyphers and Phipps (1993) studies the adoption of sustainable agricultural practices and attempts to identify factors affecting the adoption. Factors affecting technology adoption are divided into four categories: institutional, human capital, structural and environmental.

The study establishes that education is positively correlated to adoption of sustainable practices and awareness of environmental conditions that can be affected by adoption is also positively correlated. In the case of agricultural practices, it is likely that awareness about environmental conditions can have significant effects, since these conditions often also affect the living conditions at the farm. Examples of such conditions are contamination of groundwater, which can be cleansed by adopting new practices. Awareness comes across as a major determinant of whether or not new technology is adopted (D´Souza et al., 1993).

Furthermore, the study shows that age affects the adoption of new technology, younger people tend to adopt new technology to a larger extent than older people. The authors conclude that groundwater testing on site may help create awareness and therefore stimulate adoption, and may be especially efficient if younger, well-educated farmers are targeted. Although focus is put on characteristics of the adopter rather than conditional factors that may affect adoption, the authors also presents "why factors" that might affect adoption. It is suggested that adoption depend on demand from customers, opportunities to save costs and personal beliefs (D´Souza et al., 1993).

Even though the study conducted by D´Souza et al. (1993) is focusing on sustainable agricultural practices and can be considered outdated, we find the results relevant for understanding adoption of practices resulting from sustainability initiatives. Although clearly the factors affecting the

adoption of sustainable practices needs to be further investigated, the study was interested in the same phenomenon as we are and we therefore believe it is important to take the results into consideration. However, it should be noted that the study by D´Souza et al. had a deductive, quantitative approach and differs from ours both in geographical and demographical terms.

Another study on consumer adoption was conducted by Berglund and Matti (2006). They focused on determining which motivations and value-systems were most frequently used for environmental policies in Sweden and established that external motivations are highly relevant in the Swedish context. The role of citizens tends to be overlooked and individuals are seen as consumers, which react to monetary incentives and behave rationally. In other words, initiatives are designed in order to create a positive outcome for the consumer, which will induce the consumer to partake in sustainable practices. The study had a deductive approach, and the data-collection was performed through the use of quantitative methods (Berglund & Matti, 2006)

4. Preliminary theoretical framework

Based on our literature review, we now stand ready to construct a preliminary theoretical framework that has served as guidance for our empirical study. The purpose is to provide us with a deeper understanding of what may cause changes in consumer behavior before conducting our actual study, it does not present any hypotheses but rather helps us frame our study and construct interview guides. The framework is presented below and is an attempt to combine theories from different academic fields that we believe have an explanatory potential when trying to understand what stimulates and creates demand for sustainability investments.

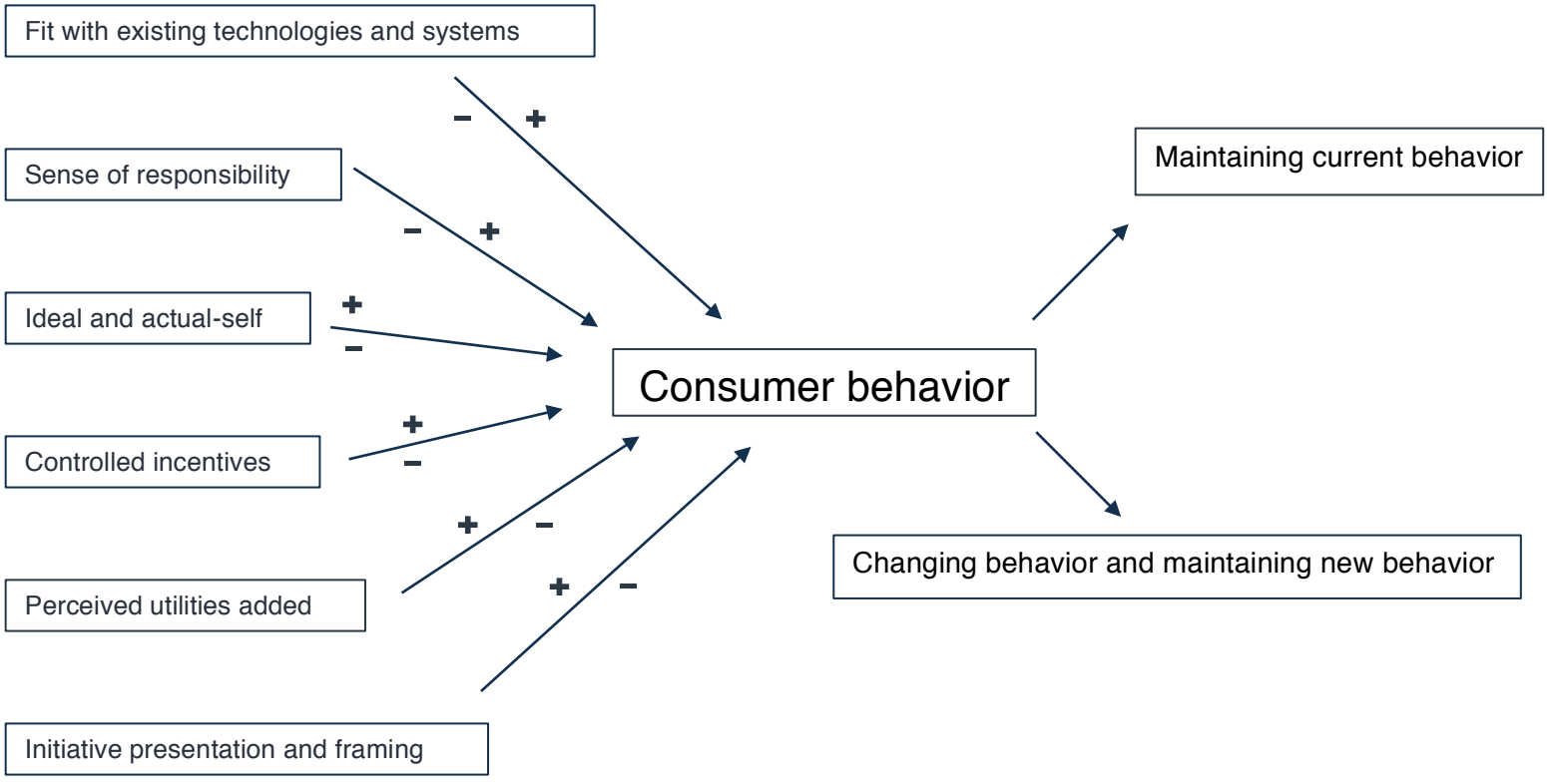


Figure 2. Preliminary theoretical framework

5. Empirical findings

5.1 Focus groups

The focus groups conducted provided us with some interesting results. As described in the method section we asked the participants to choose between different statements (see appendix 1) that represented different views on sustainability both in order get the participants to start thinking and to find out which definition appealed most to the consumers. Interestingly enough, when comparing with the definitions investigated in the literature review, almost none of the participants thought that sustainability was primarily about technology and development but rather about preserving the natural resources that currently exists. The statements representing a definition of sustainability based on providing future generations with the freedom to live in a world with equal opportunities that we have had also received little sympathy. The results from this experiment suggests a traditional, perhaps outdated in terms of trends among researchers, view on sustainability where the main task is to make sure that the world stays the same (see appendix 5 for chart illustrating the results of the experiment). The following discussions supported this fact, and little discussion regarding replacing the current natural resources took place. One of the respondents stated that:

> *"I believe we should leave the world as we found it, I want my kids to be able to go skiing in the Alps just like I did. We have to leave enough for future generations."*

When asked what they thought of when they heard the word sustainability, the respondents talked almost exclusively about the environment and nature. No indications that suggested a way of thinking that touch on the triple bottom line concept could be found. After a while, one of the respondents in one of the focus groups suggested that sustainability could be about almost anything since everything has to work in the long term in order to survive. The other respondents agreed, but then found it difficult to develop on this and quickly returned to talking about carbon dioxide and the impact of the manufacturing industry. Overall, much of the discussion regarding what sustainability really is orbited around large organizations and their responsibilities.

Contradictory to their perceived view of sustainability as a concept, it appeared as if the respondents did not think that they would have to change their behavior in the future, and instead believed that somebody would eventually find a solution to the environmental problem. They mentioned several times that "something has to happen" but agreed upon the fact that it is implausible to believe that people will change their manners to the extent they believed was needed. One of the respondents explained it as:

> *"It´s really quite simple. There are two options, either we find new ways so that the rest of the world doesn´t have to live in the same way that we in the West have, or all of us in the West change our living standard to like 25 % of what it is now, and that´s never going to happen"*

The respondents frequently returned to the fact that although they were aware of how important their individual habits are for the environment, they doubted that it would have any real impact if they changed their way of living. An interesting phenomenon that continuously occurred was that it seemed like all respondents were aware of the things they were "doing wrong" and how bad it was, but at the same time, they complained about not getting enough "practical information" about what the real implications of doing certain things differently would be. Also, most of them stated that society provided them with enough opportunities to live in a sustainable manner, but that they were too lazy and lacked interest.

These findings suggests that consumers are aware of their own behavior and how they could change them, but that they often feel that acting in a sustainable manner does not add enough utilities compared to doing things "the easy way". The reason behind this appears to be that the respondents do not believe changing their behavior will have an actual impact. To further complicate, this attitude does not appear to stem from a lack of knowledge about how to act sustainably, which means that educating citizens about sustainable options and why they are sustainable will have little effect, since lack of viable alternatives is not the problem (at least not in southern Sweden, see discussion on ecological validity). A more effective way of encouraging

consumers might be to try to connect individual practices to real-life implications. As one of the respondents stated:

> *"If organizations were to tell me that if I change from buying "normal" to ecological food and that this would save five children, no one would have continued buying normal food".*

However, the respondents also suggested that such reinforcement and information most likely only would produce short-term changes in behavior, since whether or not the sustainable alternative is chosen or not depends on whether or not the sum of utilities are larger than if the unsustainable alternative would be chosen, which depends on the situation. One of the respondents suggested that:

> *"Every time you have seen a nature documentary or something like that and see what is happening you are like, starting tomorrow I will do everything right! But that only lasts a couple of days because when you get home from work tired or have a hangover you choose the easy way, and then you fall back into old habits".*

The respondents were also asked to discuss what motivates them when they do in fact act in a sustainable manner, and three different factors emerged as explanations: situational factors, a will to identify with or be a part of a particular social group, and a will to take responsibility as a citizen. The strongest of these explanations clearly appeared to be situational factors. Several of the respondents claimed that they often act in a more sustainable way if they have guests over, if they are at somebody else´s house or if they believe that people will notice what they do. One person said that:

> *"I sometimes feel skeptical about what I really can contribute with. It is easier to throw a can when you see a lot of other cans in a regular trash bin but if there are no other cans in the trash bin you don´t want to be the first one"*

This provides an example of a decision based on non-utility information. Furthermore, several respondents suggested that their behavior in terms of sustainability was to a significant extent motivated by a will to belong to a particular social group. One of them claimed that she had almost stopped eating meat completely due to the fact that several of her friends in her dorm, with whom she cooked, had recently become vegetarians. Another respondent said that some of her oldest friends had become really interested in the environment lately and it "had become a thing" in their social group to act in a sustainable manner:

> *"My friends make me feel really bad if I don´t recycle and stuff, I never do it when they are not around but they hassle me if they see that I don´t do it"*

Regarding the perceived responsibility to act in a sustainable manner to fulfill their duties as citizens, this clearly came across as the weakest explanatory factor of the three. In one of the groups, there was a disagreement between the respondents regarding whether or not they had any responsibility at all, and the group was divided into those who thought that since they have so little impact on the environment regardless of what they do it should be the manufacturing industry and companies that have responsibility, those who thought they had no responsibility since they can do whatever they want unless it is illegal, and those who thought they had a responsibility to act in a fairly sustainable way, although they had troubles determining what this responsibility really meant in practice. One of the respondents belonging to the group who believed they had a certain responsibility said that:

> *"I separate my waste at source at home, but I don't really think it makes a difference in the big picture, we are not going to save the world by sorting our waste when the US won't sign the Kyoto protocol for example. I just do it because it makes me feel a little bit good about myself and it´s not that difficult. I think that nobody wants to be the worst so they do the bare minimum, I do what´s "normal", even though I don´t really care".*

Apart from these three explanatory factors, indications that suggested a will to act sustainably if this alternative both had some benefit for the individual and also contributed to sustainability were given:

"Sorting waste by source is just plain boring, and I´m too lazy to do that, honestly. But ecological steak tastes better than other steak and if I buy sustainable products I don´t have to get any weird substances in my food, so I´m willing to do that".

Finally, the groups talked about whether or not it was more expensive to adopt sustainable practices, and concluded that this was the case while referring to ecologically produced meat and other products. It did not appear as their reluctance to spending more money on these products was based on not affording this but rather, as mentioned earlier, on a skepticism regarding what difference it really makes, even though once again they appeared to be aware of why it is more sustainable to buy ecological products.

"I think everybody wants to do the right thing and choose the sustainable alternative. But it´s a little bit more difficult and a little bit more expensive and that´s enough to change your mind since you know that it doesn't really make an impact. I mean it does make an impact, but not in the big picture."

This suggests that citizens might be willing to pay more for sustainability if the offer is more appealing in their eyes. It must be noted that the participants in our focus group likely came from a background that makes it possible for them to spend a little extra money on sustainability, while this is obviously not the case for all groups of people around the world.

To summarize the findings from our focus groups, it appeared as if consumers are aware of how they can improve their practices in terms of sustainability, but their interest is rather mellow and they doubt that changing their behavior will have any real impact. They do believe they have the opportunity to act in a sustainable manner and do not lack information about what impact their actions have, but are not willing to make any significant sacrifices to act in a more sustainable way. The main motives for acting sustainably instead appeared to be situational factors, a will to identify or be a part of a social group, and a sense of responsibility.

5.2 Sustainable Hökarängen - focusing on the individuals

The case that has been used in this study is the project Sustainable Hökarängen ("Hållbara Hökarängen"). Sustainable Hökarängen is a project aimed at improving the sustainability of the 1940s suburb Hökarängen, located south of Stockholm (Hållbar stad, 2011). Hökarängen is in need of reconditioning, which has been used as an opportunity to improve upon the energy effectiveness of the heating, electricity, lighting etc. of the apartments in the area. The project acknowledges that these improvements are only one variable in the equation that needs to be solved in order to truly improve the long-term sustainability of an urban district. The other one is the people that live in the area.

In the project, emphasis is put on the fact that houses are not only buildings that can be sustainable to a particular degree, they are also homes (Hållbara Hökarängen, 2012). The project focuses on how strategies can be formed for projects aimed at creating new, sustainable urban districts. The goal is for Hökarängen to become a role model of how an urban area can be transformed to become more sustainable by involving the people living there. The project was estimated to reduce the energy usage in the area by 35 percent, and the carbon dioxide emissions connected to the energy usage by 40-50 percent. These improvements and involvement of the citizens were planned to take place alongside the reconditioning of the real estate and efforts to improve upon the waste management and energy effectiveness in Hökarängen (Sustainable Innovation, 2013). The project runs from 2012 to 2015 and four organizations are involved: Sustainable Innovation AB, AB Stockholmshem, Stockholm Environment institute, and the energy department. The budget was set to 38.7 million SEK, where the department of energy sponsored with 9.6 million SEK (Hållbara Hökarängen, 2012; Energimyndigheten, 2015).

We found this project interesting for several reasons. First of all, the focus on the consumers and their importance for sustainability projects is consistent with what we have argued throughout this paper. Secondly, the project takes place within what we have defined as a city, and since we have argued that the battle for sustainability stands in the cities, this is also an advantageous characteristic. Thirdly, we are interested in why and when consumers adopt sustainable practices but also to some extent what the design of sustainability projects currently look like. Since the

project has been focusing on consumer behavior and how projects in general can affect the interest in sustainability, comparing our findings on consumers´ attitudes to sustainability and their motivations with the experiences of the decision-makers behind this project may provide interesting results. Lastly, since this is a project aimed at changing the behavior of the consumers, it provides a good opportunity to observe how consumers respond to such proposed changes in their everyday life. Projects that focus on improving upon technology or production practices are not as easily observed from a consumer view as projects that actually demand something from them.

Unfortunately, it was not possible to interview consumers living in Hökarängen, since the project is in a critical phase where feedback is collected to summarize the results of the project and draw conclusions. The people behind the project therefore did not want us to pose any further questions to these consumers since much has been asked of them throughout the project, and asking for more contributions could negatively affect the ongoing feedback process. However, project leaders from all organizations did agree to answer our questions themselves.

5.3 Semi-structured interviews with representatives from Sustainable Hökarängen

To investigate how well the observations regarding consumer motivations from Hökarägen correspond with our findings we carried out interviews with the project leaders in all three organizations that have been actively involved in the project: Stockholms Hem, Sustainable Innovation AB and Stockholm Environment Institute. We were interested to see whether they have made the same observations we have and, if not, investigate why the findings might differ.

In line with our observations, the respondents believed that people in general are rather uninterested in acting in a sustainable manner if it involves making any sacrifices in terms of utilities. There are consumers who have a genuine interest in sustainability, and those individuals often do more than what is demanded. However, these consumers are in minority. The majority of consumers are willing to act in a sustainable manner only if the infrastructure needed is in

place, and if it requires little extra efforts on their part. The project leader Åsa Stenmark at Stockholms Hem explains consumers´ attitude towards sustainability as observed in Hökarängen:

> *"People believe it should be easy to do the right thing, you shouldn´t have to learn a new system, if it´s easy people are more than willing to contribute. Recycling cans has become an established practice in Sweden, but sorting waste appears to be more difficult. I find this interesting, sorting waste is also fairly straight forward."*

Stenmark means that knowledge and awareness are two explanatory factors when it comes to sustainability. It is critical that projects contribute with these two factors in a manner that interests the consumers. Some consumers are interested in sustainability while others are not, and this is hard to do much about. No matter how much information regarding the need for sustainable practices the project contributes with, some consumers will remain skeptical and unwilling to change. As mentioned earlier, in order for sustainability projects to truly have an impact in the striving for more sustainable cities, more citizens than the ones that have an interest in sustainability must be reached. As Thomas Sundén, project leader at Sustainable Innovation center, described their work in Hökarängen:

> *"The networks and commitments concerning sustainability in Hökarängen were easy to find, the real difficulty is to reach the outer rings of people, beyond those who are already initiated".*

One way to tackle this problem, that appears to have been successful in Hökarängen, is to initiate subprojects that speak to consumers on other basis than sustainability, but still get them involved in the project and contribute to the end goal of sustainability. For example, courses in vegetarian and ecological cooking have been held in Hökarängen and have been very popular. The actual environmental impact resulting from these courses is small but they serve a larger purpose since the participants can spread the word, and contribute to sustainability in a way that suits them. The courses, and other related initiatives, have received massive interest from the local residents but, according to Stenmark, most of these people are not very interested in sustainability, but in farming and cooking. As Sundén put it:

"The key is to not approach energy-questions directly. It doesn´t matter what end you start from, if you start with the things that really interest people, you will eventually reach the "boring issues". Ask them what they are interested in and let them come up with their own ideas".

In Hökarängen, the property owner Stockholms Hem has had a fundamental role in the project. Before launch, an extensive dialogue with the residents took place in order to identify interests and existing assets in the region. Throughout the project, focus has been on utilizing existing factors that may facilitate a sustainability transition, which has been important for establishing stable information channels within the community as well as involving consumers without a real interest in sustainability. Establishing channels is important for sustainability projects in general and takes a long time, which according to Stenmark is a problem that many projects wrestle with.

"The project has been around for a long time, and it is only lately that the information channels have been truly established. Now would actually have been the perfect time to start the project, when we can reach a lot of people".

Judging from these observations, it appears as a way of creating interest for sustainability initiatives is to design projects in a way that does not primarily speak to the consumers in terms of sustainability, but in terms of something that interests them. Consumers can be taught how to act sustainably within fields that they are interested in. It is important to emphasize that all decisions made are active decisions that have some kind of impact. Furthermore, Stenmark pointed out that a function of the project also has been to nurture, encourage and support local initiatives that otherwise may go unnoticed. In Hökarängen, a new, local organization called "HOPP-bloggen" (focusing on the sustainability transition in Hökarängen) has been started up recently by two people with an interest for sustainability. Both of these individuals have lived in Hökarängen for a long time but never knew the other person existed, but through the project, and the initiatives resulting from it, they got together and now work for a more sustainable Hökarängen. Such initiatives are important to nurture. Stenmark explained:

"Our project will not be around forever. Actually, it will be over in a couple of months. The last part of the project will focus on reporting and handing over the initiative to local ambassadors that can continue our work, which is why it is important to nurture the local ideas and interests."

For the project in Hökarängen, improving the energy effectiveness was an overarching, important goal. As we expected, it seems like this question is less embraced by consumers. According to Stenmark, many of the consumers feel like the incentives for trying to improve their own energy effectiveness are very small.

"During the course of the project, it has been difficult to find people that want to work with their energy effectiveness. People simply are not that interested, nobody signs up voluntarily".

Sundén also named reaching the energy effectiveness goals as the hardest challenge during the project:

"Pure energy efficiency is not what interests people the most. We have chosen to broaden the term energy effectiveness and instead talk about resource use, and by counting everything we do in the area and the resources used we will probably be able to reach our goals, but the energy questions have been a challenge".

Katarina Axelsson, who was the project leader at Stockholm Environment Institute, also named the energy effectiveness issue when talking about challenges:

"It has proven to be a challenge to create engagement for these issues among the households in Hökarägen, as there are few incentives or tools available for these households to save energy. It is not really possible for them to see the impact of their savings".

Improvements in terms of energy effectiveness have been observed among households that participated in an "energy effectiveness competition", but apart from this the results in this area have been rather mellow. This suggests that consumers need a lot of encouragement in order to truly engage themselves in this question, and there is a risk that the households that participated in the competition will fall back into their old habits once the project is over. In line with the observations made in the focus groups, situational factors can be a source of sustainable practices, but may not be viable in the long run.

5.4 Bokompakt, a shift in focus from the buildings to the individuals

When deciding upon suitable respondents for our in-depth interviews with consumers, we wanted to find people who had recently made a decision regarding sustainability. The reason for this is that we believe that these people will be better at remembering which factors affected their decisions and have a clearer view of the concept as well as their own attitudes and opinions. We identified such a population as the people that in November 2014 moved in to the new apartment complex "Bokompakt" in Lund. Bokompakt has been a project aimed at building small student apartments of only 10 m^2 that are efficient both in terms of how space is used as well as in terms of energy efficiency. The apartments are in principle self-sufficient in terms of energy thanks to good isolation, solar panels, carefully chosen materials for construction and warm-water switchers that encourages awareness regarding consumption (Skånskan, 2014). By switching KPI´s to indicators focusing on measuring the environmental impact per inhabitant rather than the environmental impact per m^2, the project is also acknowledging the importance of the individual dimension when striving for sustainability (Skånskan, 2012). The project also encourages individuals to take additional steps towards changing their behavior in terms of sustainability by providing opportunities to for example grow their own vegetables etc. (AF Bostäder, 2015). By interviewing people living in these apartments we have been able to study which factors have been most important for the consumers when adopting more sustainable practices as well as the decision making process resulting in the choice made.

5.5 Semi-structured interviews with residents in Bokompakt

The purpose of the individual, in-depth interviews with consumers was to study the factors that we identified during the focus groups and the case study in more detail. We wanted to understand if these factors have the potential of determining whether or not consumers adopt sustainable practices. Sitting down for a longer period of time with a single respondent allowed us to gain a deeper understanding of the causalities in play and provided us with more thorough answers from the respondents. We put much focus on, apart from why they chose to live in a climate-smart apartment and what factors motivated that choice, what they thought made them act in a sustainable manner, whether or not they believed they lacked information regarding sustainability and what their definition of the concept was. We also focused on whether situational factors affect their actions, their thoughts of their own perceived responsibility to act in a sustainable way and to which extent a cognitive dissonance in situations where sustainable alternatives are not chosen could be identified.

The interviews conducted provided us with similar results as the focus groups did which further increases the validity and reliability of the results. The general apprehension among the respondents was that the fact that the apartments are climate smart and energy effective were not critical factors when finding a place to live. In fact, a majority of them were not aware of this until they had already decided that they wanted to move there. Rather, it appeared as if the fact that they liked the apartments and the low cost were the primary determinants.

> *"I didn´t know much about the project when looking for a place but I thought the apartments looked nice. I think I had seen somewhere that they are supposed to be climate-smart but that was not what made me move here, I saw it more as a bonus".*

Regarding their view of the concept of sustainability, the respondents appeared to have a similar view as the participants in the focus groups. They spoke almost exclusively about the environmental dimension and when asked if it was more to sustainability than preserving natural resources only one of the respondents, who happened to be a student in environmental management, thought this was the case.

Somewhat different from the focus groups, all of the respondents claimed that they did believe they have a responsibility towards society to act in a sustainable manner. However, it appeared as if this responsibility mainly was about making aware and sustainable choices when easily accessible information is communicated and choosing the sustainable alternative is comparable to the unsustainable alternative in terms of accessibility.

> *"I don´t really think about sustainability that much in my everyday life, I do the things that I always do like trying not to take too long showers and so on. But I don´t really look for information about what effect it really has and sometimes I´m not really sure about what alternative is better, I guess it shouldn´t be that hard to google it but I have other things on my mind".*

Also, at least two of the respondents thought that situational factors did affect the way in which they act in terms of sustainability. One other respondents appeared unsure, but none of them ruled out that this could affect their behavior and all of them thought that if it did, it made them act more sustainably when around people or in situations where such behavior can be considered a norm or if the actions are highly visible. Especially one respondent said that it was important to her that other people thought of her as a sustainable person since she often brings up the subject with them and consider such behavior to be a part of who she is as a person.

> *"I try to act fairly sustainably all the time, or at least do my share, of course you can always do more and I know several things that I could change. But when I am with other people who I often talk about this with I really try to do everything right, I guess I think about it more than when I am at home, I want them to see me as a responsible person".*

When discussing how they normally act in terms of sustainability, the respondents expressed a wish to be more sustainable in their everyday life and a majority gave examples of things they could do differently. They had difficulties explaining why they currently did not do these things but the most common explanations that emerged were indolence and a lack of knowledge about the actual impact of the individual choices. However, some answers that were given implied that

the extent to which these "obstacles" to acting sustainably determined the choice made varied from time to time, which appears rather strange since a lack of information would remain an obstacle until new information is obtained. This may suggest that indolence and non-utility information might be the most prominent determinants while consumers tend to claim that a lack of knowledge is a problem.

Furthermore, when asked what would make them act more sustainably several of the respondents claimed that they would like to have more explicit indications that they could understand on what impact each individual choice they make have. One respondent said that the fact that he knows that one alternative is more sustainable than another is not a very strong motivational factor if he does not know why:

> *"I read so many different things in the newspaper and all of a sudden something that you thought was good for the environment is super bad. Like buying locally produced stuff, I don´t know how much energy that requires and if that´s better just because people say that it is."*

5.6 Summary findings from focus groups and interviews

To summarize the results from the interviews and focus groups, many of the observations that have been made during the project in Hökarängen correspond well with the results obtained by us. First of all, most consumers seem to be rather uninterested in sustainability if it demands anything from them, do not have a clear picture of the concept, and are reluctant to make any real efforts to change their way of living. This is not to say that consumers do not care or find it unimportant, most respondents appeared to have a wish to contribute, but were reluctant to make sacrifices in terms of utilities. People are willing to contribute as long as they do not really have to do anything, but otherwise not. Convenience is an important determinant, consumers want to act in a sustainable manner since it moves them closer to their ideal-self, but the utilities added are typically not great enough to motivate a sustainable choice if it presents an inconvenience in the everyday life.

It appears especially difficult to motivate consumers in the energy effectiveness questions, since the impact is not clearly visible and appealing incentives are rare. One way of handling this issue, that appears to have been successful in Hökarängen, is to identify local interests and then design initiatives that speak to the interests of the consumers and, indirectly, educate them in the impact of their actions and how they can be sustainable doing something they enjoy. Moreover, consumers are unwilling to change their habits and the systems according to which they act, but when practices are established it becomes a part of the everyday life.

Finally, the situation in which the consumer finds him- or herself is of importance for the choices made. People do care about what others think and evaluate other people partly on how they act in terms of sustainability. Most consumers believe they have a responsibility to act in a sustainable manner and their own ideal-self is an aware citizen, which means that these goals can be externally activated through situational triggers.

6. Analysis

6.1 Sustainability, not attractive enough?

Our empirical results suggest that consumers often make active choices regarding sustainability, and evaluate alternatives that forces them to choose between options that differs in terms of sustainability partly according to the principles of utilitarianism (Sen, 1979). Such evaluations often appears to lead to sustainable options being neglected if they demand any significant effort from the individual that affect their everyday life (such as walking a little bit extra to sort waste or paying a little extra for sustainable products). This, together with our findings on how consumers perceive themselves as individuals and how this relates to sustainability, suggests that sustainability rarely is a high involvement goal that in a significant matter moves consumer closer to their ideal-self, but a sub-goal incorporated in their actual-self at best (Solomon et al., 2013).

Although sustainable behavior appears to be incorporated in the ideal-self among consumers and thus a part of who they would like to be, the desire to reach those goals is relatively weak compared to the importance of other individual attributes. This means that the sum of utilities from acting in a sustainable manner is too small compared to the utilities associated with acting in an unsustainable manner (Sen, 1979). Almost none of our respondents agreed with the statement that acting sustainably is an important part of who they are as individuals but all of them expressed a wish to act sustainably, which reflects the importance of the citizenship-role and gives support to the fact that individuals cannot be seen exclusively as consumers (Jeurissen, 2004; Berglund & Matti, 2006).

Goals vary among consumers and some people do act in a sustainable manner because the sum-ranking of utilities added from such a behavior supports this. However, our case study has shown that these consumers are simple to reach compared to the "average" consumer. Furthermore this category of people often do more than what is expected of them in terms of sustainability and should not be the main target of sustainability initiatives. As we argued initially, initiatives in a

city context with the primary goal of improving sustainability differs from other projects in that targeting certain consumers will not ensure success of the initiatives, since a broader adoption is needed in order for permanent changes in the sustainability of urban areas to take place. This justifies a main focus on the "average consumer" and consumer behavior in general.

6.2 Social identification and controlled incentives

As argued previously, we have found that decisions in terms of sustainability are made partly according to the principles of utilitarianism. However, we believe that trying to understand choices made by consumers in these types of situations through expected utility models (Tversky & Kahneman, 1986) may cause incorrect evaluations of consumer choices. Contradictory to the principles of utilitarianism, it appears as if consumers are inconsistent in their evaluations of alternatives relating to sustainability. Regardless of the sum of utilities, our research suggests that the non-utility information characterizing the situation the consumer finds him/herself in determines the choice made to a significant extent which questions the validity of the principles of sum-ranking and welfarism (Sen, 1979). Utilitarianism states that if you normally choose to recycle your cans over throwing them in the trash, this choice should be consistent over time and not depending on non-utility information, such as whether there are people watching or if there are other cans in the trash. This gives support to the observations by Tversky and Kahneman (1986), showing that the way different alternatives are presented affects the choice, and further raises questions regarding the validity of rational decision making theory and the concept of utilitarianism when making decisions regarding sustainability.

Our study suggest that social identification, situational factors and controlled incentives acts as the strongest motivations for consumers, and how visible their actions are appears crucial. Consumers do evaluate each other based on how they act in terms of sustainability and feel a responsibility to act in a sustainable way, which makes external, situational triggers powerful motivational tools (Solomon et al., 2013). Consumers can make other consumers act in different ways and cognitive beliefs regarding what is needed to identify with a particular social group may affect how people act in terms of sustainability to reach a state of cognitive consistency

(Gawronski & Strack, 2012). This is further supported by the findings in Hökarängen, where some of the respondents emphasized the importance of using "sustainability ambassadeurs" to reach other consumers. In this way, norms and cultures can be affected to increasing the importance of sustainable behavior for social identification (Solomon et al., 2013).

6.3 Actions and information, a cognitive dissonance

Many current sustainability initiatives appears to be following the premise that consumers are in need of information regarding their own habits and how they can become more sustainable, and that spreading such information should be a main objective. According to our findings, such an assumption appears to be at least partly incorrect.

Although consumers likely are unaware of the consequences of their actions in some circumstances (such as not knowing about how much electricity they consume) our findings suggest that consumers are aware of how they could become more sustainable, but simply choose not to act in such a way. They also seem to be aware of which of their habits are least sustainable and also know of alternatives to the current way of doing things. Our respondents mentioned things such as commuting by train or bus instead of driving, taking shorter showers, buying ecological products, sorting waste, reusing things, fixing clothes instead of buying new, turning of electrical appliances instead of putting them on standby etc.

When consumers are faced with such a decision it appears as if they find themselves in a state of cognitive dissonance (Higgings et al., 2012). They do believe sustainability is important, that they have some kind of responsibility as citizens to act sustainably and have an attitude suggesting that they should act in a sustainable manner, but their behavior is inconsistent with those beliefs and values. The consumers in our study instead tended to ask for more explicit information (i.e information that they could understand) about what consequences their actions have. They stated that it is demotivating to do something without knowing what difference it makes or claim that their actions are unimportant. However, the fact that they do know what the "right choice" is remains.

This can be seen as a way for the consumers to return to a state of consonance by changing their previous attitude or beliefs to better suit their actions (McLeod, 2008). The state of dissonance could also be resolved by changing the behavior, but this alternative only seems to be chosen when the desire to move closer towards the goal of sustainability as a part of the self-image is strong enough. This appears to be the case when controlled incentives are in play that are able to cause short-term behavioral changes (Deci et al., 2008). Examples of such incentives are monetary incentives or recent exposure to the damages that unsustainable behavior can cause (such as watching a documentary), which can be seen as a form of penalizing incentive. When these incentives are not in play, consumers instead turn to changing their attitudes, by diminishing the impact of their own behavior, or changing their beliefs, by making a conscious choice not to understand the information given. They can then argue that the information is not clear enough to justify a change in behavior or ask for more information.

These results suggests that perhaps the main target of sustainability initiatives should not be to spread information, although this remains important, but instead focus on making it easier for consumers to change their actions rather than change their values or attitudes. Another alternative is to make it more difficult for consumers to change their attitudes or values by providing more explicit information on their impact. Furthermore, our results also imply that information provided by a specific sustainability initiative may be seen as a controlled incentive, through which situational factors (information continuously provided from a specific project) may lead to short-term changes in consumer behavior changes that are likely to revert as the incentives disappear, which calls for an evaluation of consumer psychological needs rather than capabilities (Deci et al., 2008). We have also obtained results from our interviews suggesting that monetary incentives, in accordance with the findings made by Berglund and Matti (2006), may have a “crowding out” effect since several of our respondents stated that they would abandon some of the sustainable actions that they were currently undertaking if the incentives would disappear, and such incentives should hence be used with care.

6.4 Focusing on the fun, helping consumers solve the cognitive dissonance

An approach to changing consumer behavior that seems to have worked well in Hökarängen is to design initiatives that allow for consumers to contribute to sustainability in ways that suits and interests them. As stated in cognitive dissonance theory, consumers experience a feeling of discomfort when their cognitive representations are in imbalance with their actions, which leads to a will to restore the balance (Gawronski & Strack, 2012). The reason that changing one´s behavior appears to rarely be chosen by consumers is that it does not move them closer to their primary goals or contribute to their self-image to an extent that is significant enough to outweigh the utilities added by the unsustainable alternative. One approach to solving this issue is then to help consumers to return to a state of consonance by introducing ways that demand actions that are more appealing to the individual consumers (McLeod, 2008). In Hökarängen, this was done by focusing on the interest of the consumers themselves and allowing them to come up with ideas, which then helps them find new ways of solving the state of cognitive dissonance that they find more appealing. Such a strategy could likely be successful in other circumstances as well, by involving the consumer in the actual process of designing alternatives they can help themselves by solving their mental imbalance and simultaneously move closer to their ideal-selves.

6.5 When has consumer behavior changed?

Although our research so far has delivered several interesting results one particular, intuitively unsurprising, reality stands out: in order to for consumers to become more sustainable in their way of living they must change their behavior, which they appear to be rather reluctant to do. As Marks & Spencer CEO Marc Bolland put it: *"If we can´t get the consumers involved, we will always be behind the curve"* (Drummond, 2013). Furthermore, it seems common that consumer behavior changes are falsely confused with what information consumers have access to and what they know, and that their behavior will change in accordance with this. This, as have been showed in our study, is a somewhat naive view.

It may be convenient for companies and people that try to spur changes to believe that all they have to do is reach consumers with their information, present the alternatives in a way that speaks to the consumers and remind them of what they ought to be doing to be a good citizen of the world. Although such actions do have an impact, the project in Hökarängen reached some success in speaking to particular interests of consumers and providing them with information about what they can change in their everyday life to become more sustainable, it is not enough. People are not always rational, non-utility information affect their choices, and the way they express their preferences or what they believe they ought to be doing does not always reflect what they actually do. In order to change consumer behavior one must succeed in changing what consumers actually think, believe and feel - and in extension what they actually do. The success of such endeavors is not primarily depending on information, as one of the participants of our focus groups expressively put it:

> *"I don´t think more information would make me do things differently, I already know what is wrong and what is right. Sure, the information could be put in a less boring way that is easier to understand but I still doubt that it would make people do things differently in the long-term or suddenly think that they can change the world. We know all that, sometimes we don´t want to think about things we do wrong because it just makes you miserable so we just ignore it. At least I think that´s what I do".*

Changing behavior is not easy, and studying how companies and organizations go about attempting to change consumer behavior with the final goal of creating a more sustainable society can provide interesting results. However, another way is to study other situations where consumers have changed their behavior, and attempt to determine what caused this change. Studying another context where consumers have started acting in a way that is against what they have previously expressed a preference for can allow us to find out what has motivated this change. To isolate the factors that spur change it is important to find a case where none of the traditional incentives, such as economic incentives, have been motivating the consumers, since these incentives not only are none applicable for changing the world into a more sustainable place, but also because these do not truly change consumer behavior. As soon as these incentives

disappear, consumers will return to their old behavior since feelings, thoughts and beliefs have not been changed.

We have identified one such change as the boom in interest for healthy living, or the "wellness lifestyle", that continues to create increasingly profitable business opportunities (The Economist, 2007). In 2003, the healthy product market in the US generated sales of over $440 billion, which accounted for 4.2 percent of total GDP. The market has continued to show enormous potential and shows no signs of declining, and other markets such as the food industry and clothing industry have had to adapt to these changing consumer preferences. As usual, the increasing demand stems from consumers expressing a need for products of this kind. This is interesting for many reasons but one in particular, 30 years ago there was no such thing as a "healthy product market" worth mentioning (Divine & Lepisto, 2005). Although more information has been released regarding the benefits of a healthier lifestyle, it would be naive to attribute this permanent change in consumer behavior solely to more information. The benefits of an active lifestyle and healthy food were known 30 years ago as well. In Sweden, the same trends regarding the demand for healthy products can be observed. People have clear incentives to adopt a healthier lifestyle, just as they have clear incentives to adopt a more sustainable lifestyle, but what has caused the demands for healthy products to boom now? What were the triggering factors that produced this change in consumer behavior?

Applying self-determination theory (SDT) to the boom in demand for healthy products, the theory suggests that the reasons for the boom are that consumers have been affected by other consumers they trust or want to feel connected to, that they believe they can affect their own health and that this is important, and that they believe they have the competence to actually do something about it (Deci et al., 2008). The belief in their own competence can stem from input and feedback such as information regarding their own progress in terms of health.

The claims made by SDT correspond well with the motivational factors identified in our study. First of all, several respondents in our focus groups suggested that belonging to a social group is an important motivational factor for behavioral change. Secondly, a recurring notion was the wish to more clearly understand what particular impact certain actions had, which relates to the

sense of competence. The participants in our focus groups clearly expressed that they wanted to know that they really make a difference and how they make a difference. Thirdly, the respondents stated that they often change their behavior for shorter periods of time when faced with inconvenient truths such as nature documentaries or articles about how the world is being destroyed, but that they return to their old habits shortly afterwards. This proves that controlled motivation is unable to change behavior and then maintain the change, and stresses the need for autonomous motivation. Perhaps most importantly, SDT establishes that the most important factors for changing behavior permanently are psychological needs among the consumers rather than abilities to change (Deci et al., 2008).

This is very much in line with our findings, it is what consumers feel and think that matters, not what they know or ought to be doing from a rational standpoint. Most respondents said that they did want to be sustainable, that they had the opportunity to do so, that they were willing to put in some effort to change their ways, that they had a responsibility to do so, but most of them still stated that they did very little about it. The reasons for this, according to SDT and our findings, is that the psychological needs that consumers have for changing their behavior are not satisfied. They change their behavior if they feel social pressure to do so or if controlled motivation is in place but abandons the behavior when the rewards or punishments disappear. One of the respondents in our focus groups lived in Munich part of the year where sorting waste is statutorily and then she did it, but never in Sweden. The sustainable practices are yet to produce autonomous motivation among the consumers and they doubt their own competence to make a difference, which is where much attention for sustainability initiatives should be put.

7. Conclusions

A number of conclusions regarding consumer behavior and the adoption of sustainable practices can be drawn from our study. We will first present some conclusions of general character that points to the importance of understanding consumer behavior when designing sustainability initiatives and where we believe focus should be put in the future. After this we will present our revised theoretical framework which has been adjusted to account for the motivational factors we have found to be significant. We then continue by explaining how these conclusions can be of use to decision makers in practice before we move on to the theoretical contributions of this study and end with proposals for future research.

First of all, it appears as if many consumers do believe they have a responsibility as citizens to act in a sustainable manner and have a will to do so in order to move closer to their ideal-self, which means that there is potential for getting consumers actively involved in choosing sustainable practices. However, our results suggest that consumers often are rather reluctant to any changes that demand them to change anything in their lifestyle, which can be seen as evidence that sustainability is a question of satisfying psychological needs at an individual level rather than a lack of ability to change. This conclusion is further supported by the fact that consumers do not seem to think they lack information about what consequences their actions have or which alternatives are sustainable respectively unsustainable.

Moreover, it appears as if it is common for consumers to diminish their own impact on the world as a whole and question whether their own actions really matters. This can be seen as a psychological need that is not satisfied, which would suggest that the motivations for acting in a sustainable manner are not autonomous enough or that consumers lack a sense of competence. However, this can also be seen as a way to solve a state of cognitive dissonance by changing beliefs or attitudes relating to sustainability, implying that acting sustainably is not attractive enough. If this is the case, decision makers in sustainability initiatives should consider designing initiatives in a way that aims to make it easier for consumers to solve the state of dissonance by

changing their actions instead of beliefs or attitudes, which can be done by focusing on issues close to the individual that he or she expresses an interest in.

Regarding the view of the concept of sustainability among consumers, we found a traditional view of sustainability to be most appealing. The consumers appeared to see preserving natural resources and leaving the world as we found it as the primary goals for sustainability, while the freedom based view where future generations should be provided with capabilities equal to those of our generation received little support. They appear to focus almost exclusively on the environmental dimension of sustainability and their reasoning was very much in line with the original Brundtland Report.

A discrepancy between the trends among researchers and the consumers´ view can therefore be noted. Hence, in order for sustainability initiatives to be successful and receive sympathy the initiatives should emphasize the traditional, environmental dimensions of sustainability. At the same time, in order for the progress that has been made in the academic field to be translated into actual progress in real life, the concept might need to be discussed more in depth to open consumers´ eyes to different interpretations. Such dialogue will also serve as a discussion on what aspects of our world we find most important, and accurate prioritizations can be made.

7.1 Conceptual conclusions, revised theoretical framework

We have found situational factors, social identification and non-utility information to be motivational factors when sustainable alternatives are chosen. This suggest that theories on rational decision making and expected utility, based on the assumptions of utilitarianism, are unable to explain how choices are made by consumers, since the importance of non-utility information goes against the principles of sum-ranking of utilities and welfarism. However, the importance of perceived utilities among consumers cannot be ignored. We therefore suggest an approach based on satisfying psychological needs when designing sustainability. Below we present a revised theoretical framework to account for the findings made.

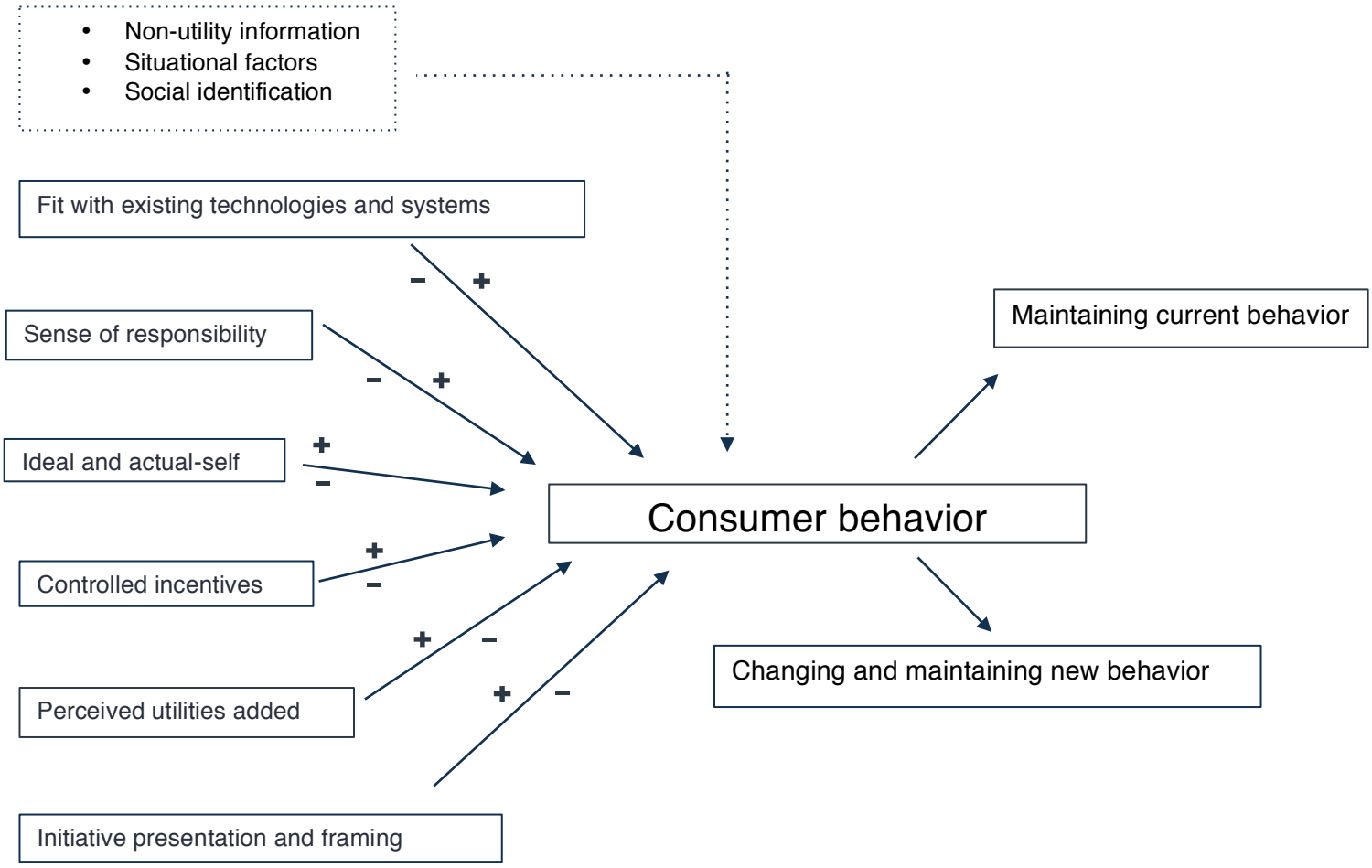


Figure 3. Revised theoretical framework

We have added non-utility information, situational factors and social identification as factors important for consumer behavior in terms of sustainability. We have also found partial evidence confirming the validity of the factors identified in the literature review. These factors and the ways in which decision makers should consider them is further discussed in the following section.

7.2 Practical contribution

Our hope is that the model for understanding which factors affect the adoption of sustainable practices presented in this study will be of help to practitioners in designing and presenting sustainability initiatives in a city context in the future. This study suggests that the most critical factors for success will be the extent to which non-utility information, situational factors, social identification and the efforts needed to contribute are considered. We have concluded that controlled incentives such as monetary rewards or punishment do have a positive impact on adoption. However, we have also received support for the idea that such incentives diminish consumers´ willingness to contribute in other areas or maintain their behavior if the controlled incentives disappear. We therefore recommend against the use of such incentives as the primary motivational tool and instead propose limiting the use to introducing new systems or technology. The perceived reluctance to change behavior regardless of the efforts needed suggests that the fit with existing technologies and systems is important when new alternatives to unsustainable practices are introduced. Our results indicates that if there are no clear benefits from changing behavior, consumers are unlikely to do it if it involves changing their habits. Controlled incentives can be useful in getting new practices in place, but the practices themselves must be preferred over the old system without the controlled incentives, or the changes will not be maintained over time.

Furthermore, we recommend against the use of conventional decision-making models for predicting consumer behavior since these theories are based on rationality and the principles of utilitarianism. We have found that sum-ranking of utilities added for the individual does not accurately predict consumer behavior in terms of sustainability since non-utility information most often play an important role in these decisions. Such non-utility information is the extent to which the behavior is visible to other individuals and the social context in which the decision is made. We therefore recommend carefully considering the situations in which a change in consumer behavior is attempted when designing sustainability initiatives and trying to identify individuals, as was done with the sustainability ambassadors in Hökarängen, who can influence other consumers as well as providing a social context for the change.

The presentation and framing of an initiative, in particular which information is given and how it is conveyed to the consumer, is also of importance. We have found that a lack of information is not as big of an obstacle to changing behavior in terms of sustainability as the way the information is presented. Our results suggests that consumers often do not lack information regarding which parts of their behavior they could change to become more sustainable or which alternatives are sustainable but find the information available uninspiring or difficult to interpret. We hence recommend a focus on providing as explicit information as possible that consumers can relate to and compare with other alternatives in everyday situations. We have also suggested that sustainability is rarely a high involvement goal for consumers in moving towards their ideal-self and that other conflicting goals are capable of causing a state of cognitive dissonance. To restore this balance consumers tend to change positive attitudes or beliefs in terms of sustainability to avoid having to change behavior which creates a need for explicit, clear information that consumers cannot question and also conveys a sense of competency.

Furthermore, the way sustainability is incorporated in the ideal and actual-self appears to be fundamental for understanding why certain choices are made. If we could only make one recommendation it would be that the importance of perceived added efforts brought by sustainable practices cannot be stressed enough. Our findings indicate that decisions made in terms of sustainability rarely is a high involvement decision among consumers and at best a reflection of a low prioritized part of the actual-self rather than an important goal in the strive towards the ideal-self. This means that how large the efforts are to act in a sustainable way is not as important as if any additional efforts are required at all. Once again the theories of rational decision-making are unable to accurately predict behavior since the utilities added from acting in a sustainable manner appears small and very difficult to measure which makes the slightest effort, such as taking a few minutes and walking a few meters extra to sort waste, off-putting to consumers. Furthermore, to the consumers who are willing to put in an extra effort the size of that efforts, as long as it is not unreasonable, appears fairly unimportant which further emphasizes the need to focus on the perceived extra efforts when designing sustainability initiatives.

7.3 Theoretical contribution

We believe this study offers a clear collocation of the various perspectives on the complex topic that is sustainability. We have initiated a discussion on the strengths and weaknesses of each perspective as well as their similarities and differences, after which we have contributed with our own take on the concept through a definition of a sustainability initiative. Furthermore, we have pointed to a noted discrepancy between the definitions and terms used in the academic world and the definitions adopted by consumers in the "real world" which is a problem that needs to be addressed in moving towards a sustainable society, since this will only be accomplished through effective action resulting from collaborative efforts.

Moreover, we have added to the criticism on rational decision-making theories and utilitarianism by questioning the ability to accurately predict consumer behavior in situations that are not characterized by economic importance or fierce competition. Our study suggests that non-utility information and other factors not considered in these theories do affect the decisions made to a significant extent.

Finally, by combining the fields of consumer behavior, decision-making theory and sustainability we hope that we have contributed to a deeper understanding regarding how consumers act when faced with options that differ in terms of sustainability and how such situations should be treated from a theoretical perspective.

7.4 Proposal for future research

As we have pointed out earlier in this study, the external conditions characterizing the region where a sustainability project is initiated likely affects the outcome of the project. Such conditions include the environmental conditions of the region, geographical and demographical characteristics, the urgency of change and human capital characteristics. This study has focused on consumer behavior and we encourage other researcher to further investigate the importance of external conditions.

Also, more empirical research is needed to confirm our results and provide room for further generalization in different settings and for different types of projects. We promote the use of our framework for such studies. We also encourage quantitative studies investigating the factors we have observed to ensure the validity and reliability of our findings.

Last but not least, sustainability is an inherently complex concept that needs to be further visualized. An opportunity for research that we believe would broaden the knowledge base is to map out and define the social dimension of the triple bottom line and come to a coherent understanding of how the three dimension relate to and affect each other.

8. References:

8.1 Printed sources

Agle, B., Mitchell, R. and Wood, D. 1997. Toward A Theory of Stakeholder Identification and Salience: Defining the Principle of What Really Counts. *The Academy of Management Review,* 22 (4): 853-886.

Alexandridis, K.T. 2006. Exploring Complex Dynamics in Multi Agent-Based Intelligent Systems. *Pro Quest.*

Amini, M. and Bienstock, C. 2014. Corporate sustainability: an integrative definition and framework to evaluate corporate practice and guide academic research. *Journal of Cleaner Production*, 76: 12-19.

Arora, P. 2013. Incorporate Corporate Social Responsibility Strategy into Business. *Standard International Journals*, 1 (2): 75-82.

Bagozzi, R. and Dholakia, U. 1999. Goal setting and Goal striving in consumer behavior. *Journal of Marketing*, 63: 19-32

Beiske, B. 2007. Research Methods: Uses and Limitations of questionnaires, interviews and case studies, *GRIN Verlag.*

Berglund, C. and Matti, S. 2006. Citizen and Consumer: The Dual Role of Individuals in Environmental Policy. *Sharp Research Programme, Working Paper 6.*

Bryman, A., Bell, E. 2011. Business Research Methods. (3rd ed.). *Oxford university press.*

Crane, A., Palazzo, G., Spence, L.J., and Matten, D. 2014. Contesting the value of ”Creating Shared Value”. *California Management Review*, 56, 2, 130-153.

Deci, E. Patrick, H. Ryan, R. and Williams, G. 2008. Facilitating health behaviour change and its maintenance: Interventions based on Self- Determination Theory. *The European Health Psychologist*, 10.

Denscombe, M. 2004. The Good Research Guide for small-scale social research, (2nd edition). *Open University Press.*

de Vaus, D. 2002. Surveys in Social Research. *Taylor and Francis.*

Demals, T. and Hyard, A. 2014. Is Amartya Sen´s sustainable freedom a broader vision of sustainability*? Ecological Economics,* 102: 33-38.

Denzin, N. K. 1970. The Research Act: the theoretical to sociological methods. *Chicago: Aldine.*

Diamantopoulos, A. Schlegelmilch, B. Sinkovics, R. and Bohlen, G. 2003. Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. *Journal of Business Research,* 56: 465-480

Divine, R. and Lepisto, L. (2005). Analysis of the healthy lifestyle consumer. *Journal of Consumer Marketing*, 22 (5): 275-283.

D´Souza, G. Cyphers, D. and Phipps, T. 1993. Factors Affecting the Adoption of Sustainable Agricultural Practices. *Agricultural and Resource Economics Review*, 159-165.

Eisman, G. and McDonald, T. 2011. Social Responsibility and Sustainability: Multidisciplinary Perspectives Through Service Learning (Service Learning for Civic Engagement Series). *Stylus Publishing.*

Elkington, J. 1998. Partnership from Cannibals with forks: The Triple Bottom Line of 21st-Century Business. *Environmental Quality Management.*

Friedman, M. 1970. The social responsibility of business is to increase its profits, *New York Times.*

Gawronski, B. and Strack, F. 2012. Cognitive Consistency, a fundamental principle in social cognition, *The Guilford Press.*

Gehrke, P. 2014. Ecological validity and the study of publics: the case for organic public engagements methods, *Public Understanding of Science*, 23 (1), 77-91.

Higgings, E. Kruglanski, A. and Van Lange, P. 2012. The Handbook of Theories of Social Psychology, *SAGE Publications ltd.*

Jeurissen, R. 2004. *Institutional Conditions of Corporate Citizenship*. *Journal of Business Ethics*, 53: 87-96.

Kuhlman, T. and Farrington, J. 2010. What is sustainability? *Open Access article.*

Lehtonen, M. 2004. The environmental–social interface of sustainable development: capabilities, social capital, institutions, *Ecological Economics*, 49, 199-214.

Marshall, M. 1996. Sampling for qualitative research*. Oxford University Press,* 13, 522-525.

Mcdonald, M. and Dunbar, I. 2012. Market Segmentation: How to do it and how to profit from it. 4th ed*. Wiley.*

Parris, T. and Kates, R. 2003. Characterizing a sustainability transition: Goals, targets, trends, and driving forces*. PNAS*, 100 (14), 8068-8073.

Pervin, L. 1989. Goal Concepts, Themes, Issues and Questions. *Goal Concepts in Personality and Social Psychology,* 473-479.

Porter, M.E. and Kramer, M. 2011. Creating shared value. *Harvard Business Review, January-February:* 62-77.

Porter, M. 2002. Strategy for Business. *SAGE publications ltd.*

Proctor, T. 2005. Essentials of Marketing Research. 4th ed. *Financial Times/Prentice Hall.*

Reiss, H. and Judd, M. 2014. Handbook of Research Methods in Social and Personality Psychology. 2nd ed. *Cambridge University Press.*

Sandhausen, R. 2000. Marketing. *Barron´s Educational Series.*

Saunders, M. Lewis, P. Thornhill, A. 2007. Research Methods for Business Students, 4th ed. *Prentice Hall.*

Schoemaker, P. 1982. The Expected Utility Model: Its Variants, Purposes, Evidence and Limitations. *Journal of Economic Literature*, 20: 529-563

Schudson, M. 2007. Citizens, Consumers, and the Good Society. *ANNALS, AAPSS*, 611.

Sen, A. 1979. Utilitarianism and Welfarism. *The Journal of Philosophy*, 76 (9): 463-489

Sen, A. 2013. The Ends and Means of Sustainability. *Journal of Human Development and Capabilities*, 14 (1): 6-20.

Stern, P. 2000. Towards a Coherent Theory of Environmentally Friendly Behavior. *Journal of Social Issues*, 56 (3): 407-424.

Sustainable Cities. 2012. Sustainable cities, Building cities for the future. *London: Buxton Press Limited.*

Solomon, M. White, K. and Dahl, D. 2013. Consumer Behaviour: Buying, Having and Being, Sixth Canadian Edition. 6th edition. *Pearson Education Canada.*

Solow, R. 1991. Sustainability: An Economist's Perspective. *Lecture to the Marine Policy Center, Woods Hole Oceanographic Institution, at Woods Hole, Massachusetts, June 14.*

Solow, R. 1992. An almost practical step toward sustainability. *Lecture on the occasion of the fortieth anniversary of Resources for the Future, 8 October.*

Spaargaren, G. and Oosterveer, P. 2010. Citizen-Consumers as agents of change in globalizing Modernity: The case of Sustainable Consumption. *Sustainability*, 2: 1887-1908.

Thorson, K. (2012). What Does It Mean to Be a Good Citizen? Citizenship Vocabularies as Resources for Action. *ANNALS, AAPSS,* 644.

Tricker, B. (2012). Corporate Governance. Principles. Policies, and Practices. 2nd ed. *Oxford University Press.*

Tversky, A. and Kahneman, D. 1986. Rational Choice and the Framing of Decisions. *Journal of Business*, 59 (4): 251-278.

Tversky, A. and Kahneman, D. 1992. Advances in Prospect Theory: Cumulative Representations of Uncertainty. *Journal of Risk and Uncertainty*, 5: 297-323.

WCED. 1987. Our Common Future (Brundtland Report). *United Nations World Commission on Environment and Development, Oxford University Press, Oxford.*

Van Eerde, W. and Thierry, H. 1996. Vroom´s Expectancy Models and Work-Related Criteria, A Meta-Analysis. *Journal of Applied Psychology*, 81 (5): 575-586.

Wilson, M. 2003. Corporate sustainability: What is it and where does it come from?. *Ivey Business Journal.*

Yin, R. (2009). Case Study Research: Design and Methods *(4th ed)*. *SAGE Publications.*

8.2 Electronic sources:

AF Bostäder (2015). Bokompakt. https://www.afbostader.se/lediga-bostader/bostadsomraden/bokompakt/. Retrieved the 1st of May 2015.

Bevan, R. (2014). What makes a city a city - and does it really matter anyway? The Guardian. http://www.theguardian.com/cities/2014/may/08/what-makes-city-tech-garden-smart-redefine, Retrieved the 26th of January 2015.

Boston College (2014). What is Sustainability? http://www.bc.edu/offices/sustainability/what-is.html, Retrieved the 22nd of March 2015.

Boyd, C. (2001). Sustainability is good business. OECD http://www.oecdobserver.org/news/archivestory.php/aid/546/Sustainability_is_good_business.html, Retrieved the 9th of February 2015.

City of Sydney. (2013). Decentralized Energy Master plan, Renewable Energy 2012-2030. http://www.cityofsydney.nsw.gov.au/__data/assets/pdf_file/0003/153282/Renewable-Energy-Master-Plan.pdf, Retreived the 26th of January 2015.

Drummond, J. (2013). Consumer Behavior Change: The Holy Grail of Conscious Brands. Behavior Change, Sustainable Brands Issue in Focus.

http://www.sustainablebrands.com/news_and_views/behavior_change/customer-behaviour-change-holy-grail-conscious-brands. Retrieved the 5th of March 2015.

Energimyndigheten. (2015). Projektinformation. http://www.energimyndigheten.se/Forskning/Projektdatabas/. Retrieved the 26th of February 2015.

Keeble, J. (2013). Young consumers hold the key to sustainable brands. The Guardian. http://www.theguardian.com/sustainable-business/young-consumers-key-sustainable-brands, Retrieved the 16th of April 2015.

Runde, D. (2015). Urbanization Will Change The (Developing) World. Forbes. http://www.forbes.com/sites/danielrunde/2015/02/24/urbanization-development-opportunity/, Retrieved the 8th of April 2015.

Global Footprint Network. (2014). Footprint Basics – Overview. http://www.footprintnetwork.org/en/index.php/GFN/page/footprint_basics_overview/, Retrieved the 22nd of March 2015.

Hållbar stad. (2011). Nytt miljö- och beteendeprojekt i Hökarängen. http://www.hallbarstad.se/projects/58-nytt-miljo-och-beteendeprojekt-i-hokarangen. Retrieved the 26th of February 2015.

Hållbara Hökarängen. (2012). Om Hållbara Hökarängen. Stockholms Hem. http://hallbarahokarangen.com/about/. Retrieved the 26th of February 2015.

NASA. (2015). Consensus: 97% of climate scientists agree. http://climate.nasa.gov/scientific-consensus/, Retrieved the 26th of March 2015.

National Oceanic and Atmospheric Administration (2008). A brief history of Pollution

http://oceanservice.noaa.gov/education/kits/pollution/02history.html, Retrieved the 3rd of February 2015.

McLeod, S. A. (2008). Cognitive Dissonance. http://www.simplypsychology.org/cognitive-dissonance.html. Retrieved the 25th of March 2015.

Skånskan (2012). Studenter får tävla om minsta bostaden. http://www.skanskan.se/article/20120123/LUND/701239897/-/studenter-far-tavla-om-minsta-bostaden. Retrieved the 1st of May 2015.

Skånskan (2014). Tio kvadrat utnyttjas till max. http://www.skanskan.se/article/20140321/LUND/140329871. Retrieved the 1st of May 2015.

State of Green (2014). City of Copenhagen. https://stateofgreen.com/en/profiles/city-of-copenhagen, Retrieved the 22nd of March 2015.

Sustainable Innovation (2013). Ett resurseffektivt Hökarängen. http://www.sust.se/projekt/hokarangen/. Retrieved the 26th of February 2015.

Swedish National Encyclopedia (2014). Stad. http://www.ne.se/uppslagsverk/encyklopedi/lång/stad, Retrieved the 26th of January 2015.

The Economist (2007). Health Consumerism, the wellness boom. http://www.economist.com/node/8492618. Retrieved the 5th of March 2015.

Trochim (2006a). Qualitative Approaches. Research Methods Knowledge Base. http://www.socialresearchmethods.net/kb/qualapp.php. Retrieved the 13th of March 2015.

Trochim (2006b). Types of Reliability. Research Methods Knowledge Base. http://www.socialresearchmethods.net/kb/reltypes.php, Retrieved the 17th of February 2015.

United Nations Population Division (2014a). World Urbanization Prospects, the 2014 revision, Country profiles.
http://esa.un.org/unpd/wup/Country-Profiles/Default.aspx, Retrieved the 26th of January 2015.

United Nations Population Fund (2014b). Urbanization Overview.
http://www.unfpa.org/urbanization, Retrieved the 26th of January 2015.

WWF (2015). The Prognosis.
http://wwf.panda.org/about_our_earth/aboutcc/how_cc_works/prognosis/, Retrieved the 22nd of March 2015.

8.3 Interviews and Focus Groups

Pilot interview with Sustainable Innovation Center, 2015-02-15

Interview with Åsa Stenmark, 2015-03-02

Interview with Thomas Sundén, 2015-03-04

Interview with Katarina Axelsson, 2015-03-25

Focus group held at Lund University, 2015-02-24

Focus group held at Lund University, 2015-02-26

Focus group held at Lund University, 2015-03-02

Consumer in-depth interview, Bokompakt, 2015-04-28

Consumer in-depth interview, Bokompakt, 2015-04-28

Consumer in-depth interview, Bokompakt, 2015-04-28

Consumer in-depth interview, Bokompakt, 2015-04-28

Consumer in-depth interview, Bokompakt, 2015-05-02

Consumer in-depth interview, Bokompakt, 2015-05-02

9. Appendices

9.1 Appendix 1, Stimulus material for focus groups

Quotes written on envelopes

1. "Sustainability is about replacing natural resources as a source of energy"

2. "Sustainability is about new technology and development"

3. "Sustainability is about leaving the world as we found it"

4. "Sustainability is about making sacrifices"

5. "Sustainability is about preserving the natural resources of the world"

6. "Sustainability is about freedom to live in a satisfying way"

7. "Sustainability is about making sure that our children have the same opportunities that we had"

8. "Sustainability is about taking responsibility"

9. "Sustainability is about caring for the environment"

9.2 Appendix 2, Interview-guide for focus groups

1. *What do you think of when you hear the word sustainability? Is it about the environment and natural resources or something else?*
2. *Do you normally think about sustainability in everyday situations?*
3. *When was the last time that you thought of sustainability and in what situation was that?*
4. *How often do you have to choose between practices that you perceive as sustainable and practices that you perceive as unsustainable?*
5. *What motivates your choices in these kind of situations?*
6. *Do you believe that you have a responsibility to think about sustainability in your everyday life? If yes, what are those?*
7. *Do you consider your behavior in terms of sustainability to be an important part of who you are or who you want to be?*
8. *To what extent are you willing to make sacrifices in order to contribute to a more sustainable society? Are there some sacrifices that you are not willing to make?*
9. *Do you ever evaluate other people based on how they act in terms of sustainability?*

10. *Do you believe that the society you are a part of provide you with the option to live in a sustainable way?*
11. *Do you think the way different alternatives are presented affect the way you make decisions in situations where you have to choose between two alternatives that differ in terms of sustainability?*
12. *How important is the accessibility of sustainable practices for you? Are you willing to search for them yourself?*

9.3 Appendix 3, Interview-guide for interviews with corporate representatives

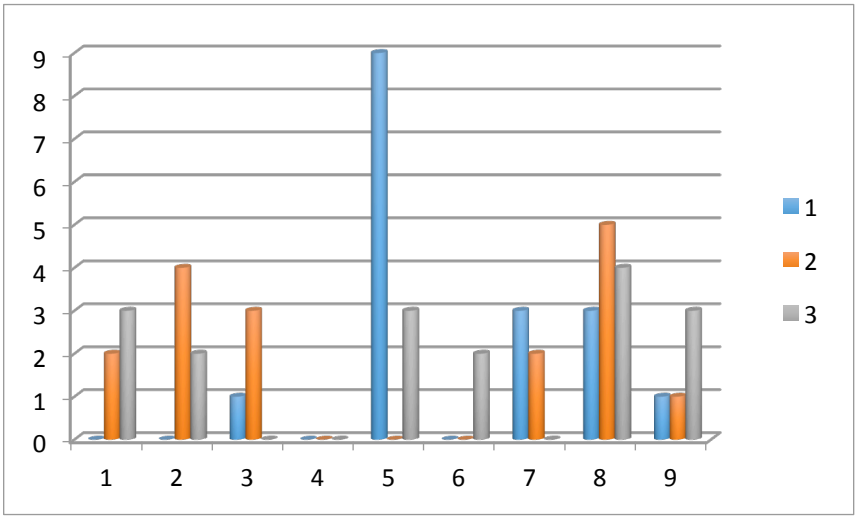
1. *Tell me a little bit about the project, what were the reasons behind the initiative and what have been your role?*
2. *Would you consider the project a success so far? Have you reached the project goals?*
3. *Would you say that the urban district has become more sustainable?*
4. *What has been the biggest challenges during the course of the project?*
5. *How has the initiative been received among consumers?*
6. *In your experience, what has been the primary motivational factor for consumers to adopt sustainable practices?*
7. *What has been the biggest obstacles when trying to get consumers to adopt sustainable practices?*
8. *What incentives to adopt sustainable practices do you believe that the project offered to the consumers?*
9. *What has the role of technology been in the project?*
10. *Has consumers affected each other?*
11. *What surprised you the most during the project?*
12. *How do you believe consumers in general feel about sustainability projects and sustainable practices?*
13. *What do you believe that the main findings of the project have been?*
14. *What are your plans for the future? How do you plan to keep motivating consumers to live in a sustainable manner? What is your dream scenario?*
15. *What is sustainability for you?*

9.4 Appendix 4, Interview-guide for interviews with consumers

1. *Can you tell me a little bit about yourself?*
2. *What do you think of when I say sustainability?*
3. *Did you consider the environmental aspects important when finding a place to live? Which aspects?*
4. *Would you say that you are a sustainable person? Why?*
5. *If not, what do you think that you could do differently?*
6. *Do you believe that you often make decisions where the alternatives differ in terms of sustainability?*
7. *What factors motivates your choices when faced with these decisions? What makes you act sustainably?*
8. *Do you think that you make an impact on the world by your choices?*
9. *Do you believe that you have a responsibility to act sustainably?*
10. *Do you believe that you lack opportunities to act in a sustainable manner?*
11. *Do you believe that you lack information to make informed, active choices in terms of sustainability?*
12. *Is acting in a sustainable manner a part of who you consider yourself to be, both as a consumer and an individual?*
13. *Do you ever think about how other people close to you act in terms of sustainability?*
14. *Are you willing to make sacrifices in your daily life in order to live in a more sustainable manner?*

9.5 Appendix 5, Illustration of results from envelope experiment

See appendix 1 for numbering of quotes.



9.6 Appendix 6, Interviews and focus groups

Type	Title/number of participants	Organization	Date
Interview	6 individual in-depth interviews	Residents, Bokompakt	2015-04-28, 2015-05-02
Interview	Katarina Axelsson, project leader Sustainable Hökarängen	Stockholm Environment Institute	2015-03-25
Interview	Thomas Sundén, project leader Sustainable Hökarängen	Sustainable Innovation Center	4/3-2015
Interview	Åsa Stenmark, project leader Sustainable Hökarängen	Stockholms Hem	2/3-2015
Pilot-interview	Thomas Sundén, Responsible settlement and innovation cluster	Sustainable Innovation Center	12/2-2015
Focus Group	8	-	24/2-2015
Focus Group	5	-	26/2-2015
Focus Group	4	-	2/3-2015

NewYorkTimes

Sustainable Sustainability, how is it done?

By Jonathan Jansson and Niklas Dahblerg, May 18th, 2015

Lund, Sweden. Sustainability is receiving massive attention worldwide, and much is directed towards global companies and organizations. Although companies embracing sustainable practices certainly is a fundamental part in creating a more sustainable society, a recent study from Lund University suggests that the battle for sustainability will stand in the cities, and getting individual citizens to embrace their opportunities as well as their responsibility to become more sustainable will be the key to a sustainable society.

There is widespread agreement among scientists all over the world that mankind is currently using resources at a much higher pace then the World can regenerate them, and sustainability has become one of the most important questions for ensuring the future survival of humanity. Another apparent trend is the rapid urbanization worldwide and by 2030, 75 percent of the Earth´s population is forecasted to live in cities. This turns the attention of sustainability towards the practices of consumers living in cities and how they can be affected through non-profit initiatives with sustainability as the primary goal.

Sustainability in the Cities

Sustainability initiatives in a city context differs from other corporate initiatives in that they have to speak to people of different backgrounds and with different experiences in order to truly have a sustainable impact on an urban district. Attracting certain consumers that fits the profile will not be enough to create the sustainable cities that will be imperative for the future of humanity.

In order for projects that demand something from citizens to be successful, consumer behavior, the origin of goals, actions and the incentives behind them must be understood. Traditionally, theories on rational decision making and expected utilities have been used to predict consumer behavior. These theories are built on the principles of utilitarianism, such as sum-ranking of alternatives and welfarism, meaning that non-utility information and inequalities of utilities can have no roles of their own in the evaluation of alternatives and the decision making process.

The study conducted by two master's students in business strategy at Lund University shows that such an approach is unlikely to yield a correct evaluation of consumer behavior when they face alternatives that differ in terms of sustainability.

"Perhaps the most significant finding that we have made is that people are not always rational, especially when something is asked of them. How much effort they have to put in is not as important as the fact that they have to put in any effort at all, and understanding the true incentives that may facilitate adoption of sustainable practices is likely where the focus of sustainability initiatives should be put to be successful", says one of the co-authors Niklas Dahlberg.

The study has investigated consumer behavior through a case study made on the project "Sustainable Hökarängen", which aims to make the Stockholm suburb Hökarängen a role model for sustainable urban districts all over the world, combined with focus groups and in-depth interviews with consumers living in climate-smart apartments outside of Lund. Perhaps unsurprisingly, one of the conclusions drawn is that sustainability rarely is a high involvement goal among consumers when moving towards their ideal-selves, and asking something of them without offering clear incentives is unlikely to be successful. The most apparent solution to this problem is controlled incentives, such as rewards or punishment, but a restricted use of such is proposed in the study due to the crowding out effects and the unsustainable character of such incentives.

The Motivational Tools

Instead, non-utility information, situational factors and social identification are presented as motivational factors on which decision makers should focus to understand how initiatives should be presented and designed to trigger sustainable behavior. It is suggested that the visibility of the individual actions, the social context in which the consumer finds him- or herself, the norms and values in the particular social group and the way in which the alternatives are presented has a significant impact on the choices made.

Especially, the nature of the information presented to consumers is highlighted as an area requiring focus from decision makers. By seeing the situations in which a choice regarding sustainability has to be made as a conflict between the fundamental values and beliefs of the consumer regarding sustainability on the one hand and high-involvement goals on the other, the decision process can be seen as an action aimed at solving a state of cognitive dissonance. This creates a need for explicit information that consumers cannot ignore, which prevents the consumer from abandoning beliefs and attitudes regarding sustainability and instead forces them to adjust their actions in terms of sustainability to return to a state of consonance.

According to the findings made, a lack of information is not the main issue when consumers choose to act in an unsustainable manner. Actually, it appears as if most people know how to live a more sustainable life and which choices are the "right" choices, but still do not do this. The authors therefore points to the importance of considering psychological needs at an individual level, since a lack of ability to change is not the primary problem for consumers.

Another interesting contribution of the study is that it provides a collocation of the many, adverse definitions of the inherent complex concept that is sustainability. By reviewing the major trends in the field since it was first presented in the Brundtland Report in 1987, the authors provide a clear picture of the topic and even attempt to present their own definition. By pointing to an observed discrepancy between the academic trends and the perceived definitions adopted by consumers outside of the universities, the authors also shine light on relevant problems for the future and propose a longed-for to-do-list for future researchers.

A Complex Issue

As is noted in the concluding remarks of the study, sustainability is a complex issue and much work remains to be done, especially to concretize the social dimension of the triple bottom line concept and how the dimensions relate to each other. However, this study will likely be of use when new sustainability initiatives are considered, and decision makers would be wise to let the framework presented serve as a guideline for putting them in the shoes of the consumers to understand the motivational tools available to them. Generalizing results from studies of this kind remains difficult, but regardless of the extent to which the conclusions may be valid in other contexts, the authors have put the spotlight on an important issue, which needs to be considered for sustainable cities to be a feasible phenomenon.