Nudge Marketing

How to influence decisions by changing the choice architecture

Johan Elmqvist, Johan Thorell

Dissertation in Marketing

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Preface

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The following bachelor thesis in marketing was written in the spring semester of 2015 at Halmstad University. We have during this process developed further ability in planning and prioritizing time between the internships and this thesis that both took place during the same time. Our knowledge of Nudge, both as marketing and a psychological term, has increased and we definitely feel its importance and possible impact in everyday life. Our interest of this phenomenon has been at the same level during the whole process and we really feel that we could not have picked a more interesting area within our education to examine.

We would like to take this opportunity to express our utter most gratitude to all the help and guidance that we have received during this process. We would very much like to thank all the participants of the survey and all our co-workers and acquaintances that took part in the two observations. Without them, this thesis would not have been the same. We would also give a little extra credit to namely our co-workers who have been very supportive and helped out with input during office hours, where we mainly would not have time or space to write our thesis.

Of course, we would also like to thank our supervisor Ulf Aagerup, who has been a valuable asset with legitimate thoughts and ideas about the process and how to further develop the content of this thesis. He has done this with great productivity and constructive criticism that has helped us during the whole process.

We would also like to give a special thank you to Lars Andersson, whose knowledge in statistics helped us when we were stuck at a vital point of this essay. Without him, a statistical acknowledgement of our result would not have been possible.

To whom this thesis may concern, we hope that it will interest you, give you pleasure, knowledge and help with the understanding of how the term Nudge can be used in marketing.

Sincerely,

Johan Elmqvist

Johan Thorell
Abstract

Title: Nudge Marketing - how we can make people make healthier food choices in their everyday life.

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Level: Bachelor Thesis in Marketing.

Authors: Johan Elmqvist and Johan Thorell.

Supervisor: Ulf Aagerup.

Purpose: The purpose of this thesis was to outline if it is possible to change consumer behaviour in order for the consumers’ to make healthier choices by using the nudge theory. The theory has previously been tested on a Government to Consumer basis and the objective has therefore been to apply the theory on a Business to Consumer basis to outline the possibilities of changes in consumer’s behaviour.

Theoretical framework: The theoretical framework starts with a review of the previous research within the field of The Nudge theory, it continues with important paired theories such as Libertarian paternalism, choice architecture and consumer behaviour.

Method: A method of triangulation have been used throughout this thesis since it brought a high degree of validity and reliability to the thesis. The methods have consisted of collecting primary and secondary data, conducting two various observation experiments as well as gathering information through a survey.

Empirical framework: The empirical studies consist of one survey and two observations. First, the survey is presented; where we wanted to get input of the theoretical situation that we later were to investigate in practice. This is followed by a presentation of the data from our observations where we tested the very same theoretical scenario from the survey in practice on two groups of people that were very much relatable to the people responding to the survey.

Conclusion: The conclusion of this thesis is that it is possible to change consumer behaviour by using Nudge theory and how it is possible for a society such as Sweden to make use of this tool to enhance life quality and prolong the life of its citizens.

Keywords: Nudge, Choice architecture, Libertarian paternalism and Consumer behaviour.
Table of Contents

1. Introduction ................................................................................................................... 5

   1.1 Background .................................................................................................................. 5

   1.2 Problem discussion ...................................................................................................... 6

   1.3 Research Question ...................................................................................................... 8

   1.4 Purpose ......................................................................................................................... 8

   1.5 Delimitations ................................................................................................................ 8

   1.6 Dispositions .................................................................................................................. 9

   1.7 Key Terms ..................................................................................................................... 10

2 - Frame of reference ........................................................................................................ 10

   2.1 - The Nudge Theory ..................................................................................................... 10

   2.2 Libertarian Paternalism ............................................................................................... 12

   2.3 Choice Architecture .................................................................................................... 13

   2.4 Consumer Behaviour .................................................................................................. 14

3 - Method ............................................................................................................................ 16

   3.1 Choice of method ......................................................................................................... 16

   3.2 The Quantitative Methodology ................................................................................... 18

   3.2.1 Designing the survey questionnaire ....................................................................... 19

   3.3 The Qualitative Methodology .................................................................................... 19

   3.4 Observation .................................................................................................................. 20

      3.4.1 Observation - A selection of situations ................................................................. 22

      3.4.2 Selection of place .................................................................................................. 22

      3.4.3 Selection of time .................................................................................................... 23

   3.5 Data collection ............................................................................................................. 23

      3.5.1 Primary and secondary data .................................................................................. 23

   3.6 Validity and Reliability ............................................................................................... 24

4 - Empirical Framework .................................................................................................... 25

   4.1 - Survey to outline consumers’ perceived behaviour - adding nudge ......................... 25

      4.1.1-Survey overview .................................................................................................... 25

      4.1.2 - Respondent overview ......................................................................................... 25

      4.1.3 - Respondent habits ............................................................................................ 26

      4.1.4 - Respondents behaviour ...................................................................................... 27

      4.1.4 - Spreading the Survey across channels ............................................................... 29

   4.2 - Observations ............................................................................................................. 29

      4.2.1 Observation overview ............................................................................................ 30

      4.2.2 - The choice between two goodies: Natural open selection .................................. 32

      4.2.3 - The choice between two goodies: Adding nudge ................................................ 34

5. Analysis ............................................................................................................................. 36
1. Introduction

*The chapter of introduction will describe why the specific area of research has been chosen, leading to the background of the problem. Further more the problem is discussed and will lead to the research question followed by its purpose, the delimitations, the dispositions and the key terms in this paper.*

Introduction

During the last decade, the fast food industry has grown every year with multinational companies increasing their revenue. This development makes it hard for companies that offer healthier alternatives to establish themselves. This thesis will outline the possibilities for health advocates to change customer’s behaviour, nudging them towards healthier choices that is better for them but also for the society in whole, by using one of the latest method in marketing, namely the Nudge theory. Recent reports and scientific research shows that the Swedish population has unhealthy habits when it comes to food. A rise in obesity together with a negative pattern concerning the consumption of fruit, vegetables and fish are increasing the risk of different types of illnesses which can lead to bad well being and, in the worst case, premature death. To increase fruit and vegetable consumption to the minimum-level a decrease of fatal heart diseases could be as much as 31%.

1.1 Background

It is no secret that managers during the last decades have spent a huge amount of time and money to come up with a strategy on how to position their products and services (Dobni, Dobni & Luffman, 2001) and when you considering the huge amount of effort and money that big companies spend on marketing and communication activities, every piece of knowledge that can contribute to the more effective use of resources should therefore be much welcomed and advertisers could benefit a lot from better knowledge about how consumers selectively direct their limited attention resources to avoid an even more cluttered advertising environment (Nordfält, 2005).

The insight that “everything matters” can be both paralyzing and empowering. Small and apparently insignificant details can have major impact on people’s behaviour. A good rule of thumb is to assume that “everything matters”. In many cases, power of these small details come from focusing the attention of users in a particular direction (Sunstein & Thaler, 2008) and according to Nordfält (2005) retailers and advertisers can adapt their marketing and
communication to the needs of the consumers by understanding the importance of learning more about how consumers perceive external information and retrieve memorized information.

Causer, L., Lock, K., McKee, M. & Pomerlau, J. (2004) writes in their report that the lack of dietary fruit and vegetables contributes an important share of the worldwide disease burden. Causer et al. (2004) estimates that increasing individual fruit and vegetable consumption up to the theoretical-minimum-risk distribution could reduce the worldwide burden of ischemic heart diseases by about 31% and ischemic stroke with 19% for example.

According to Livsmedelsverket (2015), obesity is increasing the risk of other diseases such as type 2 diabetes and both vascular and heart diseases. The mortality rate of vascular and heart diseases have actually decreased during the last decades but it is still the most superior reason for illness and disease in Sweden by far. In practice, for people to be healthier than they are today, they would need to double the amount of fruit and vegetables. Further, Livsmedelsverket (2015) states that people would also need to eat much more fish, consume half as much candy, soda, bakery and ice cream and also exercise in some form at least 30 minutes a day. Only two out of ten people are eating the recommended amount of 500 grams of fruit and vegetables a day and three out of ten are eating fish at least two days or more a week according to a vast report from Livsmedelsverket (2012). This is an alarming development, since a low intake of fruit and vegetables is a risk factor of ischemic heart disease, stroke and many types of cancer (Agardh, Allebeck & Moradi, 2011).

The amounts of people that are obese and overweight are increasing and the type of food, and volume of food intake are the foundation of this development. (Skov, Lourenco, Hansen, Mikkelsen & Schofield, 2012). According to Livsmedelsverket (2015), the most worrying development in Sweden is the increased obesity. Almost half of the adults and almost every fifth child in Sweden are fat or obese today. Public eating environments have therefore been identified as areas that are well suited for health promotion since there is an increase with the rate of people eating outside home. Previously approaches that focus on changing the health behaviour have earlier focused mainly on the influence of individual factors rather than environmental factors. This makes it interesting and thus necessary to study the effect of changes in food environments out of home (Skov, et al, 2012).

1.2 Problem discussion

While it is tempting to think that choices can be presented in a neutral way, the reality shows something else, namely that there are no neutral architecture and that every way the choices are presented, it will affect the decision-maker in his choice (Johnson, Shu, Dellaert, Fox, Goldstein, Haubl, Larrick, Payne, Peters, Schkade, Wansink & Weber, 2012). Retailers today are
challenged by the fact that consumers want more choices, such as more ethnic food products and a greater variety of flavours in products (Nordfält, 2005).

Studies show that the public doesn’t mind being marketed to, as long as the marketing strategies behind the message is respectful in the eyes of the public. This evolution has encouraged health advocacy groups who feel overrun by large food corporations that aggressively, and successfully, market junk food and sugary sweets to an already obese and unhealthy public (Thompson, JF. 2013). Consumers will also need marketing for information and to learn about product content and prices but maybe the most important, to be inspired, for example to try new dishes. Therefore it is suggested that consumers, retailers and manufacturers could benefit from increased knowledge about non-conscious influences on decision-making (Nordfält, 2005).

In a study done by the Swedish Public Health Agency, obesity increased from 11% to 14% between 2004 and 2013. An increase was also noticed in every investigated group, with men and women at age 45-64, having the highest increase. Further, the study shows that nearly 50% of the people in Sweden are obese, or overweight. (Folkhälsomyndigheten, 2014)

According to Sunstein & Thaler (2008), there is overwhelming evidence that obesity increase risk of heart disease and diabetes, which can lead to premature death. With this in mind, it is difficult to state that everyone is choosing the right diet and making decisions that is optimal for their health.

In 2008 the global fast food market grew by 6,6% and in 2013, the growth was forecast to increase by 29,3% since 2008, giving the corporations large resources to work with, and making it harder for health advocates to establish themselves (Ming, Tan Teck;Bin Ismail, Hishamuddin;Rasiah, Devinaga, 2010).

The addressed problem is that people sometimes make bad choices, and that they therefore should be helped to make better choices. Because people are unable to make the best choices for themselves, they should get help by so-called “Choice architects” who knows more about what will make people's lives better, easier and longer (Vallgårda, 2012).

Many of the policies and theories that have been tested previously is done on a governmental basis where governments use nudges to form people's behaviour. This can be done by introducing different regulations, laws and policies. There is a lack of previous studies that implement the nudge theory on private companies. Private companies will of course want to make money and have a great opportunity to capitalize from the use of nudge (Sunstein & Thaler, 2008). Though it should be considered that there is something unpleasant about the idea that organizations use no conscious cognitive influences on decision processes (Nordfält, 2005). And according to Solomon, M.R., Bamossy, G., Askegaard, S.,Hogg, M.K., (2010), one of the
most common criticisms of marketing is that the marketing techniques are responsible for convincing consumers that they “need” items that they don’t. In other words, this means that marketing creates artificial needs.

This thesis will try to outline the possibilities for the change in the choice architecture by applying the nudge theory in a way so that the consumers make healthier choices.

1.3 Research Question

*Is it possible to change consumer behaviour to healthier alternatives by using nudge theory?*

1.4 Purpose

The purpose of this thesis is to investigate and enlighten the subject of nudge and how it can and has been used in marketing purposes. It will treat psychological aspects, since its background is within psychology. Nudge has so far been used as a tool to make people pay taxes and fees to the government both in time and in some cases as early as possible. The bills to these costs often have a late expiration date, meaning that people tend to basically pay these fees during the last day. This is something that many governments want to change, and has therefore used Nudge.

What we want to investigate is if it is possible to change consumer patterns in order for consumers to make healthier choices, by using the nudge theory. This will be made by conducting an observation to see and connect the theory of how you can alter decisions in a specific direction, in this case a healthier one. We will also conduct a survey with a nudge to be able to prove further the effect that the theory in fact has both in real life situations and in hypothetical ones.

The purpose of this thesis it is to outline if it is possible to change consumer behaviour in order for them to make healthier choices, by using the nudge theory.

1.5 Delimitations

The thesis will investigate the market of food consumption. We will focus on the general diet of the Swedes and examine how to turn certain people's minds to instead pick a healthier alternative by slightly nudging them when conducting both the observation and the survey. Nudge is something that can be used effectively within many different areas of the society but the food industry is something that is a real debate in the current climate around the world. What kind of food a person is consuming, is it healthy or unhealthy, is people aware of the different risks of a
bad diet? Healthy, nutritious food combined with workout is a trend that currently is what one would call a hot topic today. That is why this thesis is limited to that industry and it will distance itself from other areas where Nudge is used, areas such as politics or the pharmaceutical market. The focus will be the Swedish market since this is where our studies of this field will take place. Terms, examples and theory from abroad is used frequently because most of the theories of Nudge is written by foreign authors abroad. We have applied these theories on the Swedish market throughout the empirical studies of this thesis.

1.6 Dispositions

1. Introduction
- Background
- Problem discussion
- Research question
- Purpose
- Delimitations
- Key terms

2. Frame of reference
Previous empirical and psychological studies on key terms and concepts that is referred to and also used through out this paper.

3. Methodology
Research approach, motivation for the research approach, selections and reliability and validity of the used measurements.

4. Empirical framework
Collected empirical data, both qualitative and quantitative, in form of interviews, survey questionnaire, observations and data mining.

5. Analysis
Analysis of the theory and the collected empirical to find connections and differences between the new data and the previous research.

6. Discussion and conclusion
Discussion and conclusion on whether and how it is possible to change consumer patterns with the nudge theory.
1.7 Key Terms

**Choice architect** - this is a person who is responsible for organizing the context in which people make decisions. Many individuals who are choice architects are unaware of being so. It is the art of indirectly influencing the decision-making. Can be a salesman, doctor or an HR representative for example.

**Libertarian paternalism** - a behavioural term that means influencing people to make decisions best suited for the individual. However, if they do not choose that option but instead chose what they want, which can be an unhealthier choice, libertarian paternalists will not force them or make it harder for them to make it.

**Nudge** - a nudge is how you, as a choice architect, in any way alter someone’s behaviour without ruling out any of the options at hand or by substantially change economic incentives. This is how we will refer to a nudge in this paper.

2 - Frame of reference

The chapter involves relevant theory, previous research and data collected to shed some light within the academically side of nudge and its theories. Firstly, the nudge theory itself is explained. This is followed by other acknowledged theories that are directly related and are needed to explain the bigger overall picture.

2.1 - The Nudge Theory

“Rare, difficult choices are good candidates for nudges” (Sunstein & Thaler, p.75, 2008).

When do we need a nudge? The short answer is to offer nudges that are most likely to help and least inflict harm. The slightly longer answer is that people will need nudges for decisions that are difficult and rare, for which they do not get prompt feedback, and when they have trouble translating aspects of the situation into terms that they can easily understand (Sunstein & Thaler, 2008).
Many of life’s choices are like practicing putting without being able to see where the balls end up, and for one simple reason: the situation is not structured to provide good feedback. For example, we usually get feedback only on the options we select, not the ones we reject. Unless people go out of their way to experiment, they may never learn about alternatives to the familiar ones. If you take the long route home every night, you may never learn there is a shorter one. Long-term processes rarely provide good feedback. Someone can eat a high-fat diet for years without having any warning signs until the heart attack. When feedback does not work, we may benefit from a nudge (Sunstein & Thaler, 2008).

The idea of Nudges is really about framing choices. People today are exposed with an enormous amount of signals about what is the best thing to do. We live in a complex world and since people only have a limited amount of time to process all the signals, they use social cues that will help them make better decisions (John, P., Smith, G., Stoker, G., 2009). Nudging may be through changing the decision structures that individuals face so that their individual or collective welfare will increase (Wells, 2010) and according to John, P. et al. (2009) individuals in the society today seek to economize on the use of information, whether it is about seeking to reflect on big issues or when deciding to carry about a routine civic action. The original definition of the term Nudge excludes the change in people’s behaviour by implementing legislation, regulation and intervention (Marteau, Ogilvie, Roland & Suhrcke, 2011).

The nudge theory offers a valuable framework for the choice architecture, and the change of it. It seeks to achieve alterations in the behaviour and attitudes, which would contribute with improvements, not only for the individual, but also for the society (John, P. et al., 2009). Aside from this, nudging can also include a wide range of approaches to alter social or physical environments to make certain behaviours more likely according to Marteau et al. (2011). Researchers that are using this approach argue that individuals can be offered a choice architecture that encourages, not only themselves but also the people around them in the society. To do so, information has to be provided and be structured or framed in a way that will affect the individual behaviour (John, P. et al., 2009).

Humans are goal directed, and they understand the world in a realistic way. They are used to adjust to the changes facing them. Although, they are not always successful doing so, which mostly depend on inner limitations (John, P et al. 2009). More broadly, humans are social animals who often look to the rules and underlying habits of how to act in different situations - in other words - how people behave in general. Individuals have a tendency to strive after the rules of appropriate behaviour rather than just to maximize their utility (March & Olsen, 1989). These cognitive limitations make a major impact on the individuals, since the decision-making is conditioned by the cognitive limitations. Individuals can reason, but when they are faced with a decision they do not think about every option and they do not always make a choice that are
optimal to their utility, as many economists assume. The cognitive limitations help them to focus on some things, which are based upon rules, habits and emotions, and ignore others (John, P. et al., 2009).

Furthermore, humans cognitive abilities are not infinite, thus they have limited computational skills and extensive flawed memories. To deal with these limited memories, humans make lists and use mental shortcuts and rule of thumb. This is not however, a guarantee for succeeding and even when humans use mental shortcuts, it can produce predictable mistakes (Jolls, C. Sunstein, C.R., Thaler, R., 1998).

There is a theory called psychological discounting which suggest that immediacy is a major factor when we respond to offers. The short-term effect of our decision is more important than the long-term. If a person is to receive something, he or she would rather have it now then later. Behavioural economists use this kind of theory to explain why people often make unclear and imperfect decisions (Frederick, Loewenstein & O’Donoghue 2002).

With this said, the Nudge theory will try to go with the grain of human behaviour and understand the shortcuts that people use to make decisions and then seek to bend or influence their environment (the choice architecture) in order to get a behaviour that is more beneficial for the society in whole, as well as for the individual. The nudge strategies are about creating the conditions to make better choices in the moment, and by nudging individuals in the right direction (John, P. et al. 2009). With this in mind, people overweight consume short-term and tend to forget and ignore the long-term gains. This enable outcomes that are weak and suboptimal for both the society and the individual. This will make people ignore the long-term effects of a poor diet and an inefficient lifestyle. (O’Donoghue & Rabin 1999.)

A nudge is basically any aspect of the choice architecture that will alter people's behaviour in a predictable way. It will not forbid any options for people or in significantly change their economic incentives. A nudge must, in order for it to be a nudge, be easy and cheap to avoid. Nudges are not mandates. A nudge can for example be to put fruit at eye level. To ban junk food and force people to eat healthy is not a nudge. (Sunstein & Thaler, 2008)

2.2 Libertarian Paternalism

Economists Richard H. Thaler and Cass R. Sunstein first introduced the term libertarian paternalism in an article in 2003. It suggest that people in some cases have a tendency to make inferior choices, which they would not have done if they had the complete information, unlimited cognitive abilities and no lack of willpower. Libertarian Paternalism is an approach that
encourages people to make free choices, but authorize both private and public organizations who will seek to steer people in directions that is good for them (Thaler & Sunstein, 2003). In their book “Nudge: Improving decisions about health, wealth and happiness”, Sunstein & Thaler (2008) explain the phenomenon further and admit that it is a concept that is difficult to interpret for unfamiliar people. Both words are weighed down by stereotypes from popular culture and politics that makes them unappealing, not to mention that they seem to be contradictory. But however, Sunstein & Thaler (2003) argue that the words are far more attractive together than separate, since they both reflect common sense if understood properly. The libertarian aspect mean that in general, people should be free to take whatever decision they want and libertarian paternalists will want to make it easy for people to make their own decision without jeopardizing the personal freedom. The paternalistic aspect means that it is legitimate for choice architects to try to influence people’s behaviour in order to make their lives longer, healthier and better (Sunstein & Thaler, 2008). Nudging is described as libertarian paternalism because although the choice architects or “nudgers” are trying to encourage different individuals to enact beneficial behaviours for themselves but also for the society in whole, with no compulsion involved (Bonell, McKee, Fletcher, Haines & Wilkinson, 2011).

Philosophers have approached the libertarian concept of free will. They argue that in order to claim that consumers are acting autonomously in response to ads, the capacity for free will and free action must be present. That is, the consumer must be capable of deciding independently what to do, and not be prevented from carrying out that decision (Solomon et al., 2010). Furthermore Sunstein & Thaler suggest that the term libertarian paternalism is a weak, soft type of paternalism because choices are not fenced off, burdened or blocked. They suggest only that choice architects are self-consciously attempting to move people in directions that will make their lives better, they Nudge (Sunstein & Thaler, 2008).

2.3 Choice Architecture

Different heuristics of consumer choice have been the object of a great deal of study which tend to have a narrow focus on the particular ways in which data is combined in comparing alternatives (Bettman & Zins, 1986). The term choice architecture is used to describe the different ways that choices can be presented for a customer and the impact it can have on consumer’s behaviour according to Sunstein & Thaler (2008). There are of course a lot of ways to present different choices for consumers or decision-makers and the choices are often dependant upon how they are presented (Johnson et al., 2012). Choice architecture can also make major improvements to the lives of others by designing user-friendly environments, a reason of major positive impact for some of the most successful companies on the marketplace. Sometimes it is highly visible, making it clear for consumers and employees, which makes them very pleased with it. The best example of this is probably the Ipod or Iphone that is not only easy to
manage for consumers, but it is also elegantly styled (Sunstein & Thaler, 2008). With this in mind, choice architects have significant, and in many cases, underappreciated influence. Choice architecture can influence choices in multiple ways: by varying the presentation order of different alternatives, the order attributes, ease of use or the selection of defaults (Johnson et al, 2012).

2.4 Consumer Behaviour

The theory of consumer behaviour covers a wide range: it is the study of the processes involved when groups or individuals select, use, dispose, and purchase products, ideas, services and experiences to satisfy their needs and desires. There is also a growing interest in the field of consumer behaviour not only from a marketing perspective but also from the social sciences in general. This is due to the growing interest and awareness of the increasing importance of consumption in our daily lives (Solomon et al., 2010). The field of consumer behaviour have been widely discussed during the past years and Bargh (2002) states that there has been an increasing attention to the possibility that there might be automatic or no conscious influences on choices and behaviour. The field still appears dominated by purely cognitive approaches, in which decisions and actions are made deliberately.

Solomon et al. (2010) writes that one of the main reasons that people study consumer behaviour is simply that the deeper knowledge and understanding you have of how consumers work, it is easier to make more money off them. This may sound harsh, but the reality is cruel. Of course it is much more to it. Furthermore the authors emphasise how vital it is for companies to understand its customers. You can then offer even better and more tailored service in combination of it being an important part of the marketing strategy and also give the company competitive edge.

Solomon et al. (2010) describes the self-image as the qualities that an individual possess and what the person thinks of these qualities. There are also two parameters of the self, the ideal self and the actual self. The actual self is a more realistic view on one’s possessed or missing qualities while the ideal self is one's idea of how it wants to be (Solomon et al., 2010). Purchasing and using products allow the consumers to define, maintain and further enhance their own self-concept (Hosany, S., & Martin, D., 2012).

Product consumption symbolizes personal attributes, motivations and social patterns. Symbolic consumption reflects the personality and lifestyle of consumers, expressing social distinctions (Sirgy, M.J., 1982). Consumption serves as a vehicle of self-expression (Aaker, D.A., 1996) and the consumers choose different products and brands perceptually consistent with their own self concept (Grubb, E.L. & Grathwohl, H.L., 1962 and Sirgy, 1982). This can also create a conflict.
for the individual. If the individual wants’ a product but wishes to avoid it at the same time, a state of Approach - Avoidance conflict occurs (Salomon et al., 2010).

Figure 1.2: The Approach - Avoidance conflict (Solomon et al., 2010)

According to Frederick et al. (2002), individuals have a tendency to make unclear and poor decisions. This can force a shift in the approach-avoidance conflict model to the left.

The self-image congruence is another factor that has a big impact on human lives. It is the concept of a choice where you decide to purchase and/or consume products that match attributes one is thought of inhabiting (Solomon et al., 2010). There are strong supporting evidence that self-image congruence explain and predict different aspects of consumer behaviour (He, H. & Mukherjee, A. 2007). Consumers’ buy products and brands they believe possess symbolic images similar and/or complementary to their self-image, that is, to achieve image congruence (Heath, A.P., & Scott, D. 1998).
3 - Method

This chapter will outline the scientific approach for collecting data and implementation of the study. It will also present a discussion about the choice of scientific approach where the relevance and reason behind the choices that has been made are presented. Finally, the validity and reliability of the sources are looked upon and criticised which concludes this chapter.

3.1 Choice of method

Triangulation has been used as a method throughout this thesis. A combination of observed experiments, a survey and previous research provide different types of answers as well as a wide range of results. These combined enable investigation both in depth and of broader perspective. According to Denscombe, M. (2009), the primary reason for combining different methods is to gain a broader opportunity to investigate a phenomenon. Since every different method contribute with its own angle of the research in question, method triangulation will increase the quality of the research. The method provides the opportunity to compare, question or verify the different types of results of data from each method. To have the option to see facts from different perspectives combined with the opportunity of possible confirmation will increase validity of the research and according to Todd (1979), triangulation can provide the researchers with several important opportunities and it allow the researchers to be more confident in their results and provide the them with various viewpoints.
Figure 1.3: Model of triangulation, a combination of methods.

The choice of method is based on the problem being investigated. What kind of method will provide the most helpful to enlighten the chosen problem? There are different circumstances that can exclude certain methods (Harboe, 2013). One of those circumstances is time, something that we would like to have had some more of, mainly to be able to conduct the qualitative interview that was planned initially, but could not be conducted. Another circumstance is resource, since a project takes a lot of time and can cost a lot of money - an element that is really crucial when deciding the extent of the research. This is mainly adapted to students who are to deliver a project at a certain date and very seldom have a large budget to the project in question (Harboe, 2013). Presented below is Harboes (2013) model of resource consumption of different methods.
3.2 The Quantitative Methodology

According to Jacobsen (2002), the quantitative methodology has its benefits since it provide standardized information which make it easy to work with, and enable the gathering of information from many respondents which have been essential for us throughout the thesis in order to outline customer’s perceived behaviour with the help of our survey. A quantitative methodology can be hypothesis testing, which is to formulate a reality-based statement and then empirically test if it is correct (Harboe, T. 2013). The strength of quantitative methodology is the generalizability and the testability. The testability is great since quantitative methodology is based on standardised measurements. In principle, others can use the very same questionnaire and get the same result. In the same way, the generalizability is great when quantitative research is built upon a representative selection of the population (Harboe, 2013). Further Jacobsen (2002), state that the quantitative methodology enable the investigator to get a clear view about variation and correlation between different conditions at the same time.

This thesis tries to outline the consumer patterns to see if it is possible to change it by applying the nudge theory. Therefore, a quantitative research had to be made to get a clear view about consumers perceived behaviour and preferences.
3.2.1 Designing the survey questionnaire

Since the purpose of this thesis was to outline if it is possible to change consumer’s behaviour to make healthier choices by using the nudge theory, we had to use a quantitative approach in the form of a survey - to outline consumer behaviour and perception. It is important to get information from many respondents of how they think they act and behave, which will enable a comparison on how they actually act and behave in real life situations later on.

Czinkota & Ronkainen (2006) write about different factors to consider when designing a survey questionnaire. These factors have been looked upon when designing our survey. One is question format, which has three sub-categories. The first is about design, where we chose a structured one. This means that only a limited choice of options is available to the respondent (Czinkota & Ronkainen, 2006). We also chose to have direct questions. Different societies have different levels of sensitivity towards direct or indirect questions (Czinkota & Ronkainen, 2006) and we consider Sweden as a society that does not have a problem with direct questions, and therefore we chose this option. Czinkota & Ronkainen (2006) also mention that answers may vary since the social desirability can have an impact to the respondents. The third sub-category within question format is data equivalence. This is mainly when designing a questionnaire for different countries where the standard is different and by that, one category of respondents in one country, will belong to a different category in another. For example, middle class respondents in the UAE would be considered upper class in Brazil (Czinkota & Ronkainen, 2006).

Another considered factor was question wording, which emphasise the importance of the language used in the survey. It states that language and culture is important to minimize the risk of misinterpretations and misunderstandings of written words and lastly, translate correctly when switching language since different words have different meaning across cultures (Czinkota & Ronkainen, 2006).

3.3 The Qualitative Methodology

The purpose of this thesis is to outline if it is possible to change the consumer behaviour in order for them to make healthier choices by using the nudge theory. In that perspective, a qualitative method was preferred in this research. Qualitative methods are best utilized when it comes to access context that demands understanding but this is something that becomes clear gradually (Eliasson, A., 2013). The purpose of the thesis demands an approach with openness, few limitations and a great emphasis on details and different shades amongst the investigated selection. Therefore it is essential to use a qualitative method, in this case an observation so that the consumers’ actual behaviour can be outlined and compared to their perceived behaviour. It is important to understand that it is the investigated situations and people that decide what kind of
information that will be collected (Jacobsen, 2002). Qualitative studies go in depth within a certain delimited empirical field and usually consist of fewer respondents. The main goal is not to collect results that are possible to generally adapt to the greater population. It is to collect close and nuanced information and interpret it to its relationship and context (Harboe, 2013).

Eliasson (2013) emphasise that a qualitative method work well when it is in combination with other forms of method. A qualitative approach is a good choice when investigating a phenomenon that the quantitative method is not sufficient enough to reach, or if it is difficult or even impossible to quantify. As mentioned earlier, we chose a triangulation of methods, since the purpose of the thesis was to outline if it is possible to change consumer’s behaviour to make healthier choices by using the nudge theory. The theory has its heritage from social behaviour theory and people might not always do what they think they do. Therefore we wanted to outline their perceived behaviour, what they think they do, and then compare what they actually do in real life situations, and if this behaviour is changed when they are exposed to a nudge.

We could not enforce different given questions and answers, since it is necessary to outline, “the real understanding” of how consumers act and behave, and not how they think they act themselves. With this in mind, the best choice to use is a qualitative methodology in our case, when it is necessary to bring clarity and a nuanced description to a specific subject (Jacobsen, 2002).

In this paper, two observations have been used to collect data. This is one of the two types that, according to Eliasson (2013), are the most common methods of collecting data when using a qualitative method. The other one is interview, but we could not find a preferable source for this method.

### 3.4 Observation

As previously mentioned, we wanted to investigate consumer behaviour which might not always match how consumers think they behave and therefore we first wanted to outline how people think they act - their perceived behaviour. After that we wanted to observe how people actually act and behave in a real life situation. However, since the purpose of this thesis is to outline if it is possible to change consumer behaviour so to make healthier choices by using the nudge theory, we had to expose consumers for a nudge and compare that behaviour with their behaviour when not being exposed to a nudge. Therefore we used two observations to take a look at how people behave in a situation where fruit and candy is presented in front of them and they are able to choose what they want. Since the resources of the observations are not so grand as we would like, a perfect situation at a perfect place at the perfect time is crucial to gain the maximum amount of data and useful information. Observation is considered a great tool to
register how people actually behave, and not how they say they behave, and also to register people's behaviour in a specific context according to Jacobsen (2002).

Even though the choice of observations may seem clear, it is important to understand that observations can take many different forms such as opened or closed, participant or non-participant observations, where, when and how long the observation is, will take place and who to observe (Jacobsen, 2002). Observations often give valuable and immediate information and can look very different when looking at the activity level of the observer in the observation. At passive observation, the observer tries to avoid any type of physical or psychological impact in the observed environment. This can be done by observing at a distance or keeping the project of the observation secret to the parties involved. At active observation, the observer tries to influence the environment in a certain direction to later analyze eventual effects (Harboe, T. 2013).

Active observation ← Passive observation

Figure 1.5: Activity level of the observer

In order to be able to answer our research question we had to create a three-part observation in which we first had to observe people's basic behaviour when they were faced with multiple choices. Second we added the nudge, a change in the choice architecture so that the choices were presented in a different way than before, and observed the behaviour after the change. Finally we compared the different behaviours and choices that the consumers had made, to outline the differences.

Since we wanted to provide a descriptive image as possible of the reality in consumer’s behaviour, the choice was to do a closed, non-participant observation. According to Jacobsen (2002) we could risk a change in people's behaviour if they are aware of the fact that they are being observed. Jacobsen (2002) also writes that a participant observation may affect the result in a preferable way to the investigator, which would not give a fair picture of the situation.

Taking the theory and the data we gathered so far in consideration, we created the following null hypothesis and an alternative one:

H0: \( \beta = 0 \) - there is no difference between the two groups.
H1: \( \beta \neq 0 \) - there is significant difference between the two groups.
3.4.1 Observation - A selection of situations

Before making an observation, different elements must be thought through. When normally thinking of selection in studies, you think of people, but when you think of selection in observation a different element becomes important, namely the context and situation in which people act and behave. Therefore it is crucial to be very critical when deciding on the situation and context. In order to perform an observation one must choose the place and time (Jacobsen, 2002).

When we decided that an observation was an approach we wanted to pursue, the discussion of situation emerged. As our objective in this thesis is to examine the possibility of influencing decisions (having only the resources and time to investigate on a small scale), the situation of an observed experiment is crucial. We needed it to be a situation of a social nature where there also was a need for some sort of nutrition for the people being observed. The situation also needed to be a relaxed one with people of similar type, taste and mutual interests to make the situation itself a comfort zone for everyone in that context. The more relaxed people are, the more likely we think it is for them to make a choice as honest as possible.

3.4.2 Selection of place

The purpose of the study is, as previously mentioned, to outline if it is possible to change consumer pattern and behaviour to healthier options by using the nudge theory. In order to examine this, the consumer has to be exposed to a wide range of options including both healthy, and unhealthy ones; otherwise the nudge will not have any effect. The most important thing according to Jacobsen (2002) is that the selection of place is closely connected to the problem being examined. Further according to Jacobsen (2002), the investigator can choose between examine one or more places randomly, one place he thinks will give maximal variation, one place he thinks will be representative for a large population or a place with a specific clientele or distribution. We believe, that in order to get a clear image of the reality, it’s not enough to examine just one place. We need to make several observations in several different places to get a clear view of consumer’s behaviour. The selection of place landed in two different common rooms of two offices, one in Gothenburg and one in Stockholm. The people that were observed in these two places had great similarities on personal level and all of them are working in businesses close related to one another. They are acquaintances from the workplace since everyone at the gathering work in the same office complex but in different companies.
3.4.3 Selection of time

It is just as important as the selection of place, to have the problem discussion in mind when deciding on the selection of time when doing an observation. Since this thesis will try to outline if it’s possible to change consumers behaviour to make healthier decisions by using the nudge theory, it must be considered if the observation should be done during a typical period when there is an average influx of customers, if it is a period when there is a special type of customers (Jacobsen, 2002). Since the area of research centres around consumption, it is of great importance to catch a time of hunger and/or low blood sugar of respondents in this observation. It is also important to have a span in which some participants are more and some are less hungry. Both because we want to see what is being chosen in different stages of hunger, and at the same time we must be able to offer anyone something that will satisfy their need. In that way, all the available options of fruit and candy of different sizes can then theoretically are consumed and not go to waste.

3.5 Data collection

When gathering information, researchers have two different sources of information to choose from, which is primary and secondary data. The most preferable way is to use both primary and secondary data since these can control each other. Different data can give support and thereby strengthen the results, but it can also be used in order to challenge different information against each other (Jacobsen, 2002). A good research is a change between empirical data and subjective interpretations in a nuanced and systematic way (Gustavsson, B. 1998).

3.5.1 Primary and secondary data

During the thesis process, primary data is gathered in form of an observation. By doing this, it is possible to gather tailored information from primary sources, for the specific research question (Jacobsen, 2002). The primary data are the observations and interviews that contribute with a rich and vivid purpose to the scientist. This is the material that is later coded and processed in the conceptualisation process (Gustavsson, B. 1998).

During the process, secondary data has also been collected. The data has not been collected for the purpose of answering our specific research question, but for another purpose that makes it very important to be more critical in the analysis of the sources (Jacobsen, 2002). Secondary data is coded and conceptualised in the study, but it is dependant on previous processed data that is out of one's control. Although, the gathered material is not vivid in the same way. In this stage,
one is processing already theoretical processed data that is something that one has to be aware of (Gustavsson, B. 1998).

Sources used in collecting the secondary data are different databases such as Summon, Google Scholar, DiVA-portal, Emerald and ProQuest. More rarely, but still nevertheless, used are databases of universities from many different western societies.

### 3.6 Validity and Reliability

According to Ejvegård, R. (2002) all measurements and techniques, including surveys, must be reliable and valid. The reliability shows the usefulness and how reliable a measurement is. It is of absolute necessity to have a certain standard and high requirements of the sources being used in the research. Examples of requirements that have been taken into account when conducting this thesis is that the sources ought to be relatively fresh and independent of one another (Ejvegård, 2002).

Denscombe, M. (2009) emphasise that the researcher has to consider the reliability of the written sources. Important topics to take into consideration are for example who the author of the literature is, when it was written and the level of knowledge possessed by the author or authors’.

According to Jacobsen (2002), triangulation gives a greater overall picture and increase validity. Taking the qualitative study and the quantitative study in consideration, the research gives different input on the very same subject. A deeper and more niche knowledge from the qualitative method, and then a broader from the quantitative method.

In order to increase validity and reliability we had to statistically measure the outcome of our observations. This was done by performing a Z-test, which would give us the answer if there are any significant differences in consumed fruit between the two observed groups.
4 - Empirical Framework

In this chapter we will present the collected empirical data. The data have been collected through two different observations and one survey. The data collected from the survey will be presented first, followed by the data from the observed experiments.

4.1 - Survey to outline consumers’ perceived behaviour - adding nudge

When presenting the data of the survey we have divided each section of data to make the experience of reviewing it a little easier. This data is also complemented with the graphic from the survey showing the exact percentage and outcome of each question.

4.1.1 - Survey overview

To add validity and theoretically test and compare the very same dilemma that the people in the observations were exposed to, we conducted a short survey. This was the first step to collect data that at a later point would be compared to the data from the observations that we were to conduct at a later stage. The survey contained questions about both the respondents perceived behaviour as well as their habits. The respondents of the survey were controlled so they and the participants of the both observations were as equal as possible. In this way, it is motivated to compare the respondents of the survey and the participants of the observations.

4.1.2 - Respondent overview

We were interested in knowing the gender of the respondents and their age to see if any patterns would occur or if the different choices depended on different generations for example. The respondents were mainly in the span 18-25 and 36-45, which also was the majority of age categories of the ones participating in the two groups of the observations. This was of utter importance because in this way, the relevance of the bigger picture of this thesis becomes higher, and in our analysis and conclusion it is easier to motivate how all these elements and data can be compared and be measurable to one another. There were a majority of men, 58% compared to 42% women responding to the survey.

Figure 2.1: Gender of respondents.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>96</td>
<td>58%</td>
</tr>
</tbody>
</table>
4.1.3 - Respondent habits

Next, we wanted to know if the respondents were consuming the type of sugar one find in candy, cookies or pastries more than once a week, and if the case was so, how often it occurs. This reason behind it was to establish if the respondents were major consumers of these type of sweets and if by that, they were more or less likely to pick candy over fruit both in theory (survey) and in real life (experiment). About 64% responded that they often, or, a lot consume these products more than once a week while 36% claimed that they did not. None claimed that they never eat sugar.

Figure 2.2: How often do you eat sugar more than once a week? (Added sackaros, in ex candy or cookies)

<table>
<thead>
<tr>
<th>Options</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very often</td>
<td>30</td>
<td>18%</td>
</tr>
<tr>
<td>Often</td>
<td>76</td>
<td>46%</td>
</tr>
<tr>
<td>Rarely</td>
<td>48</td>
<td>29%</td>
</tr>
<tr>
<td>Very Rarely</td>
<td>12</td>
<td>7%</td>
</tr>
<tr>
<td>I Never eat sugar</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

In order for us to get an understanding of people's view on various health risks, we asked them to rank five different risks, and which of them they thought was the most dangerous one. The study shows that smoking was the most dangerous one and as many as 45% of the respondents answered that followed by obesity, alcohol, work injuries and traffic noise. 22% of the respondents thought that obesity was a larger health risk than smoking.

Figure 2.3: Rank the following health risks. 1 = Most dangerous and 5 = Less Dangerous
4.1.4 - Respondents' behaviour

Furthermore, we asked people to rank five different health risks in the order in which each individual perceived it. It is interesting to see if people are aware of the five major health risks and which of them actually are the most threatening to the human life. This is interesting for us in general, but foremost to see if the respondents are aware and up-to-date with the flow of information that is available to enlighten and possibly work as an alarm clock to someone living an unhealthy life. The information is out there and easy to access, and we feel that it is pretty important for people to know what threatens their life in form of day-to-day activities and diet, that can make or break a foundation of a long and prosperous life. Especially, since a high majority of the respondents living in the (relatively wealthy) Swedish society with all the possibilities being available for everyone. It does not take a lot of time nor comes with a high economical cost. A vast majority, about 75%, claimed that they in that situation would choose fruit instead of candy. Only 25% answered that they would prefer a piece of candy when having low blood sugar.

Figure 2.4. Imagine that you are hungry and your blood sugar is low. In front of you, you have two bowls, one with candy and one with fruit and you have to make one choice. What do you choose?

<table>
<thead>
<tr>
<th>Options</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Candy</td>
<td>42</td>
<td>25%</td>
</tr>
<tr>
<td>Fruit</td>
<td>124</td>
<td>75%</td>
</tr>
<tr>
<td>Total:</td>
<td>166</td>
<td>100%</td>
</tr>
</tbody>
</table>

We have previously mentioned recommendations that the Swedish organisation Livsmedelsverket have for people's intake of fruit and vegetables. In order for us to outline consumer behaviour and compare it to Livsmedelsverkets recommendations we asked them how often they eat the enough amount of fruit and vegetables. Only 21 % said that they follow the
recommendations very often. Surprisingly, as much as 43% of the respondents said that it is rarely that they follow the recommendations.

Figure 2.5. How often do you eat at least 500 grams of fruit and vegetables?

<table>
<thead>
<tr>
<th>Options</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Often</td>
<td>35</td>
<td>21%</td>
</tr>
<tr>
<td>Often</td>
<td>52</td>
<td>31%</td>
</tr>
<tr>
<td>Rarely</td>
<td>71</td>
<td>43%</td>
</tr>
<tr>
<td>Very Rarely</td>
<td>8</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>166</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Further, we also asked the respondents if they follow Livsmedelsverkets recommendations regarding daily physical work out. Not very surprisingly, a small majority of 39% said that they follow the recommendations of a minimum 30 minutes workout per day. Only 3% said that it is very rarely that they perform a 30-minute workout per day.

Figure 2.6. How often do you workout at least 30 minutes per day?

<table>
<thead>
<tr>
<th>Options</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Often</td>
<td>65</td>
<td>39%</td>
</tr>
<tr>
<td>Often</td>
<td>52</td>
<td>31%</td>
</tr>
<tr>
<td>Rarely</td>
<td>44</td>
<td>27%</td>
</tr>
<tr>
<td>Very Rarely</td>
<td>5</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>166</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

As we mentioned earlier, previous studies show that people sometimes have a tendency to forget the long-term gain when they are facing a decision. It is more common that they make the choice that is more beneficial for them in the short-term. With this in mind, we wanted to see how common it is for people to plan their shopping of groceries. Also, if they plan when it comes to consuming items containing sugar. Our reason for this is that people might be more effectible and more likely to change their behaviour spontaneously when they are exposed to a nudge, if they do not plan their shopping. Of our respondents, 44% said that they often shop other groceries than the ones’ they have planned. Accordingly, 32% said that they rarely shop other groceries than the ones’ they have planned.
When asked how often the respondents plan when to eat items containing sugar, a majority of 47% said that they rarely do so and 38% actually claimed that they do.

4.1.4 - Spreading the Survey across channels

The survey was in the first stage shared through social media, in the form of Facebook. In the secondary stage, we sent it through a mailing list to all the members of the Marketing society in Gothenburg. This way we were able to collect data from a much bigger span of respondents of different ages. The survey was the first piece of data that was collected, since it was relevant and interesting to get a first result of how people were thinking and if the result would be as we predicted. Also, it was necessary to collect this data through a survey to compare a theoretical choice and a real one, which was observed in an experiment conducted later on. We used the numbers of the collected data as a foundation to divide the two elements fruit and candy in the first experiment accordingly. In total, 166 people responded to the survey.

4.2 - Observations

First of all, enabling the survey and the observed experiments to be as measurable as possible to each other was really crucial in this scenario. We really wanted all the elements chosen to be as
reliable and valid as possible. We had a specific group of people responding to our survey; similar age, men and women, level of education, currently working or studying, and also the respondents were from Sweden. Neither fitness extremes nor the opposite. When we crunched the data of the survey, we decided that the most optimized place where this very same group that responded to the survey would be represented was our two offices. We had basically the same demography overall (both in between us and the same as the respondents of the survey), and could create two environments during the same time and of similar nature - by our measurements and possibilities it was as ideal as it could. Enabling the survey and the two observed experiments to have the same type of participants in between them as well as the same as the respondents of the survey motivates the result to be analyzed more properly. When considering the behaviour of Swedish people in combination with the culture of doing what is considered politically correct in the current climate, we were very confident that people in the survey, and in the observation with the nudge, would do what is expected of them - choose the healthy option. But when actually being put to test, without a nudge and without any influence other than themselves (and in some form peer pressure) we expected them to do the exact the opposite.

Since the purpose of this thesis is to see if it is possible to change consumer’s behaviour in order for them to make healthier choices, by using the nudge theory, we first of all had to outline and identify consumers behaviour when they are facing two different options, fruit and candy. In order for us to do so we performed one observation with this particular scenario. At the same time, in order for us to see if it is possible to change consumer’s behaviour by using the nudge theory, we did a second observation with the same scenario, but we added a nudge that consisted of informative notes and leaflets that were put out on places where people would notice them. These notes, or the Nudge, were put in place four days before the actual observation took place. They were placed very strategically so that the people at the office at some or many points were to see them and consume this little piece of information that when the observation were to take place, they would have been affected by it and act on it. In the paragraphs presented below, we will present the two observations more in detail.

During the first observation, without the nudge, the group contained a total of 60 people, 42 of them were men and 18 of them were women. During the second observation, with the nudge, the group contained a total of 24 people, 9 of them were men, and 15 of them were women.

4.2.1 Observation overview

The two observation groups are considered as equal since there are no clear differences between the group variables except for the percentage of gender distribution, which are of no interest since the purpose of this thesis is to outline if it is possible to change consumers behaviour in order for them to make healthier choices by adding the nudge theory. It is not in our interest to
investigate through our observations why, or why it is not, possible. Below we present an overview of the two groups that participated in the two observations. The characteristics of the two groups are also presented to make a clear overview on the two groups and why they are compatible to being compared towards each other.

**Figure 2.9: Observation overview**

<table>
<thead>
<tr>
<th>Observation Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group 1</strong></td>
</tr>
<tr>
<td><strong>Size</strong></td>
</tr>
<tr>
<td><strong>Age</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Before the observations were performed, we conducted a null hypothesis, and an alternative one, which are presented below.

H0: $\beta = 0$ - there is no difference between the two groups.

H1: $\beta \neq 0$ - there is significant difference between the two groups.

Having previously conducted the survey, and analyzed the data, we had a clear image of how the majority of people would act in these actual scenarios, given that they actually answered truthfully. It does not necessarily have to come down to one being truthful or not; one consideration from our point of view is that people maybe do not know themselves and how they instinctively act. We specifically performed these experiments to observe if the results from our survey were true or false when being put to the very same scenario described in the survey. What made this really interesting was our knowledge of the gigantic impact the right kind of nudge
actually could have if being implemented properly. Beforehand, with the results of the survey at hand, we realised that we actually stood in front of a situation where we like puppet masters could design an environment in which people, unaware of it, made the choice we wanted them to. The power that comes with this, and the way two scenarios could get two completely different results by just giving small subconscious bread crumbs in one of these environments, was thrilling to the extent it almost became terrifying.

4.2.2 - The choice between two goodies: Natural open selection

The first out of two observations was made without any type of nudge or any other element were the people exposed to this observation could be influenced in any of the two direction of choices at hand. Although natural elements such as peer pressure was an existing factor in the observed situation and could not be controlled. The first observation was made in an office where a total of 60 people were exposed to the experiment together as a group. 42 of these were men and 18 were women in the ages of 25 - 55. These people were the type of mix you would expect at an office. Many of them are working out, some are not, and are eating relatively healthy, basically the same standard that can be applied to the current Swedish society as a whole. There is a climate that some people describe as a “health craze” in Sweden currently, and this group were not extreme in any of the two directions, just straight in between. This group was very much alike from the one responding to the survey, and the group of the other observation, which of course we felt were very important when analyzing all the data. Similar age, men and women, level of education, currently working or studying, and also the respondents were from Sweden. No fitness extremes or the opposite.

The 60 people were all being observed during this social gathering, which was not conducted by us, but were a separate gathering that was used by us to conduct the observation. This way, the people were not aware of it being an observation and by that we felt that we could get the most honest possible reaction from these people when being subjected to this choice. The place of the observed experiment was something that is a little bit of a Swedish tradition: a long coffee break that, at this office, takes place during the afternoon on Thursdays. These gatherings happens every week and gather people from the different companies of the whole office complex. People both talk business and social life for a couple of hours in a more relaxed and comfortable environment. Usually, all that is being offered on these Thursdays are complimentary coffee. However, this time the little change in this familiar environment was the two bowls where they were able to make a choice. The situation of choice that was made for them was to pick fruit or candy from two different bowls. Both bowls involved candies and fruits of different flavour and size. This way we also eliminated the dilemma if some of the individuals were more or less hungry and for example just want a little bite such as some grapes or just one candy, rather than being hungry enough to eat a whole apple or banana.

The two bowls contained:
With the help of the initial response from our survey, we bought and divided the weight between fruit and candy based on what our respondents claimed they would choose. It was not the same people participating in both observations, or the same people being observed twice, since this would most likely raise suspicion among them and maybe not show an honest result of how they would act if unaware of being observed. It would also require a different research approach to conduct with the same people - a focus group for example.

The survey showed that 75% would in their own truthful sense pick fruit and 25% would choose candy in the very same scenario we created in the two observed experiments. Everyone had a free choice. If hungry, there were enough options to eat and get your stomach full, or if you just wanted something small to still a small need for sugar, all the possibilities were available. Beforehand, there was a small risk of a problem that could occur in the experiment. We realized that it was a small possibility that someone could be too hungry at the observation and basically bury their hands in either the bowl of candy or fruit, and by that eat most of the content themselves. That would have made a very misleading result and it would have been difficult to use the observation and the outcome of it as a measurement for this thesis. Luckily, this was not the case.

After three hours of observation, the bowl of candy was completely empty, while about 75% of the fruit was left in its bowl. To be precise, 732 grams of fruit had been eaten which equals 24.2%. Thus, 75.8% of the fresh newly bought fruit was left untouched in its bowl. The first bowl was completely empty, though one small red piece of the chocolate confectionary “Smarties” lay there alone. The exact weight of this could not be measured, since the scale used for measuring this experiment could not weigh in such a small amount. Researching it, one “Smartie” weigh about 0.5 g, making the consumption of the candy bowl 99.9% or 999 grams. Nearly every one of the participants ate something, 55 of them to be precise, but obviously most of the 55 ate candy. Since this observation had a high total of participants, calculating an exact amount of candy and fruit consumed in this assembly is excessive in our opinion.

In summary the first observation showed that:
- 75% of the fruit was left in the bowl and only 25% of the fruit had been eaten.
- 0.01% of the candy was left in the bowl, and 99.9% of the candy had been eaten.
- 92% of the people being observed had been eating from the candy bowl.
4.2.3 - The choice between two goodies: Adding nudge

A second group of people were also observed, but this time they become exposed of a nudge before they had the opportunity to make the choice. The observation was made at an office where 24 people worked, 15 women and 9 men. We identified this group as very much alike the participants in the first observation and the respondents of the survey. Similar age, men and women, level of education, currently working, and also the respondents were from Sweden. Neither fitness extremes nor the opposite. All of the 24 were being observed, and offered the same choice, fruits or candy. In front of them, a basket with various fruits and a bowl of candy was presented.

The two bowls contained:
- Bowl 1, Candy, 2 kg: liquorice, sweets, and chocolate bars of different sizes, salt and sour.
- Bowl 2, Fruit, 2 kg: Bananas, Apples, grapes and Clementine’s.

The two bowls of fruit and candy were presented to the observed people at 15.00 pm, due to the probability that this is a time when peoples blood sugar are at a low level and they have an afternoon snack. This scenario should be considered as a common one, which most people have been exposed to, and therefore we chose this particular time to our observation.

4.2.3.1 Libertarian Paternalism

Before the observed people was given the opportunity to choose either fruit or candy they received no instructions whatsoever, and the reason for that was to embrace the libertarian paternalism, namely to give the consumers, or the people being observed, an idea that they had a free choice which they had. If they preferred to choose the fruit they could take the fruit and if they preferred to take the candy, they could have taken the candy.

Our added nudge in the second observation consisted of small notes with various messages about calories comparison, recommendations from Livsmedelsverket and basic information regarding diets and health diseases. The aim for the nudge was to steer people to make the healthier decision, without them knowing that this was our aim. We wanted the people being observed to think that they made a choice of free will. Our small survey that was done after the observation showed that 89% of the observed men stated that the notes did not affect them, and 53% of the women stated that the notes did not affect them. These numbers is considered as relatively high and proves that people thought that they made a choice of free will.
4.2.3.2 The nudge theory: Changing the choice architecture

In order to answer our research question and see if it is possible to change the consumer behaviour in order for them to make healthier choices by using the nudge theory, we had to add a nudge to the observation. We needed to frame the choices in order to push the consumers in a direction where we wanted them to go, but without them knowing that we wanted them to do so. During this observation, the nudge consisted of small notes with the following messages:

- Comparison of number of calories in candy and fruit.
- Recommendations from Livsmedelsverket regarding fruit and candy intake.
- Basic information regarding diets and health diseases.

The notes were placed on different places around the office and it was of great importance to put them somewhere where it was easy for the observed to be exposed to them since the purpose of this thesis was to outline if it’s possible to change consumers behaviour in order for them to make healthier choices, by using the nudge theory. Therefore it was essential to observe a group, which we knew, had been exposed to a nudge.

After three hours, 2,13 kg fruit maintained, meaning a consumption of 1,787 kg or 89,3%. In the bowl which contained the candy, 1,457 kg maintained after two hours, meaning a consumption of 0,543kg or 27,1%. In total, the consumption of fruit was therefore 65% more than the consumption of candy.

In order to increase the validity and reliability, we performed a short survey on the people that had been observed. They got to answer four different questions regarding their consumer behaviour and their answers were as presented below.
Figure 2.10. Shows the collected data from the respondents. N = 24. Men, n= 9. Women, n= 15

What the asked questions show, is that the total consumption of candy was not actually divided by 24 people, since it was only 13 of the total 24 who were being observed that actually eat candy during the observation which means that the average consumption by the people who eat candy was 5 hg divided by 13 people, namely 0,38 hg per person.

In summary, the second observation showed that:

- 10,7 % of the fruit was left in the bowl, and 89,3% of the fruit had been eaten.
- 72,9 % of the candy was left in the bowl, and 27,1% of the fruit had been eaten.
- 54% of the people being observed had been eating from the candy bowl.

5. Analysis

In this chapter, we will compare the theoretical framework with the empirical studies to outline differences and similarities with previous research. Initially, we will present a test where we will prove that there is a significant difference between the two observed groups, enabling us to reason around this fact through the whole analysis. We will also compare expert opinions from the literature with the gathered empirical data to confirm or deny some of the presented theories from the sources.
5.1 Analyzing the observations

Moving on to the observations, we started out with formulating a null hypothesis and an alternative hypothesis to either confirm or discard. This means that we performed a test to prove that there is or is not a difference between the two groups, and based on the result reason why this was the case.

We compared the fruit consumption of the two groups together with the total amounts of fruit in both groups within one formula. The test showed us that there is a significant difference between the groups, meaning that something has affected the outcome in the observation where there was a Nudge.

We put the significance level at 0.01 (1%), and the critical z at 0.01, where the probability is set by us, is 3.7190. Our observed z-value was -7.32. -7.32 < 3.7190 meaning that our observed value is lesser than the critical and thereby, we can with 99% certainty state that there is a significant difference between the two groups. Below you will find a summary of the test in a more scientific view.

Summary:

H0: \( \beta = 0 \) - there is no difference between the two groups.
H1: \( \beta \neq 0 \) - there is significant difference between the two groups.
\( \alpha = 0.01 \) \( \rightarrow \) we put the significance level at 0.01.

We performed a z-test for two population proportions of the two observations according to the formula in order to get a result where we directly can confirm or discard our null hypothesis. After discussions with members of the faculty of the university, we were recommended that the most relevant test to perform was to measure proportions of the two populations in our observation. We wanted to compare the consumption of fruit from the first observation without a nudge and the second that involved a nudge.

\[
z = \frac{(\hat{p}_1 - \hat{p}_2)}{\sqrt{\hat{p}(1 - \hat{p})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}
\]

*Figure 2.11: Formula 3.2.8 (Körner, 2000)*

Where p1=732 grams is the amount of eaten fruit during the first observation followed by p2=1787 grams which equals the amount of eaten fruit during the second observation. p=5000 grams equals the total amount of fruit in the two observation before the participants were able to
eat it and \( n_1 = 3000 \) grams equals the amount of fruit in the first observation before the participants were allowed to eat it \( n_2 = 2000 \) grams equals the amount of fruit in the second observation before the participants were allowed to eat from it.

The result of this test gave us the result of \( z_{\text{observed}} = -7.32 < z_{\text{critical}} = 3.7190 \) (\( z_{\text{obs}} < z_{\text{crit}} \)) at a significance level of 1% and \( H_0 \) is thereby discarded! There is a significant difference between the two groups.

5.2 The Nudge Theory

According to John, P. et al. (2009) the nudge theory offer a valuable framework for the choice architecture and the ability to change it since it seek to achieve alterations in the behaviour and attitude, which would contribute with improvements, not only for the individual, but also for the society in whole. In this thesis we have tried to outline the possibility to change people's behavior in order for them to make healthier choices. In other words, if it is possible to steer them in a direction that is good not only for themselves but for the society in whole. Our study show that people ate less candy when they were exposed to a nudge compared to the people in the observed group that was not exposed to a nudge.

Our observations does not match Sunstein & Thaler’s (2008) theory which states that a Nudge will only have an impact on people’s behaviour when the decisions are difficult, rare, when they don’t get prompt feedback, and when people have trouble translating aspects of the situation into terms that they can easily understand. Our observations were easily conducted, and the choice between fruit and candy is a choice that is far from rare, it is not very difficult and people should not have any problems translating the aspects of the situation into terms they easily can understand. Either you choose fruit and stay healthy, or choose candy that is the unhealthy choice. Our observations show that the Nudge has an effect even if Sunstein & Thaler’s (2008) criteria’s are not met. We believe that the result from the first observation can be explained by O’Donoghue & Rabin’s (1999) theory that overweight people consume short-term and tend to forget or ignore the long-term gains. This tendency creates weak outcomes that are suboptimal for both the society and the individual. We also believe that the result from the second observation, which show that the Nudge had an effect, is explained by the fact that it is possible to change people’s behaviour by adding a Nudge, and by doing so, provide information in a structured or framed way that affect the individual behaviour (John, P. et al., 2009).

Our study shows that even if people are aware of the consequences of eating unhealthy, they can still make poor and unclear decisions. As our survey shows, people rate obesity as the second most dangerous health risk, yet our first observation show that the participants ate 78,5% more candy than fruit. The theory of psychological discounting is believed to support this fact. The
theory states that immediacy is a major factor when we respond to offers (Frederick, Loewenstein & O’Donoghue 2002), and according to March & Olsen (1989), individuals have a tendency to strive after the rules of appropriate behaviour rather than just to maximize the utility of the decisions. We believe, that our study support these theories, since the majority of the people stated one thing in our survey (that they would choose fruit), and in our first observation, people chose candy. Furthermore, our second observation show that it is possible to alter a change in people’s behaviour by using the Nudge theory, since the majority of the observed people consumed a lot less candy and a lot more fruit.

With this in mind, we find the reason of an added Nudge’s affect is because it works as a reminder for people of the long-term benefits, and the consequences of their actions. This supports Sunstein & Thaler’s (2008) theory, that a Nudge can change people’s behaviour in order for them to make healthier decisions.

5.3 Libertarian Paternalism

There was a large amount of the respondents in the second group that were observed, who answered that the nudges, or the notes in their case, did not affect them in their decision when they were faced with the choice. 89% of the men said that the notes did not affect them, and 53% of the women answered the same thing. These numbers are considered relatively high and indicate that people are unwilling to admit that protrusive factors affect their choices. These numbers support Sunstein & Thaler’s (2008) theory that people’s freedom of choice must be considered when adding a nudge.

Our nudge was effective since it was structured and presented in a way that the consumer’s would notice it, yet it only served as a reminder for the people of the long-term benefits of their actions. The nudge was designed in a way that let the exposed people think that they made their choices by free will, and that their choice was beneficial for them as well as the society in whole, with no compulsion involved (Bonell et al. 2011).

Researchers who states that the individual choice should not be interfered, often base this assumption on the fact that people do a good job themselves of making choices, or at least a better choice than a third party could ever do according to Sunstein & Thaler (2003), but the authors also believes that there is very little empirical evidence for this claim. Mitchell (2005) states that the plan of libertarian paternalism will capitalize on the stickiness of different default rules that will try to steer people in a direction to make decisions that they are likely to choose if they did not suffer from weak self-control and impulse consumption patterns.
Our survey showed that 75% would choose fruit over candy if they were faced with the choice. However, our second observation showed that only 1 man and 10 women managed to stay away from the candy, meaning that only 45% of the observed people in the second group chose fruit over candy. The difference between the respondents to the survey and in the observation is 30%, which indicates that people sometimes think they would act in a way that they in fact wouldn’t. This is likely to depend on the fact that people suffer from weak self-control and impulsive consumption patterns. Our study therefore shows clearly that a third party can steer people into better choices than the individuals would have done themselves. Our observations also show that people will make a better and healthier choice if they are steered in that direction. Our observation clearly showed that if people are exposed to a nudge, then they are more likely to choose a healthier option.

5.4 Choice Architecture

Sunstein & Thaler (2008) states that choice architecture can make major improvements to the lives of others by designing a user-friendly environment. In both of our observed experiments we designed a very friendly and familiar environment for the participants. If we were to put them all in a randomly chosen room together, they would probably not be as comfortable as in a familiar environment. By that, the participants would probably behave more irrationally and also make their decisions based on these feelings of unsettled and a little worry. That would drain some of the credibility to the outcome and to the result of the observed experiments. Designing an environment as friendly and as familiar as ever, we think that we really optimized the opportunity to get the most honest result and reaction of the participants. According to Sunstein & Thaler (2008), many of the most successful companies of the marketplace have done just that.

To different environment were created: one with a completely free, open and uninfluenced choice, and the other with a completely free, open choice, but with a nudge to influence the participants to take the healthier option. The option that is good for them, and would be good for the society as a whole if this would be done in a larger scale. As Johnson et al. (2012) states, there are of course a lot of ways to present different choices for consumers or decision-makers and the choices are often dependant upon how they are presented. With this in mind, we really designed both observations very careful to enable both the free choice and the choice with the nudge to work out as expected.

Furthermore, Johnson et al. (2012) describes how choices can be influenced with choice architecture - varying the presentation order of the different alternatives and the order attributes are two factors. We designed the two environments the same way just to be able to have a clear, measurable way to really comprehend to possibly massive effect of the nudge. Since the two observed experiments had two completely different outcomes with basically all the elements in
the equation being more or less the same, it really proves how much the right kind of nudge in combination with a well designed environment can influence people in their decision making.

5.5 Consumer Behaviour

When we first started with this paper, we had a clear vision of which aspects to consider. By knowing and being right in the middle of the health craze that currently permeate the Swedish society and having studied consumer behaviour, we had quite a clear idea of how much the general population are affected by the expectations of being healthy, working out and having a clean diet. As Solomon et al. (2010) states, the deeper knowledge and understanding you have of how the consumers work, it is easier to make money off them. In this case, it is easier to make them choose what we want them to by designing an environment that empowers that, and also using the right type of nudge. On a larger scale and in a different scenario, where you might have bigger funds and working for a corporation, the same type of model can be used to make money instead. Since the participants of our observed experiments are not our customers, and we are not running any type of business, we did not know that much about them except for the common knowledge you have of work associates.

Solomon et al. (2010) emphasise the importance of knowing your consumers’ because it is then possible to tailor different services to your customers and by that gain competitive edge. Our opinion beg to differ since our observation shows that it is possible to steer people in a desired direction by adding a nudge, without actually knowing them. We performed our observation on two groups that we didn’t know much about and yet we received an astonishing result that refutes the theory that you need to know the consumers’ well.

6. Conclusion

In this chapter, we will conclude our research and discuss our own thoughts of why we have achieved the result in question. We will further develop the answer to our research question and what knowledge we have learned about consumers and the massive impact of certain psychological and societal elements. We will state what kind of forces we think lie underneath, what kind of further research can be done and we will also present our own model of how nudge and a well-designed environment can influence decision making.
6.1 Conclusion

Research question: *Is it possible to change consumer behaviour to more healthier alternatives by using nudge theory?*

We have through our observations found evidence that it is possible to change the consumer’s behaviour to make a healthier choice, and that an added nudge makes this possible.

We believe that the effect our experiment had, compared to how people claimed they would act in the survey and how they acted in the scenario without nudge, is directly related to each individual's self image and the influence of the current climate on health relates in the Swedish society today. Our survey clearly shows that people think that they would act in a manner that is socially acceptable, in this case, to choose healthy options over unhealthy ones.

But our observations on the other hand, shows similarities to the previous theories in the subject, namely that people might not always make decisions that are good for them, and they may not always act the way they think they do. We believe that the reason for this is people's inability to picture the long term benefits of their actions and that they have a tendency to forget the consequences of their actions. With this in mind, we believe that the reason that an added Nudge works, is because it works as a reminder for people of the long term benefits, and the consequences of people's actions.

What we can assume from the data of our empirical research, we have found a distinct direct connection of how nudge can be used as a tool to impact decision making. From what our full research show, we were able to nudge the participants into choosing the healthy option. This was possible due to the right scenario, the right environment and the right type of nudge. In a longer perspective, nudge could be used in a larger extent as a tool to make more people choose an option which is healthier for them and by that enhance their possibilities to have a much longer life. Less junk food, candy, sugar and more fruit and vegetables would increase the life of a human being. If countries were to act upon this type of method it would prolong a lot of human lives and make the world a healthier place.

6.2 Contribution

This thesis has tried to answer the research question if it is possible to change consumer behaviour to healthier choices by using the nudge theory. This has been done by conducting a survey to outline consumers perceived behaviour, and two different observations to outline customer’s actual behaviour. Our thesis support Sunstein & Thaler’s (2008) theory that you can
change consumer behaviour by using the nudge theory. We have also, throughout our thesis, developed this theory further. The Nudge theory had mostly been applied on a governmental basis before we wrote this thesis. Governments had previously tried to alter a change in consumers behaviour by adding a nudge in order for them to sorting out their garbage and paying their taxes. We successfully applied the nudge theory on a business to consumer basis, by showing that by adding a nudge, you can alter a change in consumer’s behaviour. The reason that people need to be exposed to a nudge is that psychological discounting (Frederick, Loewenstein & O’Donoghue 2002) will make their decisions unclear and imperfect. A nudge will work as a reminder for the consumers’ about the long-term benefits of their actions and can therefore be used by companies. Much of the previous research within this area proved that Nudge could be used within grocery stores, shopping malls and also to increase people’s frequency of paying taxes and similar costs to the government. What this research is contributing with to the existing research is the way a nudge is able to directly influence people at the point of a decision, at the actual time when the decision-making process is running in the human mind, when in a situation where one of the most basic human needs is tested - hunger.

By changing the choice architecture and add a Nudge, a company can alter a change in consumer behaviour. The nudge however needs to be structured and presented in a way that will make the consumer believe that they have made the choice by free will.

6.4 Reflection

Our own reflection of this thesis is presented below. This reflection is purely speculative, and it is our own thoughts of what we were not able to prove during this project. We will speculate on what forces we believe lie underneath, and what could be a further explanation to this phenomenon and why these results arose. These speculations will also have a connection to the theory presented earlier.

6.4.1 Possible other non-proven explanations

When it comes down to our survey and the relationship between it and our observed experiments, we have discussed the theories of self-image among ourselves. As Solomon et al. (2010) states, there are two types of the self: the realistic actual self, and the more idolised self. Sirgy (1982) discusses how product consumption symbolizes one’s personal attributes, motivation and current social patterns while symbolic consumption reflects more on the personality and lifestyle of the consumer, expressing the social distinctions, and serves as a vehicle of self-expression (Aaker, D.A., 1996). We believe that one possible explanation that our respondents said that they would choose fruit over candy might be that they are trying to live up
to the health demands that exists in the society today. People want to personate themselves in a way that is socially accepted and desirable. There is such a huge amount of information and studies available that show exactly how a bad diet in combination with an unhealthy living can shorten human life and also the risk of different types of fatal or very serious illnesses. The human race has for a very long time been aware of the bad impact that this type of living has. It is just now that it has become so extremely relevant because of high physical, beauty and health standards. There is also the current state of more and more people working out and eating healthy to get faster and more distinguished results in physicality. Also because it prolongs life. But, we believe that it also has triggered a trend where people follow the initial group of people based more on the fact of it being a trend in society rather that they care much about living healthier.

One thought that we have of the data from the survey and the observations are that the participants of the survey had their ideal selves managing the response part. Although, it was not the same participants, but we believe that the factors - similar age, men and women, level of education, currently working or studying, respondents from Sweden and no fitness extremes nor the opposite - point to the fact that the same respondents probably would have given the same result.

The response of our participants is also something that is in line with the current climate in the Swedish society. It is the response that in the eyes of the general public has the highest acceptance mainly because health and diet is one of the main current talking points in Sweden. It is highly desirable (socially) to state that you rather eat fruit because it is healthier, tastes better and gives you more energy than candy. But as our research show, stating one thing in theory does not guarantee that the same action follow when in the actual situation.

We believe that the self-image congruence could play a big part too. By responding to the survey the way that the majority did, they have achieved more congruence and got themselves a little closer to their ideal self. To further emphasize this theory, Aaker (1996) describes consumption as a vehicle for self-expression. We think that you want to express yourself in the most desirable way, i.e. by being your ideal self whenever possible. In the scenario of answering a survey, it is pretty easy to answer what is socially desirable and by that letting your ideal self provide the answers. It is easy and does not come with any consequences, or repercussions.

6.4.2 Our ethical concerns

We are also aware of the fact that we, through this thesis have tried to manipulate people in a way that will move them from a decision that is bad for them, but that they would prefer, to a decision that is good for their health, but that they did not really want. This manipulation was
successful since we succeeded to alter a change in consumer behaviour. To do the exact opposite may seem easier, to change consumer behaviour in a way that will lead them to imperfect and unhealthy decisions. With this said, the Nudge theory will most likely be able to use in order to further increase a behaviour that is negative for the individual but also for the society in whole. In other words, Nudging them to unhealthy products.

This research and the existing research on Nudge, is a very interesting ethical concern. At one point, a government could make use of this tool to prolong the life and raise life quality of its citizens at national level over time. At the other side of the spectra, companies driven by profit and maximizing sales, could make use of this technique to try to manipulate consumers to buy their products, no matter if they are good or bad, just to gain market shares and sell products. But who is to say that manipulation in any way is fine? It is easy to debate on the fact that governments should pursue this on a national level to make people more healthy, but why would that be more socially preferable than manipulating people to buy your product no matter if it is healthy or not? Manipulation by definition is to change perception or the behaviour of others through deceptive and even abusive tactics. In our opinion, it sounds fantastic in theory for countries to try and make their citizens a healthier people and by that, increase life quality and prolong life, but in reality every human being have the right of making decisions freely. This method has for us proven to be highly effective, and with resources and possibility to perform on a higher scale, it would probably give similar results no matter where it would be adapted. We however urge people to treat this tool carefully, and not use it in a way that would trick innocent, unaware people to make the choice one wants them to.

6.5 Conceptualisation

As previously mentioned in the frame of reference Salomon et al (2010) describes a state of conflict in the consumer’s mind which can occur when the individual wants a product but wish to avoid it at the same time. This conflict is called the Approach-Avoidance conflict and is presented in the model below.
According to Frederick et al (2002), individuals have a tendency to make unclear and imperfect decisions. This will then force a shift in the approach-avoidance conflict model to the left. However, our thesis shows that it is possible to change consumer’s behaviour by adding a nudge. The nudge effect will therefore shift back the weight to the healthier option as it reminds people of the long-term benefits of their actions.
6.7 Suggestion of further research

In this paper, we have outlined the possibilities’ for changing consumer’s behaviour in order for them to make healthier choices by using the Nudge theory. This theory is a relatively new, innovative and has only been applied by governments before we applied it on consumer’s behaviour on food consumption. We managed to identify a clear difference between the two observed groups that showed that by adding a nudge, you could create a change in consumer’s behaviour.

With this in mind, we suggest further research where authors apply the Nudge theory on other industries than the food industry, or on specific companies’. Further, we have concentrated our thesis to see if the Nudge theory is applicable on the Swedish market and consumers’. Therefore, we suggest further research where the authors apply the Nudge theory on other foreign markets, for example the Asian or American market where people might have different attitudes towards food consumption.

As previously mentioned, we have tried to manipulate people in a difficult way by nudging them to make healthier choices. It would seem easier to nudge people in a way that will drive them to do imperfect and unhealthy decisions, and nudge them to unhealthy products. We suggest further research where the authors apply the Nudge theory and try to nudge people to do bad choices that are unhealthy for them. It would be interesting to see if the result would be the same or if significant differences can be detected.
References


http://www.slv.se/sv/grupp1/Mat-och-naring/Maten-och-var-halsa/


Page: 4, 3, 5, 6


Appendix

Questionnaire

Gender
Men □
Women □

How often do you eat sugar more than once a week? (Added sackaros, in ex candy or cookies)

Very often □
Often □
Rarely □
Very Rarely □
I Never eat sugar □

Rank the following health risks. 1 = Most dangerous and 5 = Less Dangerous

Smoking □
Obesity □
Alcohol □
Traffic Noise □
Work Injuries □

Imagine that you are hungry and your blood sugar is low. In front of you, you have two bowls, one with candy and one with fruit and you have to make one choice. What do you choose?

Fruit □
Candy □

How often do you eat at least 500 grams of fruit and vegetables?

Very Often □
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<tr>
<td>Very Often</td>
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<tr>
<td>Often</td>
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<tr>
<td>Rarely</td>
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<td>Very Rarely</td>
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<table>
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<tr>
<th>How often do you shop for groceries that you hadn't plan to shop?</th>
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<tbody>
<tr>
<td>Very Often</td>
</tr>
<tr>
<td>Often</td>
</tr>
<tr>
<td>Rarely</td>
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<tr>
<td>Very Rarely</td>
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<table>
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<tr>
<th>How often is it planned when you eat sugar?</th>
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<tbody>
<tr>
<td>Very Often</td>
</tr>
<tr>
<td>Often</td>
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Johan Elmqvist
Johan Thorell