Towards a circular economy:

A qualitative study on how to communicate refurbished smartphones in the Swedish market

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Abstract
As there are more than 1.4 billion smartphones sold every year in the world and around four million smartphones in Sweden. In recent years there has been a growing concern to move from a linear economic system to a circular economic system. Smartphones and other electronic equipment stand for the largest growing waste streams in the European Union. The rising prices of raw materials used in smartphone manufacturing over the last decades, along with the fact that these minerals are being mined in conflict stricken areas and the growing environmental awareness among people makes the refurbished smartphone’s market very current. Thus, it is of great interest to investigate consumer behaviour linked to refurbished smartphones as it is still in its early stages. As such, many of the barriers identified in this thesis can be linked to the communication of refurbished smartphones.

The purpose of this thesis is to get a deeper understanding of how companies can communicate to break the barriers that exists for the consumer acceptance of refurbished smartphones in the Swedish market. Earlier studies have also focused on refurbishment as a concept rather than the consumer’s responses towards it. The study will be conducted in Sweden which has not been done previously. Therefore, our study will contribute to a deeper understanding of the consumer behaviour in the refurbished smartphone market in Sweden and thus aid companies in their communication of refurbished smartphones. To fulfil the purpose, a qualitative study has been conducted through semi-structured interviews. The sample groups were environmental enthusiasts, technology experts, refurbished product buyers, second hand buyers and companies. From the interviews five themes were derived: initial response, benefits, risks, barriers and communication.

The findings and conclusions of the thesis are derived from the themes and subthemes that were created. There are many barriers and risks that make people avoid purchasing refurbished smartphones. The findings suggest that the consumers’ initial response are generally very positive and many consumers would consider a refurbished smartphone as their next smartphone purchase. Another finding is that a lack of knowledge about refurbishment lead to doubts about refurbished smartphones. The barriers found were lack of awareness, lack of thrill of newness, naming of refurbished products and lack of knowledge. The largest barrier, was lack of awareness. A solution to resolve this barrier could be to communicate the refurbishment process. A major finding was that the environmental aspects were a vital purchase criteria for the consumers, however, not the most vital aspect. Moreover, societal benefits were raised regarding refurbished products in terms of benefitting the entire society. The biggest risk detected in the study was the performance, risk as the consumer may believe that the smartphone will be in a poor condition even though it has been refurbished. A big risk was the financial risk in terms of the substantial price for a refurbished smartphone. To reduce this the companies could adapt to the market standard and sell their refurbished smartphones in package deals. Our findings suggest that price should be communicated in combination with warranty and also environmental aspects, however, the environmental aspect is often abstract. The
companies should consider using branding more to communicate these messages. Word of mouth was seen to be important and companies should utilise customer reviews more. In terms of emotional and rational appeals both should be used, however, what appeal that the companies should focus on emphasise on is not obvious.
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Sebastian Holmström
1. Introduction

In this chapter we will introduce the chosen research field, present the problem background and explain why this is an important topic. Moreover, we will outline the research gaps and articulate our thesis purpose and our research question. The chapter will end by discussing the delimitations associated with the study.

1.1 Choice of Subject

Refurbished products and more specifically refurbished smartphones were chosen as a study object since it is both a large sustainability problem as well as an economical problem. Refurbishment is the process of restoring the product to a satisfactory state in regard to the original specification and is one solution which gives the phone a longer life (Rathore et al., 2011, p. 1710). This will be investigated from a consumer behaviour perspective in order to understand the consumer acceptance of refurbished smartphones and how they can be communicated and thus become an option for more consumers. According to Statista (2017) roughly 1.6 billion smartphones were sold worldwide in 2015. As such, smartphones constitute one of the fastest growing waste streams in the EU (European Commission, 2017). In Sweden around four million phones are sold each year which means that phone users change their phones on average every 30th month (SCB, 2016). This is comparable to other developed countries such as United Kingdom 22.4 months, United States 21.7 months, France 30.8 months, Germany 45.7 months and Finland 74.5 months (Entner, 2011, p. 2).

Since smartphones are generally only used for a short period of time and then disposed, there is a large opportunity for the refurbished market of smartphones to extend the lifespan of smartphones. The growing importance and awareness of environmental problems among consumers over the last decades shows the potential of refurbishment (Min & Galle, 1997, p. 10). However, companies should not only care about refurbishment for environmental reasons solely as there is a huge economic potential in refurbishing (Geyer & Blass, 2010, p. 523; Linton, 2008, p. 298).

The number of smartphones sold annually is consistently increasing and as of 2015 the sales to end consumers reached over 1.4 billion units worldwide (Statista, 2017). At the same time, according to the European Commission’s study for eco-design working plan (cited in Legal, 2014), it is estimated that there were over 1.6 billion phones in EU alone that were no longer active in 2012 and this number is expected to double by 2020. Meanwhile it is estimated that only seven percent of the phones are disposed properly. Moreover, up to 90 percent of the world’s electronic waste is illegally traded and dumped every year, and African countries such as Ghana and Nigeria are turning into e-waste hubs (Nichols, 2015). Waste of electronic equipment such as computers and cell phones is one of the fastest growing waste streams in the EU (European Commission, 2017). It has gone from nine million tonnes of waste generated in 2005 to an estimate of twelve million tonnes by 2020 (European Commission, 2017). Moreover, the production requires scarce
resources such as gold and uses up to ten percent of the total amount of gold worldwide in the production today (European Commission, 2017). Furthermore, scarce resources (especially coltan) is a major factor for the instability and duration of the war in Congo (Montague, 2002, p. 104). According to Montague (2002, p. 105) the demand for coltan has rapidly increased in the late 1990’s following the technology industry boom. Additionally, other metals are sold onto the Western markets such as gold, copper and cobolt, which have helped rebel groups to finance themselves (Montague, 2002, p. 104).

The rise of prices for raw materials and awareness of environmental issues makes this subject a current matter to solve in many different areas and for different types of policy makers as well as for companies (Welfens et al., 2016, p. 119).

Consumer behaviour in regard to refurbished products is in its early stages with few studies conducted in this context (Van Weelden, 2016, p. 752). Van Weelden et al. (2016, p. 744) investigated the consumer acceptance of refurbished phones in the Dutch market and there were many barriers that were found that prevent the consumer from purchasing refurbished smartphones (Van Weelden, 2016 p. 746). Therefore it is of great interest to investigate the consumer acceptance of refurbished smartphones in a Swedish context and how communication is used to get consumers to choose refurbished smartphones instead of new smartphones.

We want to contribute to this field since we can see both the economic and environmental benefits for companies shifting towards a circular business model of smartphones. This topic is interesting for us because the vast amount of smartphones consumed today is not sustainable and the resources will not last forever. Therefore, it is important to create new circular business models around smartphones where we firstly reuse and refurbish the smartphones and further use the materials in the phones instead of new virgin materials. For this to happen we believe that there has to be a shift in the consumer's behaviour and the way consumers look upon smartphones. To create a sustainable world we need to rethink many of the ways we consume today and many environmental issues have gained a lot of interest by the public in the recent years. However, reuse of electronics has been an important subject that has been overlooked and therefore by writing this thesis we want to contribute to creating an awareness of refurbishment and making refurbished smartphones more appealing for consumers. We believe that refurbishment can benefit the companies, consumers, the society and last but not least the environment. To create a more sustainable future, we believe that we need to make a shift towards the circular economy and closing the circles. We further believe that sustainability is not about the faraway future but it is about acting now. In order for a company to act now it cannot only be sustainable but rather needs to make business sense first to be truly sustainable.
1.2 Problem Background

There has been an increased focus on moving from a linear economy towards a circular economy during recent years (Ghisellini et al., 2016, p. 11). The linear economy is being defined as converting natural resources, via production, into waste (Murray et al., 2015, p. 371). The circular economy is an economy that by its design is regenerative and restorative (MacArthur, 2013, p. 7). As such, the intention of the circular economy is to keep materials, components and products at the highest value and utility at all time (MacArthur, 2013, p. 7). A linear economy causes issues for the environment, by mining natural is being removed and therefore the natural capital is losing value while pollution and waste is created (Murray et al., 2015, p. 371). The linear production processes and the throwaway mentality has become a part of the Western society (Edbring et al., 2016, p. 5). To move towards a more sustainable production and consumption it requires changes in today’s linear mainstream economics and business models (Edbring et al., 2016, p. 5).

For a circular economy to flourish it is important that different models of consumption are accepted (Edbring et al., 2016, p. 5). Business models in the circular economy are based upon: renewability, longevity, reuse, upgrade, repair, capacity sharing, dematerialization and refurbishment (Lacey, 2014, pp. 12-15). These alternative business models are models concerning a more circular flow of materials, both in terms of the production and consumption phase (Edbring et al., 2016, p. 5). However, there is not much knowledge about these consumption models or about how customers perceive them (Edbring et al., 2016, p. 6). Therefore, we have chosen to investigate the consumer behaviour in regards to refurbished smartphones in the Swedish market.

Customers with or without pro-environmental attitudes may show concern about the reduced functionality of refurbished products (Harms & Linton, 2015, p. 895). The customers who have pro-environmental attitudes may, however, value refurbished products higher than customers with lower degrees of pro-environmental attitudes (Harms & Linton, 2015, p. 895). However, the more knowledge consumers have about recycling and environmental issues, the stronger they see the benefits of buying green products (Harms & Linton, 2015, p. 895). According to Vorasayan and Ryan (2006, p. 370) the price for refurbished must be decided with caution due to it will determine the demand for refurbished products, thus affecting the profits of a company. The willingness to pay increases when consumers have a positive attitude towards environmental issues (Harms & Linton, 2015, p. 901). Vorasayan and Ryan (2006, p. 370) also argue that when there is no capacity to meet the demand for new products, refurbished products can fill that capacity gap. Nevertheless, a consumer values a product by its quality and therefore the consumers’ willingness to pay is affected by how the consumer perceives the quality as well (Vorasayan & Ryan, 2006, p. 372). Furthermore, Vorasayan and Ryan (2006, p. 371) discovered that when the quality of a refurbished product is perceived as good as a new product, the consumers can be indifferent between the two product types. The study by Harms & Linton (2015, p. 901) also states that if a third party provides information about
the product’s use or ownership history it has a positive impact upon how consumers perceive refurbished products. This addresses an important issue of key importance for this thesis: that it is vital for firms to provide its customers with the right information to stimulate them to purchase refurbished products.

Prior to conducting the study we contacted the major phone retailers in Sweden to see what happens to the phones after being returned to them. All the four major mobile phone retailers in Sweden have a take-back program for their phones, however, only one of them sells them refurbished in Sweden once again (Table 1). The manufacturers are required to recycle the phones correctly in Sweden, however, the main retailers collaborate with companies that refurbish mobile phones, which later are sold to retailers in Europe and thus lose control of the product (Crona, 2016). Many smartphones end up in countries as India and Kenya where older models still have value on the second-hand market, it is estimated that around twenty percent of the smartphones end up in these two countries however, most of the electronic waste is dumped illegally in mainly African countries (Nichols, 2015; Crona, 2016). In context, around four million new smartphones are sold every year in Sweden which has led to increasing worldwide emissions due to our consumption (SCB, 2016). There is a huge potential for companies in the refurbished market to save a lot of materials used and thus lessen the impact on the environment but also doing this in a profitable manner (Geyer & Blass, 2010, p 523). This study aims to understand the consumer acceptance of refurbished smartphones and further to provide companies and their managers with information about how to communicate to overcome the barriers for refurbished smartphones.

<table>
<thead>
<tr>
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<th>Take back program</th>
<th>Sells refurbished smartphones</th>
<th>Company that refurbish their smartphones</th>
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<tr>
<td>Tele 2</td>
<td>Yes</td>
<td>No</td>
<td>Redeem</td>
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<tr>
<td>Telia</td>
<td>Yes</td>
<td>No</td>
<td>Redeem</td>
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<tr>
<td>Telenor</td>
<td>Yes</td>
<td>No</td>
<td>Conmodo</td>
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<tr>
<td>Tre</td>
<td>Yes</td>
<td>Yes</td>
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Table 1. Sweden's four largest phone retailers and their end of life management of smartphones. Data: own interviews.

1.3 Research Gaps
Considering this background it is clear that we have an unsustainable consumption of smartphones. The focal concern for research on refurbishment and remanufacturing has often been on business to business and not the consumer behaviour where there has been a lack of research (Van Weelden et al., 2016). This could be because of the origins of
refurbishment being in business to business (Van Weelden et al., 2016). Previous studies have focused mainly on willingness to pay (Harms & Linton 2015; Michaud & Llerena, 2011), cannibalization (Guide and Li, 2010; Atasu et al., 2010), the profitability of refurbishment (Linton, 2008; Geyer & Blass, 2010), the product design (Hatcher et al., 2011; Nasr & Thurnston, 2006) and logistics (Östlin et al., 2008; Geyer & Blass, 2010). Previous research about the consumer behaviour of refurbished goods has focused mainly on the consumer in the purchasing situation such as the willingness to pay and there has been less focus on how they arrive to that purchase situation (Van Weelden et al., 2016).

The consumer acceptance, the barriers that exist, different customer groups and the consumers purchase intention of refurbished smartphones has been researched in the recent years (Van Weelden, 2016; Mugge et al., 2017). However, these aspects have only been researched in one cultural context before. The barriers that were found for refurbished smartphones was lack of awareness, lack of availability, lack of the thrill of newness and misconception of the refurbishment concept (Van Weelden et al., 2016, p. 747). Mugge et al. (2017) found several incentives for getting people to purchase refurbished smartphones; the highest scoring incentives were all product-related like improved battery, upgraded performance and guaranteed software updates. Mugge et al. (2017) also identified six customer groups and their different attitudes towards purchasing refurbished smartphones. The groups were casual supporters, sustainability enthusiast, conservative critic, susceptible follower, technology experts and proud power user (Mugge et al., 2017, p. 291). Casual supporters, sustainability enthusiasts and susceptible followers who were 46% of the sample had a positive attitude towards refurbished products and thus refurbished products could be a market success if marketed correctly (Mugge et al., 2017, p. 293). While proud power users and technology experts have a larger awareness of the refurbishing process, however, they are not likely to purchase refurbished smartphones since it will not meet their expectations (Mugge et al., 2017, p. 293). Awareness of refurbishing and the perceived environmental benefits affected the consumer purchasing intention positively (Mugge et al., 2017, p. 293). Further, how to communicate in order to overcome these barriers is something that has not been investigated yet. This field has been under-researched from the consumer behaviour perspective and more knowledge about the consumer behaviour will be needed for companies to overcome the barriers and successfully understand the customers and thus unleash the full potential of the refurbishment market.

Van Weelden et al. (2016, p. 752) says that research on consumer’s response towards refurbished products is still in its early stages. Thus, very little is known about the consumer behaviour and how it affects the consumers’ decision to buy either refurbished or new products (Van Weelden et al., 2016, p. 744). It is important for managers to understand the consumer and how they acquire the information before they purchase a product (Murray, 1991, p. 10). This may lead to issues regarding how to set up working strategies or how to conduct everyday activities within a firm in this branch. Many other factors has been widely researched in terms of refurbishment as a concept, however, most of them have been quantitative been focusing on the purchase situation and not the earlier

We will conduct a qualitative study to, firstly, develop and deeper understanding of consumer acceptance of refurbished smartphones and, secondly, investigate how a company can communicate to break the existing barriers. We want to look more deeply into the early stages of the consumer decision-making process to see how communication can break the barriers for consumers to purchase refurbished products. Earlier studies have put more focus on the later stages of the consumer decision-making model where the consumers evaluate the benefits and risks, however, less focus has been given on how the consumers arrive to that stage (Van Weelden et al., 2016, p. 744). According to Van Weelden et al. (2016, p. 744) previous studies has investigated refurbishment as a concept rather than focusing on the consumer’s response towards refurbished products. We aim to look deeper and beyond refurbishment as just a concept but into the consumer’s response and their behaviour towards refurbished products as well as the communication.

This study will be conducted in Sweden which will be one of the first studies conducted in Sweden within the context of refurbished smartphones. Previous studies about consumer behaviour and refurbished products have been conducted in the Netherlands. Van Weelden et al. (2016, p. 752) claims that future research should be carried out in other cultural contexts than The Netherlands, to bring in valid results and see if there are similarities and or differences between the two contexts. Hence, our study will look into the consumer acceptance in another cultural context and further look into how the companies can communicate to break the barriers.

These research gaps are vital to fill since it is of great importance to get a better understanding of the consumer behaviour and thus understand the consumer acceptance and the communication related to refurbished smartphones. This understanding will aid managers to develop their marketing for refurbished smartphones. We want to aid the refurbishment companies, but also the larger phone retailers to understand the customer acceptance of refurbished smartphones and how that can be communicated, and thus implement a circular business model for smartphones.

1.4 Research Question

*How can companies communicate to break the barriers for the consumer acceptance of refurbished smartphones in the Swedish market?*

1.5 Purpose

The main purpose of this thesis is to gain a deeper understanding about the barriers for the consumer acceptance of refurbished smartphones and how companies can communicate in order to overcome the barriers. In order to fulfil the purpose of this study we will conduct a qualitative study, based upon interviews from consumers of refurbished
products, second hand products, sustainability enthusiasts and technology experts as well as marketing managers from companies active in the refurbishment market. By using this method this study aims to make both theoretical and practical contributions, these contributions will be derived from a theoretical framework and be examined and further developed. In practice this study will serve as a guiding tool for managers. We will originate from a consumer decision-making process for refurbished products to understand why consumers are and are not purchasing refurbished smartphones. Previous research has been focusing mainly on how a consumer purchases refurbished products and not how to communicate refurbished products. A qualitative study will enable us to answer our research question since we want to look at the consumers to get a deeper understanding of their acceptance of refurbished smartphones and how to communicate to break down the barriers and move towards a more sustainable consumption of smartphones.

1.6 Delimitations
The circular economy is divided into two different cycles, the biological and the technical (MacArthur, 2013, p 24). This paper will focus on the technological cycle which contains four different circles: Share, maintain/prolong, reuse/redistribute and lastly the outer circle is refurbish/remanufacturing & recycle (MacArthur, 2013, p 24). This goes in line with EU’s waste hierarchy, the smaller the circle is the larger environment benefit it is, more energy and labour put into the product are saved and thus more material is preserved (European Commission, 2017; (MacArthur, 2013, p 8). In order to delimit this study, we will focus on the outer circle where the products are refurbished/remanufactured instead of being recycled, incinerated or landfilled. This circle is important since refurbishment keeps the materials in use for a longer time and thus saves a lot of energy and labour that were put into the production (MacArthur, 2013, p 8).

We chose to use the study by Van Weelden et al. (2016) as a theoretical base. Our study will be based upon the consumer decision-making process and how the consumer arrives at the purchase situation, however, the study will further delimit and focus more on the communication and how the companies can communicate to overcome the barriers and thus advance the consumer in the decision-making process. This delimitation was made since most consumers never even consider a refurbished product because of lack of awareness (Van Weelden et al., 2016, p. 746). Therefore, our study will focus more on the earlier stages of the process so that refurbished smartphones will become an option for the next smartphone purchase. This will be done by firstly looking into the consumer acceptance of refurbished smartphones, and later focus more on the earlier stages and how to communicate to make the consumer advance in the decision-making process to consider a purchase of a refurbished smartphone in the future.
2. Scientific Method

In this chapter we will present our scientific method. We will present our pre-understandings of the subject, the ontological standpoint and the epistemological standpoint we will approach the study from. Further, we will also argue for our chosen research design and research approach. Lastly, we will discuss our literature search.

2.1 Pre-understandings

Pre-understandings are necessary to acknowledge in research efforts because one always starts with some ideas to see what to look for in order get a focus point in the research (Gilje & Grimen, 2007, p. 179). To be aware of one’s own pre-understandings is necessary, otherwise important explanations may be left out or not explained properly (Gilje & Grimen, 2007, p. 183). Initially we want to mention that our academic background will have some impact on our pre-understandings since we have studied consumer behaviour previously. We also want to mention that not all of our pre-understandings will be presented but only those that we see as relevant to the study.

It is important to consider the researcher’s prepositions and earlier experiences because the researcher’s social background plays a part in the prepositions (Johansson-Lindfors, 1993, p. 25). Therefore, we would like to shed light on our previous experiences about the subjects discussed in this thesis. One of us has been taking online courses in circular economy and had an internship at a company with a circular economy mind-set and business model. Both of us have been taking part in lectures provided by the organisation Cradlenet which is an organisation that spreads information about the circular economy (Cradlenet, 2017). Since we ourselves are consumers and we are examining consumer behaviour it is important to take our own consumer behaviour into account. One of the authors has bought a refurbished computer and a Fairphone which is a modular smartphone and therefore has some knowledge about the process of buying refurbished products. The other author has chosen to purchase new products instead of refurbished products. Our differences here can be vital for our study to not become biased towards either direction.

We have also been working within different sectors which have made us aware about real life issues and the forces that drive consumer’s choices and their behaviour in buying situations. Both of us are business administration students, but in different programs. We are also from different cities and can thereby account ourselves with different values and experiences. It may also be worth to mention that we both own smartphones and thereby know how and why they are used, and as consumers we have gone through the steps of the decision-making process ourselves. A scientist’s values can be seen as a reflection of his/hers opinions and plays a role throughout the research process, in the choice of research field, choice of methods or conclusions etcetera. (Bryman, 2008, pp. 43-44). We believe that these differences in our pre-understandings will contribute and complement each other. The experiences may have an impact on the way in which we approach the
research problem, nevertheless we will to the best of our ability highlight the problem as thoroughly as we can. Our pre-understandings will not affect the outcomes of the study in a negative way, but is the reason for our choice of subject.

2.2 Ontology
Ontology entails the form and nature of social entities, how the social entities are to be perceived as objective towards social actors, or if the social actors can affect the entities by their actions (Bryman, 2008, p. 35). Thus, ontology is concerned about the nature of reality and raises questions about how the world works and to what extent it works (Saunders et al., 2012, p. 130; Tuli, 2010, p. 101). There are two main outlooks onto ontology; objectivism and constructionism (Bryman, 2008, pp. 35-36). Objectivism is a standpoint which means that social phenomenons are based on external facts and are something that cannot be influenced by social actors (Bryman, 2008, p. 36). According to Saunders et al. (2012, p. 132) the constructionist standpoint posits that the social phenomenons are being revised and developed consistently and that the reality is socially constructed rather than as argued in the objectivist approach where the social phenomenons are based on external facts.

We choose a constructivist approach on the study since it supports our purpose. Therefore, we intend to conduct a qualitative study. We believe that in terms of the consumer behaviour aspect, consumers’ search criteria and perceptions for smartphones change over time and is not pre-existing. Thus, we did not choose objectivism due to it is based on the idea that external factors cannot be influenced by social actors (Bryman, 2008, p. 36). This is something that we do not think agrees with the outlook of ontology in this study due to, as mentioned above, a consumer’s perceptions are influenced by social actors. To get a deeper understanding about the variety of factors affecting a consumer is something we, as stated above, see as not pre-existing and consistent and therefore a constructivist approach agrees with our research method. As we see it in the context of refurbished smartphones, social actors can be influenced by external factors which means that an objectivist standpoint does not fit our study. Moreover, our interpretations of the information will be presented and these interpretations are subjective and therefore cannot be observed objectively.

2.3 Epistemology
Epistemology refers to what is claimed to be acceptable knowledge or what is knowledge within an area of study (Bryman, 2008, p. 29; Saunders et al., 2012, p. 132). A central assumption is concerning what it means to know, how the knowledge is communicated, acquired or created is central in epistemology (Scotland, 2012, p. 9). Epistemology consists of three main orientations: positivism, realism, interpretivism (Saunders et al., 2012, pp. 134-140). Positivism is a theoretical standpoint that advocates scientific methods originating from the natural sciences where the researcher’s task is to test theories and provide material to develop laws (Bryman, 2008, p. 30). Furthermore, theoretical concepts which cannot be observed will not be seen as science (Bryman, 2008,
The research conducted should also to as great extent as possible be value-free and the researcher is argued to be external to the process in order to stay objective (Bryman, 2008, p. 30). This is the general assumption and the outcomes of the studies will be objective as a consequence of this (Saunders et al., 2012, pp. 134-135). Realism’s philosophy is built on the assumption that the reality is independent of the mind (Saunders et al., 2012, p. 136). As such, it is similar to positivism due to it assumes that there is an external independent reality in one’s paradigm (Saunders et al., 2012, p. 136). However, realism may be hard to apply to a social science setting due to the principles of the natural sciences and positivism are so different from the social sciences and the social reality (Bryman, 2008, p. 31). The interpretivist orientation emphasises the importance of understanding the differences between humans and objects when conducting research. It is of importance within business and management research, and especially in marketing, due to the uniqueness of the situations occurring (Saunders et al., 2012, p. 137). It is also vital to adhere in the context of interpretivism that we as humans interpret the world around us and the actions of others differently (Saunders et al., 2012, p. 137).

We believe that the interpretivist orientation is reasonable in the context of refurbished smartphones here in Sweden since few studies have been conducted in this context. The consumers therefore need to be in focus to see how they interpret the concept of refurbished smartphones. This study emphasises the consumer acceptance for refurbished smartphones and how companies can communicate to persuade consumers to purchase refurbished smartphones. The interpretivist orientation becomes important to this study since the consumers interpret the world around themselves. It becomes relevant for us to use this orientation because the refurbished smartphone consumers have to interpret a new market phenomenon. Additionally, positivism and realism follow a scientific approach which assumes external independency in one’s reality. Thus, we chose the interpretivist approach due to it focuses more on interpreting and adhering different contexts.

2.4 Research Approach

There are three main types of approaches a study can take: deductive, inductive and abductive (Saunders et al, 2012, pp. 143-144). Deductive is the most common approach practiced in the natural sciences and explains the relationship between theory and reality (Bryman, 2008, p. 26). The deductive approach tests theories to see if they are viable in the given context (Bryman, 2008, p. 26). Abduction starts with the discovery of a fact that is interesting to know how it occurred (Saunders et al, 2012, p. 147). According to Saunders et al. (2012, p. 147) abduction could occur in the middle of a study and therefore may work as a complement to the deductive and inductive approaches. An inductive approach is used to understand a problem in depth (Saunders et al, 2012, p. 145). The main focus according to Bryman (2008, p. 40) is to generate theories rather than quantifying the data as in a quantitative study. The qualitative approach is often connected to the inductive approach which puts more focus on different individual’s outlook on their
reality and the qualitative approach aims to include a reality which is in constant

As mentioned above, this thesis aims to conduct a qualitative study and is based on
theories in consumer behaviour and communication. The inductive approach aims to
understand a problem deeper and generate theories which we aim to do with this study.
This study will put focus on different individual’s outlook on their reality which supports
the inductive approach choice. Moreover, it makes quantifying the data for results
undesirable in our study as it will not aid our results or objectives. Nevertheless, the
research field of refurbished products has mainly been adapted to the purchase decision
and how a consumer purchases refurbished products and less on the whole decision-
making process and why they purchase refurbished products. It may also be worth to
mention that little research has been conducted in this field connected to refurbished
products before. Therefore, the aim of this study is to generate new theories to understand
how companies can communicate refurbished smartphones to overcome the barriers in
the consumer acceptance. We intend to use a constructivist standpoint in our research and
as the field is not very well studied so far, we claim that the constructivist standpoint will
support our argumentations throughout the thesis. Further, an interpretivist standpoint
will aid us in understanding this topic as consumers have to interpret a new market
phenomenon.

2.5 Research Design
In business research in general, and marketing in particular, there are two main types of
research designs to employ: quantitative and qualitative (Bryman, 2008, p. 20; Daymon
& Holloway, 2011, p. 3). Some researchers argue that the differences between these types
are becoming smaller and smaller (Bryman, 2008, p. 39). However, according to Bryman
(2008, p. 39) the differences are more evident than ever before. Additionally, the
differences go deeper than just what may be seen on the surface, where one may look at
the fundamental choices of research or the problem statements made. Moreover, they
differ in terms of ontological and epistemological stances (Bryman, 2008, p. 40).

Qualitative research tends to build on a constructivist approach whilst quantitative
research tends to build an objectivist approach (Bryman, 2008, p. 40). In addition,
qualitative studies use the inductive approach where the focus lies on generating theories,
nevertheless, qualitative studies can be used to test different theories as well (Bryman,
2008, p. 40). Our study aims at gaining a deeper understanding about how companies can
communicate refurbished smartphones to break the barriers of the consumer acceptance.
Thereby, we will use the consumer decision-making model and build on it to advance the
existing theory regarding the consumer acceptance as well as to build a new theory about
the communication of refurbished smartphones. In qualitative research the researcher
becomes more relevant to the study, since the researcher engages in face-to-face
interviews or observations online etcetera. This could lead to the researcher being part of
the entire process, both being an outsider involved in the research and being an insider
who participates in the study. The researcher can therefore be a valuable resource, by enhancing the credibility of the research (Daymon & Holloway, 2011, p. 9).

As we have argued earlier, we will use an interpretivist approach in this study which means that humans interpret the world around them and this is something that we see converge with our research design. The market for refurbished smartphones is virtually non-existent in the eyes of the consumers. This research topic in this context has not been studied in Sweden before but only in the Netherlands conducted by Van Weelden et al. (2016) and Mugge et al. (2017). Their studies are thus the foundation for our study. We aim to investigate if the same barriers, benefits and risks or possibly new ones exist in Sweden. Further, communication related to the barriers will be investigated to see how we can overcome the barriers.

In descriptive research the goal is to get an accurate description of persons, events or situations and in order to collect the data it is necessary to have a clear picture of the phenomenon that data is collected from (Saunders et al., 2012, p. 171). Explanatory studies set up causal relationships between different variables (Saunders et al., 2012, p. 172). These studies can be both inductive and deductive with the intention to describe why the relationships exist (Saunders et al., 2012, p. 377). Exploratory studies are useful to gain insights about a topic and understanding of what is happening (Saunders et al., 2012, p. 172). This kind of study is good for asking open questions and if the nature of the problem is vague exploratory studies are of great value to create a clearer understanding (Saunders et al., 2012, p. 172).

This thesis aims to clarify the understanding about the consumer behaviour in the context of refurbished smartphones since the research still is in initial stages. Thus, an exploratory approach was chosen since we want to gain insight and discover about the topic and answer our research question. As the nature of the consumer behaviour in regards of refurbishment is rather unclear today we want to contribute to the clarification of the problem. The flexibility and adaptability is an advantage of exploratory studies, and therefore we are also open in changing the direction of the study based upon the data that is collected (Saunders, 2012, p. 171).

2.6 Literature Search
A literature search has the purpose of getting to know the theories within the subject and the chosen research field (Bryman, 2008, p 98). While conducting the literature search we realised that very few studies have been made in this context earlier. Thus, a broader literature search was necessary to get the required understandings for the study. Johansson-Lindfors (1993, p. 62) mentions that social facts on the universal level is only realisable if one uses many information sources. In order to enforce this issue we initiated a broad literature review to involve as many perspectives and influences as possible. This will be done to give the reader a good pre-understanding of the research field and to present the background and reasons for our chosen subject and research question.
Furthermore, a well-written literature review enhances the credibility of the researcher conducting it, as the researcher shows knowledge about the researcher area (Bryman, 2008, pp. 97-98). The articles we have used in our study have been collected from databases as Google Scholar and Business Source Premier (EBSCO) via Umeå University Library. The articles used were made sure to be peer-reviewed to reassure ourselves about the quality of the information gathered. As stated above the research field of consumer behaviour in the context of refurbished smartphones is relatively unexplored which means we did not search for specific articles but rather articles that might give an explanation to why consumers act as they do when it comes to remanufactured and refurbished phones.

A literature search builds on going through and finding some search keywords to narrow the searching down to the specific subject, then the search can begin (Bryman, 2008, p. 113). The search keywords “Refurbished phones”, “Remanufacturing”, “Refurbishment”, “Consumer behaviour”, “Information search”, “Communication”, “Circular business models” and “Consumer decision-making process” were some of the keywords we used to get a deeper understanding about the subject. Keywords as “Circular economy”, “Refurbishment” and “Remanufacturing” were also used to find articles close to the context of this study. A variety of books have been used as a complement to the articles in order to get a broader information search and to explain how scientific research is implemented. However, academic articles were often the preferable choice due to that they contain specialised knowledge about the subject (Saunders, et al., 2012, pp. 85-86).
3. Theoretical Framework

The theoretical framework chapter contains a presentation of relevant theories. First we will discuss consumer’s value systems, further consumer behaviour will be taken up and following that the Consumer Decision-making Model will be presented and it is the backbone of both this chapter and this thesis. Second, a consumer decision-making model regarding refurbished products will be introduced to connect it to our purpose. Thirdly, we will discuss theories that are relating to message typology and information processing.

3.1 Organisation of the Consumer Value-Attitude System

According to Vinson et al. (1977, p. 44) marketers have for a long time understood how important attitudes are, and how they change over time. For researchers and marketing practitioners values and how they influence the behaviour of a consumer in terms of how they view different brands or product attributes is not always obvious (Vinson et al., 1977, p. 44). Moreover, due to the increased environmental awareness consumers have started to rethink and re-evaluate their values and beliefs in relation to products (Dembkowski & Hammer-Lloyd, 1994, p. 595). The Value-Attitude System model therefore aims to investigate why a consumer evaluates product attributes differently from each other and as a consequence prefers one brand over another brand (Vinson et al., 1977, p. 45). Rokeach (1968, p. 550) defines values as an endured belief that a particular mode of conduct or end-state of existence is more preferable than other alternative modes of conduct or end-state existences.

The model is divided into three hierarchical levels which are referred to as: global personal values, domain-specific values and evaluation of product values (Vinson et al., 1977, p. 45). Furthermore, an individual’s value system is influenced and developed by socio-cultural-, economic- and familial factors (Vinson et al., 1977, p. 45). The global value system is very centrally held and is endurable values that guide actions in different situations. According to Vinson et al. (1977, p. 45) these values are the core of the individual’s value system, they are close to the personal values and are therefore, very important in major choices with the consumer. Thus, these values are more generalizable than the other two value systems which are less centrally held according to Vinson et al. (1977, p. 45).

The second level in the hierarchy is the domain-specific value system, this is a system which is based on that consumers form their values through experiences in specific situations or realms of activity (Vinson et al., 1977, p. 45). Thus, Vinson et al. (1977, p. 45) arrives at the conclusion that values are specifically formed through economic transactions and thereby, consumption. Moreover, social values are formed by for example religious values or peer group influences (Vinson et al., 1977, p. 45). This value system is working as a bridge between the traditional global value system and the more evaluative value system that is less centrally held about products and their different attributes (Vinson et al., 1977, p. 45). Furthermore, according to Dembkowski and Hammer-Lloyd (1994, p. 598) the domain specific values coexist with the global values.
and that this is influencing a consumer’s values and beliefs about product attributes, as they are interconnected along the central peripheral route in the model. A consumer’s values are also ranked by the consumers themselves by their importance to the consumer’s life, thus, the importance of each value will vary between the different domains (Dembowski & Hammer-Lloyd, 1994, pp. 598-599).

The third hierarchical level is the evaluative belief system, this system is about what the consumer believes are the most desirable attributes of different product classes or specific brands as well (Vinson et al., 1977, p. 46). The values are closer to actual behaviour at this level due to that they can be specific to a certain object, subject or concept depending on the situation, therefore the values work as a point of reference (Dembkowski & Hammer-Lloyd, 1994, p. 600). Attitudes to an object or subject may also be affected by that individuals respond in a specific and preferable way as the attitudes are centred to the objects or subjects (Dembkowski & Hammer-Lloyd, 1994, p. 600).

3.2 Consumer Decision-making Process

Consumer behaviour is an area which developed from research within psychology, economics and sociology (Solomon et al., 2013a, p. 2). It is a field which involves processes when consumers purchase, use or dispose of products, services or ideas to satisfy their needs or desires (Solomon et al., 2013a, p. 3). The consumer goes through a consumer decision-making process to reach the purchase situation and some purchase decisions are more important than others (Solomon et al., 2013b, p. 334). The decision-making process is sometimes made almost automatically in the less important situation while in the more important situation a consumer can spend days or even weeks thinking about the purchase (Solomon et al., 2013b, p. 333). Solomon et al. (2013b, p. 355) says that the consumer decision-making model should be carefully studied by marketing managers to better understand how the consumers get their information, form their beliefs and what criteria they use to make product choices.

The consumer decision-making process model was developed by Engel, Kollat and Blackwell in 1964 and is based on previous work conducted by John Dewey (Ashman & al., 2015, p. 128). The consumer decision-making process is known as the Engel-Kollat-Blackwell model and the model’s core consists of five stages to determine a consumer’s purchase decision process. The five stages are: Need recognition, Search for information, Alternative evaluation, Purchase and Outcomes (Engel et al., 1993, pp. 40-41).

The first stage is the need recognition stage which gives an explanation about where a consumer wants to be and how the actual situation is (Engel et al., 1993, p. 40). This triggers and activates the decision-making process with the consumer (Engel et al., 1993, pp. 40-41). Depending on the complexity of the problem it can take more or less time to acknowledge the need. The need can be broad and narrow in its extent, for example if someone has the need for a drink of any kind due to thirst it is broad, or the need can be narrow when a consumer might need a new car which is more complex.
Secondly we have the search process phase in which a consumer uses various of sources including mass media, personal sources and market-dominated sources as advertising (Engel et al., 1968, p. 378). An external search process occurs when the consumer wants to spot alternatives for purchase and the alternatives desirability (Engel et al., 1968, p. 379). However, the majority of the decisions a consumer makes are probably not based on external search (Engel et al., 1968, p. 380). Interpersonal is the most frequent type of source for consumers to use when they search for market information and has a greater impact upon the actual state of a consumer’s mind (Kiel & Layton, 1981, p. 233; Price & Feick, 1984, p. 250). If the consumer is exposed to more options than they can manage, it will affect their decisions for the worse due to information overload (Malhotra, 1982, p. 419). According to the findings made by Malhotra (1982, p. 427) a consumer cannot optimally handle more than ten items at the same time and more than ten items will result in an overload of information. Moreover, this becomes more conflicted if the choices between the best alternatives are equal in the eyes of the consumer as well (Urbany et al., 1989, pp. 212-213).

Murray (1991, p. 10) argues that it is important for managers to understand consumers’ pre-purchase information acquisition process due to that the information search is an early influence on a consumer’s buying decision. Moreover he argues that the higher the perceived risk the more likely it is for a consumer to seek information about the product (Murray, 1991, p. 10). When a consumer is about to purchase a product he/she initially look back on their previous experiences, secondly, a consumer turns to information search through personal channels if formal sources have not been sufficient enough to reduce the perceived risk (Murray, 1991, p. 12; Wagner, 1997, p. 32). Nevertheless, to reduce the perceived risk word-of-mouth is the most powerful method to get around this issue, information from other people are proven to be much better than formal information channels (Murray, 1991, p. 12). Furthermore, Murray (1991, p. 19) states that because services are higher in perceived risk, the information search process may be greater for consumers. Kalafatis et al. (1999, p. 443) mentions that customers want satisfaction with a product they buy and that satisfaction is based on their own beliefs that the product will fulfil its fundamental functions and by this satisfy the customer’s needs. Kalafatis et al. (1999, p. 454) also states that personal norms have an impact upon whether customers are purchasing environmental friendly products or not.

The alternative evaluation phase is the third phase and focuses on the process to evaluate the desirable alternatives (Engel et al., 1968, p. 422). The comparison between products is rather complex as the actual and desired state needs to match (Engel et al., 1968, pp. 423-424). In a study by Greenleaf & Lehman (1995, p. 195) a longer amount of time was taken when the financial risk is perceived to be great and lower when the social or psychological risk was perceived small. Greenleaf & Lehman (1995, p. 198) also mentions that it is important to consider that in the information searching stage the consumer is changing his/her mind-set into more committed and engaged to purchase due to the information search.
The fourth stage is concerning where the consumer decides to shop (Engel et al., 1968, p. 444). Purchase processing is often problem-oriented but does not have to be and the motives for a purchase may be selective exposure, perception and retention (Engel et al., 1968, p. 445). The consumer’s resources, knowledge and attitude towards the product determines whether the consumer purchases the product or not, in the purchase stage the consumer decides that they have all of these requirements to follow through on the purchase (Engel et al., 1993, p. 53).

In the final post-purchase phase a purchasing decision has been made and extended problem-solving may arise as should we take a loan from the bank and instalment issues (Engel et al., 1968, pp. 504-505). The problem with instalment is that consumers are often short-sighted and therefore be dissatisfied, and therefore do not become a returning customer (Engel et al., 1968, p. 505). This may be due to the relationship between post-purchase perceptions and pre-purchase perceptions from the consumer (Engel et al., 1968, p. 506). In high involvement purchases post-purchase regret is common and can be alleviated by further information search (Engel et al., 1993, pp. 52-53). Nevertheless, a consumer can only determine the quality of the product by purchasing and using it, which means using experience to determine the future decisions (Nelson, 1970, p. 327).

In a study conducted by Taylor (1974, p. 54) it was shown how risk can be assessed in two ways, how the outcome is and what the consequences are. Therefore, when choosing, the risk may be perceived as a potential loss, it could be losses in terms of social loss or in terms of functional loss (Taylor, 1974, p. 54). When a consumer feels there is risk involved anxiety is not far behind, since anxiety is uncomfortable for a consumer to feel they develop ways to handle the anxiety (Taylor, 1974, p. 55). Risk is a factor which is predominant in every choice a consumer makes but varies depending on the gravity of the decision and what type of decision it is (Taylor, 1974, pp. 57-58). Perceived risk is a factor which can be affected by product attributes and consumers make a distinction between services and products when it comes to perceived risk (Murray & Schlacter, 1990, p. 61). Murray and Schlacter (1990, p. 62) also states that the post-purchase evaluation is more important for consumers when it comes to services than with products, this because a service is closer linked to personal experience for the consumer which cannot be acquired in the pre-purchase phase. Moreover, it is vital for service providers to have a service which is consistent to the consumer’s expectations towards the service (Murray & Schlacter, 1990, p. 62).

In a decision situation, a consumer may be influenced by their feelings and may even base their decision on them too (Mowen, 2007, p. 23). In a study by Olshavsky & Granbois (1979, p. 98) they came to the conclusion that a great amount of the purchases did not have a decision-making process linked to it. This was explained by that many purchases became habitual quickly and after several purchase the decision-making process did not occur anymore (Olshavsky & Granbois, 1979, p. 98). Moreover, even if a decision is based on choices it is likely that the numbers of choices are small due to limited
information search (Olshavsky & Granbois, 1979, pp. 98-99). Thus, the consumer decision-making model can only give us specific types of decision-making behaviours. This is because the consumer wants to reduce the mental and physical search efforts (Amine, 1998, p. 308).

One of the consumer decision-making process biggest critics is that it is presuming that the consumers are rational who puts a lot of effort into their purchases (Van Weelden et al., 2016, p. 745). Moreover, the consumer decision-making process does not take into consideration the impulses nor the consumer’s affective purchase behaviour (Van Weelden et al., 2016, p. 745). The model treats the consumer as a rational human being who bases its decisions on rationalism, nevertheless, a consumer will be influenced by other factors than just rational factors (Van Weelden et al., 2016, p. 745). However, for high involvement products such as smartphones, it is widely recognized that the decision-making process works well to explain the cognitive processes (Petty et al., 1983, p 137; Dahlén et al., 2010, p. 295).

The consumer decision-making process is one of the core theories in consumer behaviour, the model describes a rational approach on a consumer’s purchasing behaviour to maximise their utility (Ashman et al., 2015, p. 127). Furthermore, the model has been used in almost every textbook and is embedded as a cornerstone of consumer decision-making which may not change in a long time (Ashman et al., 2015, pp. 128-129). Consumers today search information through other consumers online and they also try to get social validation on their product choices at the same places (Ashman et al., 2015, p. 138). Thus, when the consumers proceed through the decision-making process some steps will be repeated, enhanced or even skipped meanwhile proceeding through the process (Ashman et al., 2015, p. 140). Moreover, some steps as evaluation of alternatives has been significantly shortened due to online interaction while at the same time post-purchase evaluation has been prolonged (Ashman et al., 2015, p. 140). The paper by Ashman et al. (2015, p. 141) proclaims that the decision-making process is still a useful tool to use when one wants to analyse a consumer’s decision-making in today’s shopping environment. The information search becomes much easier with the internet compared to having to go to the physical store to collect information about the products one wishes to purchase (Teo & Yeong, 2003, p. 357).

3.3 Refurbishment and Remanufacturing

The circular economy keeps materials products and its materials at the highest value at all time and refurbishment and remanufacturing is vital to keeping the products from complete dismantling (MacArthur, 2013, p. 7). Refurbishment is a process where a used product gets restored and gets brought back to a satisfactory and functional state in regard to the original specification (Rathore et al., 2011 p. 1710). A similar, yet, different concept that is important to differentiate from refurbished is remanufacturing. The focus of remanufacturing is on returning the product to a condition that is like new and meets at least the original specifications (Ayres et al., 1997 p. 569; Lund & Hauser, 2010 pp. 1-2).
Refurbishment and remanufacturing is a part of the circular economy through being a higher form of reuse and therefore saves the product from recycling and from complete dismantling and this is done by focusing on value added recovery instead of material recovery such as recycling, which means that a lot of the energy and labour used in the production is retained (Rathore et al., 2011 p. 1710; Daniel & Guide, 2000, p. 477). This study will focus on refurbished products, however, the literature review will also build on the research regarding remanufacturing since the research on refurbished products is limited combined with the comparability of the two definitions (Van Weelden et al., 2016, p. 743).

Profitability has been as the largest driver of the collection and refurbishment of end-of-use cell phones (Geyer & Blass, 2010, p 523). Linton (2008, p. 298) found that even in the most unattractive scenario where the company has a monopoly and their sales cannibalizes on their own sales, there are still many situations where the manufacturer would see its overall profit increasing by introducing remanufactured products. Guide and Li (2010, p. 627) saw a small number of overlapping in bidding for new and remanufactured products and in their study cannibalization was minimal and not an extensive problem. The largest risk of cannibalization for manufacturers in terms of remanufacturing seems to be new competitors that are remanufacturing their products for resell in secondary markets (Michaud & Llerena, 2011 p. 419).

Designing for remanufacturing is a topic that has drawn a lot of attention and is an important topic to achieve a more effective remanufacturing (Hatcher et al., 2011, p. 2012). There are many products today that could be remanufactured at the end-of-life where the design itself prevents it from being remanufactured (Hatcher et al., 2011 p. 2012). Products need to be designed for remanufacturing in order to reap the full societal benefits and this is a key element of the circular economy (Nasr & Thurston, 2006, p. 15; MacArthur, 2013, p. 7). Furthermore, for refurbishment to work it is crucial to create a steady return of flows where take back systems can benefit both customers and suppliers (Östlin et al., 2008, p. 347). The reverse logistics of smartphones seems to be wholly funded by the companies doing the refurbishing (Geyer & Blass, 2010, p. 523).

The willingness to pay for refurbished products among potential consumers has been seen to be significantly lower than for a new product (Guide & Li, 2010 p. 567; Harms & Linton, 2015, p. 897; Michaud & Llerena, 2011, p. 411). By adding an eco-certificate the willingness to pay comes closer towards the original product (Harms & Linton, 2015, p. 901). Michaud and Llerena (2011) noted that the assumption of lower willingness to pay for remanufactured goods was only true when there were a lack of environmental benefit. With the introduction of the environmental benefits it was seen that the consumer do not undervalue the remanufactured product anymore, however, rather than an increase of the willingness to pay for a remanufactured product a decreased willingness to pay for the conventional product was seen (Michaud & Llerena, 2011, p. 419). This is contrary to the willingness to pay for green products in general where the consumers are willing to pay
a price premium for the green product (Michaud & Llerena, 2011, p. 419; Sammer and Wüstenhagen, 2006, p. 196).

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<th>Research streams</th>
<th>Illustration</th>
<th>Example references</th>
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<tr>
<td>Willingness to pay</td>
<td>The willingness to pay for refurbished products is lower than new.</td>
<td>Harms &amp; Linton (2015)</td>
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<td>Michaud &amp; Llerena (2011)</td>
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<td>Atalay Atasu, et al. (2010)</td>
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<td>Profitability of refurbishment</td>
<td>Profitability is the main driving force for the collection and refurbishment of phones.</td>
<td>Geyer &amp; Blass (2010)</td>
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<td>Linton (2008)</td>
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<td>Product design</td>
<td>For the refurbish market to prosper fully products need to be design to enable easier refurbishment.</td>
<td>Hatcher et al., 2011</td>
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<td>Nasr &amp; Thurnston, 2006</td>
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<td>Logistics</td>
<td>A steady return of flow through reverse logistics is crucial for refurbishment.</td>
<td>Östlin et al., 2008</td>
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<td>Geyer &amp; Blass, 2010</td>
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Table 1. Table of research streams on refurbishment and remanufacturing

3.4 Decision-making Model for Refurbished Smartphones

The study by Van Weelden et al. (2016, p. 745) established a consumer decision-making model for refurbished smartphones derived from the original model consumer decision-making model established by Engel et al. (1968). This model contains the following phases: (1) Need recognition (2) Orientation phase (3) Evaluation phase and the (4) Post-Purchase phase (Van Weelden, 2016, p. 745). In the study conducted by Van Weelden et al. (2016, p. 746) the respondents of the study claimed to be predominantly positive towards refurbished smartphones in the pre-purchase phase but the lack of awareness of refurbished smartphones and the misconception of the concept hindered many respondents from considering refurbished smartphones as an option.
Furthermore, the lack of awareness of refurbished products as a whole made it difficult for consumers to consider it at all which led to them being rejected already in the orientation phase (Van Weelden, 2016, p. 743). This could be because experienced consumers use their prior knowledge about the market to delimit their search (Johnson & Russo, 1984, p. 548). According to Lee and Shin (2010, p. 194) when lack of awareness among a company’s consumers is predominant and the activities from the company is not properly delivered to the consumers, managers have to seek ways to make their communication tools more effective than they currently are. Furthermore, persuasion tools are used to overcome lack of awareness or other forms of information barriers (Waterschoot & van den Bulte, 1992, p. 88). It is also vital to know about which characteristics have effect on communicated messages, therefore the characteristics influence both the process and the outcome of the persuasion tactics (Buda & Zhang, 2000, p. 234). Van Weelden et al. (2016, p. 747) mentions that consumers tend to maximise perceived risk rather than perceived benefit and the balance between risk and benefits are highly personal for the consumers but also contextual. Moreover, this could influence the amount and to what extent promotional activities is necessary to maintain or change a consumer’s attitudes towards a product (Haugtvedt et al., 1992, p. 256).

Furthermore, communicators who have more positive attributes in the eyes of the consumers are considered to be more persuasive than the communicators with negative attributes (Buda & Zhang, 2000, p. 234). Thus, the credibility increases and the consumer will less likely counter argue with the claims made and be easier to influence (Buda & Zhang, 2000, p. 234). A product’s attributes would mostly be based on the most recent positive information received about the product and message framing could work as a positive influencer, this could be because when faced with a lot of information consumers may only remember the most recent information and only fractions of it (Buda & Zhang, 2000, p. 238). Positive or negative message framing can be used depending on which preferences the communicator wants to change (Buda & Zhang, 2000, p. 230). Nevertheless, negative message framing may be used to make risky options seem more desirable (Smith & Petty, 1996, p. 257). When standing in front of a decision, a consumer either chooses or judges the product (Johnson & Russo, 1984, p. 549). In choice, a consumer chooses the best alternative from a variety of products while judging, a consumer only judges a single product at a time (Johnson & Russo, 1984, p. 549). In the study conducted by Van Weelden et al. (2016, p. 747) consumers claimed that financial motivations to purchase a refurbished smartphone were very dominant when considering a refurbished smartphone, and in combination with a specific brand it became an important motivation to purchase a refurbished smartphone. However, there is an eminent financial risk connected to refurbished smartphones and not to spend one’s money well, as a refurbished product is quite expensive to purchase (Van Weelden et al., 2016, p. 748).

If the consumer gets past the initial barriers they start to weigh the risks and benefits of the refurbished smartphones. Nevertheless, the levels of risk with refurbished smartphones outweighed the benefits of them in most cases (Van Weelden et al., 2016, p.
747). The risk of loss can be functional, economic or social and can be a combination of them too (Taylor, 1974, p. 54). To reduce the risk Van Weelden et al. (2016, p. 751) argue that companies ought to offer high quality service and warranty programmes to relieve the consumers from any performance related risks. There are three ways according to Van Weelden et al. (2016, p. 749) to categorise consumer’s perception of risk and benefits which are: personal, contextual and product-related factors. The personal factors are the consumer’s personal beliefs or experience those results in the expectations they might have on refurbished products (Van Weelden 2016, p. 749). The contextual factors focus more on the elements linked to the product as warranties and service which also are seen as vital in the risk-benefit balance for consumers when they consider refurbished smartphones (Van Weelden et al., 2016, p. 749). The product-related category focuses directly on the products physical capabilities as its performance and product appearance, this influences how the consumer views the quality and the value the refurbished smartphone provides the consumer (Van Weelden et al., 2016, p. 749). Moreover, consumers feel that the quality of the refurbished product is difficult to examine based on its exterior which causes fear about the product and that it may be damaged (Van Weelden et al., 2016, p. 750).

Figure 1. The consumer decision-making process showing the main factors influencing consumer acceptance of refurbished mobile phones (Van Weelden et al., 2016, p. 751)

3.5 The Information Processing Model
The information processing model is the most researched and developed model of the communication process which looks at the consumer’s general attitude and behavioural change (Flay et al., 1980, p. 129). It was first developed by Hovland et al. (1953) in the book Communication and Persuasion. The results showed that concerning persuasive communications there are three major parts; the communicator, the communication and
the audience (Hovland, 1953, p. 269). In a study by McGuire (1978 cited in Flay et al., 1980; Scholten, 1996) he extensively advocated for the model, and categorised five factors that affect the consumer's attitude:

1. Source factors - Who is communicating?
2. Message factors - How and what is being communicated?
3. Channel factors - What medium is being used and how is it being communicated?
4. Receiver factors - Who is the message targeted towards?
5. Destination factors - What is the wanted effect of the communication?

Mass media programs need to take each of the stages of the communication process into consideration (Flay et al., 1980, p. 130). Thus companies selling refurbished needs to consider each of these stages while developing their communication. These five stages represent the outcomes and thus, the information processing model further identified six hierarchically ordered stages of advertising; presentation, attention, comprehension, beliefs/attitudes, persistence of attitude change and finally behaviour (Flay et al., 1980, p. 130; Scholten, 1996, p. 101). Because of a need to stay psychologically consistent it is assumed that belief change leads to a behaviour change (Flay et al., 1980, p. 131).

Further, the information process model proposes three major postulates; firstly, the mediation postulate says that the effects take place in a specific probability given that the preceded effect of the hierarchy did indeed occur (Scholten, 1996, p. 101). Secondly, the compensation postulate a prior factor tends to have an opposite effect in different stages of the hierarchy (Scholten, 1996, p. 101). In the later stage of the hierarchy if the opposite occurs the dependent factor will have an inverted U-shaped connection with the effectiveness of advertising (Scholten, 1996, p. 101). Lastly, we have the situational-weighing postulate, which says that the situation where the factor occur generally explains if the stages are affected by the previously stage (Scholten, 1996, p. 101).

Scholten (1996) made a further revision to McGuire's work so it could qualify as a general framework for advertising research (Scholten, 1996, p. 101). Firstly he replaced presentation with exposure since it does not include the sender's activity but rather the activity of being exposed to the message (Scholten, 1996, p. 101). Secondly, reception was added instead of attention and comprehension which better captures the processes from physical contact with an ad and the consumer's subconscious perception of to add to the full amplification of the arguments presented in the ad (Scholten, 1996, p. 101). Thirdly the compensation postulate was removed since it restricts the validity by having compensation as a principle to which dependent factors in most cases do work in opposite directions in the different stages (Scholten, 1996, p. 101). Fourthly, the postulate of situational-weighing is reformulated and thus refer to situational weakening of effects by the dependent factors, this is disregarding of the effects were brought about in the same or different stage hierarchy (Scholten, 1996, p. 101). Lastly, destination factors are taken away from the dependent side of the model and instead target effect is ordered and specified in five hierarchically on the effect side (Scholten, 1996, p. 101).
3.5.1 Message Factors

Messages are sent out every day in many forms by companies (Duncan & Moriarty, 1998). Therefore, it is important to have a framework that involves message factors in order to structure the communication activities. The model of Message Typology explains types of messages that is communicated and every message that the customers and other stakeholders receive from and about a brand is called brand messages (Duncan, 2002, p. 128). These messages originate from corporate, marketing and marketing communication, thus all the activities the corporate and marketing activities have a communication dimension (Duncan & Moriarty, 1998, p. 6). The messages that are sent by the corporate level are sent by the company's philosophy and their business practices (Duncan & Moriarty, 1998, p. 6). Messages that are sent by the marketing level needs to be managed because of consistency (Duncan & Moriarty, 1998, p. 6). There are four types of brand messages which are determined by the source of the message (Duncan, 2002, p. 129).

The first is planned messages which is the marketing communication messages from the sales promotion, personal sales, advertising, merchandising materials, events, press releases, packaging, sponsorships and annual reports (Duncan, 2002, p. 129; Moriarty, 1994, p. 39). Planned messages are used in order to promote the brand or company to influence brand knowledge, brand awareness and brand positioning (Duncan, 2002, p. 129). Most of the communication from an organization are planned messages (Moriarty, 1994, p. 39). In our case, companies selling refurbished smartphones are focusing mainly on the performance through specification and environmental aspects in their planned communication.

The second are product messages which include the product's design, pricing, distribution and performance and the messages that they are communicating (Duncan & Moriarty, 1998, p. 6). The product design is important since it can send a powerful message however, product performance is even more important in sending brand messages (Duncan, 2002, p. 131). Pricing and distribution also sends a powerful message, depending on the price and which stores carries a product it tells the consumer something about the brand (Duncan, 2002, p. 132). Refurbishment companies have a special situation with product messages. They can affect the performance, pricing and distribution but they are still selling another company's computer and thus their brand and can therefore not communicate as well as other companies through the product design.

The third type of messages is service messages and it comes from contact with the contact of representatives from the company (Duncan & Moriarty, 1998, p. 7). This is often from a physical meeting between the company and the customer and is therefore particularly strong (Duncan, 2002, p. 133). These companies operate online therefore it is few physical meetings between the company and the consumer.
The last type is unplanned messages which contains rumours, gossip, news stories, action of interest groups, and comments by competitors, findings by governments’ agencies or research institutions and word of mouth (Duncan, 2002, p. 135; Moriarty 1994, p. 7). These messages are hard to control and unplanned messages can be both negative and positive, however, being strategically consistent and honest is a good strategy for dealing with unplanned messages (Duncan, 2002, p. 133; Winter & Sundqvist, 2009, p. 203). Unplanned messages often comes from employees, news media or disasters and crises (Duncan, 2002, p. 136). Unplanned messages for the affect the companies selling refurbished smartphones and one major unplanned message is how different companies have different naming of refurbished products.

This typology brings a more logical structure for developing communication strategies for corporations (Moriarty, 1994, p. 39). One of the problems with marketing within an organisation is that different areas of the communication are controlled by different departments (Moriarty, 1994, p. 39). The model of message typology a structural way for a corporation to control their communication (Moriarty, 1994, p. 39). Most corporations access the planned messages rather well, however, often nobody has the responsibility to influencing or controlling the other messages which is just as important as the planned messages (Moriarty, 1994, p. 39).

The framework of rational and emotional appeals has been studied widely in advertising and marketing literature (Albers-Miller & Stafford, 1999, p. 43). From the traditional information processing models of decision-making rational advertising has been derived, here the consumer is believed to be rational and thus make logical and rational decisions (Albers-Miller & Stafford, 1999, p. 44). Rational advertising appeals focuses on the brands attributes and want to change the consumer’s mind through persuasive arguments and information about those attributes (Albers-Miller & Stafford, 1999, p. 44). The focus often lies on objective factors like features, quality or the price or more functional needs such as security and convenience (Leonidou & Leonidou, 2009, p. 543). The message here tries to be persuasive by focusing on the information from facts, scientific evidence or technical expertise and often refer to the price and the products characteristics (Leonidou & Leonidou, 2009, p. 543).

The emotional appeals are based in the consumer’s emotional and experiential side, these appeals can be distinguished by their either positive or negative emotional attraction (Albers-Miller & Stafford, 1999, p. 43; Taute et al., 2011, p. 31). Positive emotional appeals can focus on for example warmth, love or friendship while examples of negative emotional appeals are shame, guilt or fear (Taute et al., 2011, p. 31). Emotional appeals puts less focus on the facts and more tries to focus on aspects that challenge, provokes makes them curious and is often vague (Leonidou & Leonidou, 2009, p. 543) There is more focus on the intangible aspects of the offering of the company in the emotional than in the rational (Leonidou & Leonidou, 2009, p. 543).
Rational appeals seem to work better for goods compared to services, however, emotional appeals should also be used for goods but not in the same extent as in for services (Albers-Miller & Stafford, 1999, p. 53) Understanding emotional and rational appeals is of great importance since it is vital for companies are communicating to their customers in an efficient manner and thus the way that the advertisement is executed is essential to be as efficient as possible (Leonidou & Leonidou, 2009, p. 523).

3.5.2 Channel Factors

When the message factors have been clarified the companies need to decide which channels to use. Companies are beginning to realize the Internet’s value as a vital component in their communications, at the same time companies are starting to leverage the traditional communication channels with more cost-effective practices (Castronovo & Huang, 2012, p. 117). Alternative marketing channels as guerrilla marketing or social media can be a big advantage for smaller and medium sized businesses in the consumer product markets as they often lack the resources to use traditional marketing tools (Castronovo & Huang, 2012, p. 117). Additionally, a consumer’s purchase decision is affected by the consumer’s peer’s opinions since their opinions are viewed as valid and reliable sources of information (Castronovo & Huang, 2012, p. 118). Moreover, consumers are likely to talk about their purchase if they are satisfied or unsatisfied with it and it has been proved that it is more effective than traditional marketing channels (Castronovo & Huang, 2012, p. 118). Social networking is becoming more effective with the Word-of-Mouth promotions than traditional marketing channels due to better customer engagement (Castronovo & Huang, 2012, p. 118). According to Castronovo and Huang (2012, p. 128) the future in marketing lies with creating one-to-one relationships to sell products and build brand loyalty instead of interrupted marketing displayed by the traditional marketing channels. Today information is shared openly and horizontally between members of digital social networks, this shift from more vertical information sharing means that the information power has moved further away from companies towards the hands of the consumer (Ashman et al., 2015, p. 128).

In the study by Perse and Courtright (1993, p. 485) they claim that consumers communicate to satisfy their own goals, thus, communicators try to select channels that will give the consumers what they seek, as the communicators are aware about that the consumers also are aware about the alternatives that will fill their needs. Normative images is the shared perceptions about a channel’s typical usage, the normative images can be better at satisfying consumer’s communication needs (Perse & Courtright, 1993, p. 488). Perse and Courtright (1993, p. 488) found that different channels works for different purposes, for example newspapers, television and radio worked best for political needs and movies and books was more useful for satisfying personal needs. The normative images determine to a great extent which communication channel a consumer chooses to possess and the consumers are aware of the alternative channels to gain satisfaction from, the consumer chooses these in many cases based on social presence from other consumers in forms of conversation or over the telephone (Perse & Courtright, 1993, p. 501)
3.5.3 Receiver Factors
After deciding which channels to use the companies needs to decide who the communication should be targeted towards (Flay et al., 1980; Scholten, 1996). According to Reijonen and Laukkanen (2010, p. 118) customer segmentation is the cornerstone of marketing and it is a process where the consumers are divided into homogeneous groups. Today, segmentation is most often based on behavioural and transactional data from a variety of information sources (Reijonen & Laukkanen, 2010, p. 118). Moreover, Reijonen and Laukkanen (2010, p. 118) says that segmentation is not a goal in itself but a tool companies can use in their marketing activities to differentiate themselves towards the segments. Market segmentation can be used by smaller companies to enter a particular niche market to avoid market leaders concern (Dibb & Simkin, 1991, p. 6). After the segmentation is completed, marketers have to decide what segment they want to enter (Dibb & Simkin, 1991, p. 7). Furthermore, segments are used to develop an advantage over competitors, thus making considerations carefully for customer groups (Dibb & Simkin, 1991, p. 10).

The consumer decision-making process and the information process model is the core of this theoretical framework. Previous findings have shown barriers that exist for the market of refurbished smartphones (Van Weelden et al., 2016). This theoretical framework builds upon how to communicate to overcome these barriers. By doing this it is important for the one communicating to understand the message factors, channel factors and the receiver factors in order to reach the destination factors and reach the wanted effect on communication (Flay et al., 1980; Scholten, 1996). The theoretical framework is thus built to support the source, the companies selling refurbished smartphones to achieve the wanted effect which is to sell refurbished smartphones.
4. Practical Method

In this chapter we will discuss how we structured our interviews and why we structured them as we did to give a picture of how we conducted our study. Further we will present who our respondents were and how we decided to collect our sample. At last this chapter will bring up how we structured the interview guide to fit our purpose of the study and answer the research question.

4.1 Sampling Technique and Access

When conducting a study it is unlikely that one would collect data from all the people who are connected to the researched topic (Daymon & Holloway, 2011, p. 209). Therefore, the researcher collects a sample of the population with the expectation that they can give relevant and adequate information to offer new insight to the topic (Daymon & Holloway, 2011, p. 209).

Sampling in qualitative research is purposeful and the sample is chosen strategically based on the purpose of the research (Daymon & Holloway, 2011, p. 209). This is different from quantitative studies where the sampling is often probabilistic or random (Daymon & Holloway, 2011, p. 209). According to Saunders et al. (2012, p. 262) probability sampling is most often associated with survey research strategies due to the researcher needs to draw conclusions about the population using the sample. Moreover, probability sampling often assumes that the researcher has a sample frame to draw the sample from (Saunders et al., 2012, p. 281). To draw conclusions about a population from a sample is not the purpose of this study, therefore probability sampling will not be used.

In business projects the research question may dictate non-probability sampling (Saunders et al., 2012, p. 282). Furthermore, Saunders et al. (2012, pp. 282-283) stated that to answer the research question the researcher may need to begin with an in-depth study and a smaller number of cases for a particular purpose. Thus, the sample size is dependent on the research question and objectives of the study (Saunders et al., 2012, p. 283). The researcher needs to take what will be useful and what will have credibility into consideration for example, especially if semi-structured interviews will be conducted (Saunders et al., 2012, p. 283). In the selection of our interviewees we will therefore use a non-probability sampling since it is appropriate in answering our research question. Saunders et al. (2012, p. 287) says that in purposive sampling the researcher uses his hers judgement to select interviewees to answer the research question. Purposive sampling cannot be used to make conclusions about an entire population and is often used with very small samples (Saunders et al., 2012, p. 287). How the researcher selects the interviewees will be dependent on the topical research question (Saunders et al., 2012, p. 287). We have chosen to use purposive sampling in order to get access to the information we need for our study and to answer the research question.

In non-probability sampling the question of sample size is uncertain and ambiguous (Saunders, 2012, p. 283). The purpose and objective of the study should be connected to
the sample size (Saunders, 2012, p. 283). According to many researchers, data should be collected until the data saturation is reached and this occurs when the additional data provide the researcher with no or few additional insights (Saunders, 2012, p. 283). In our thesis we held nine interviews with private consumers and three interviews with companies. After these interviews were held we had access to more interviewees if needed, however, we felt that the data had been saturated and no new additional insights were seen.

The interviewees we intend to collect our answers from are consumers in the Swedish market who own a smartphone. In addition companies within the refurbishment business in the Swedish market who sells refurbished smartphones and or refurbished computers and their marketing managers will be interviewed. We identified four companies within this criteria and interviewed three as the fourth company did not have a marketing manager. The respondents will be purposely chosen to answer our research question. The individuals and companies will be selected through using our own judgement in assessing which respondents can enable us to answer our research question. In our study we want to get a broad picture on this context and thus choose to purposely interview people with certain characteristics. As mentioned before by Mugge et al. (2017, p. 293) there are different groups that had different awareness and intention to purchase refurbished smartphones. Hence, we will interview some people are sustainability enthusiasts and technology experts as well as some who have purchased second hand smartphones, refurbished smartphones and refurbished computers. These were chosen since we believe that the information that they will contribute to our study. The refurbished computer buyers were added due to the similarity of the product in order to help explain the phenomenon of consumer purchasing refurbished smartphones. The refurbished buyers who we found and contacted to participate in this study were mainly men and a reason for this could be that more men engage in this phenomenon than women. Further, to complement the consumers we also interview three companies who sells refurbished smartphones and computers to get their views about the consumers and their behaviour as well as to get an understanding about the marketing within these companies.

Purposive sampling and probability sampling differs from each other, the researcher has to provide a clear description of how to use otherwise it will most often lead to criticism about the qualitative study the purposive sampling due to inadequate sampling designs (Devers & Frankel, 2000, 265). Theoretical sampling is a process for data collection in order to generate a new theory; the researcher collects the data, at the same time analyses and codes the data (Coyne, 1997, p. 625). According to Coyne (1997, p. 625) the sampling is chosen when it is needed and not prior to the study begins. Furthermore, the sample is not drawn based on certain variables before the study, but rather on variables emerging during the study, because the data collection is controlled by the emerging theory (Coyne, 1997, p. 625). The authors Daymon & Holloway (2011, p. 214) mentions a few sampling techniques and among them homogeneous sampling and heterogeneous sampling. Homogeneous sampling consists of people who are part of the same sub-group and have the same or similar characteristics such as specialists in a field or a particular occupation.
This sampling technique is preferable if the researcher wants to observe a particular group in greater depth (Daymon & Holloway, 2011, p. 214; Saunders et al., 2012, p. 288). Heterogeneous sampling, however, contains different groups who are so diverse that they cause as much variety as possible in the data set (Daymon & Holloway, 2011, p. 214; Saunders et al., 2012, p. 287). Heterogeneous sampling aims to find and describe central themes that occurred and can be observed (Patton, 1987, p. 53; Saunders et al., 2012, p. 287). Heterogeneity could because of the differences between the individual be a problem for small samples. However, this weakness is turned into a strength in heterogeneous sampling by saying that the central themes that occur are of particular interest (Patton, 1987, p. 53). Heterogeneous sampling fits this study’s purpose since we want to get a broad picture of the problem by looking at it from different angles would help us achieve this. Previous studies have identified groups of consumers and how they differ in regard to their acceptance and purchase intention of refurbished smartphones. Heterogeneous sampling fits this study since by using these pre-existing groups in choosing our sample we can create a variety in our data and through the data derive central themes.

4.2 Interview Guide

Before conducting the actual interview it is important conduct pilot interviews to see how the interview works and to get experience in interviewing (Bryman, 2012, p. 422). Therefore before our interviews we conducted an interview to test our questions and after this some questions were altered. Interviews can be both structured with standardised questions for every respondent, but they can also be unstructured and informal in nature (Saunders et al., 2012, p. 374). In between there are different forms of structures depending which transitional positions there are (Saunders et al., 2012, p. 374).

Structured interviews use an identical set of questions that are predetermined (Saunders et al., 2012, p. 374). The researcher reads out the question to the respondent, records the answer in a standardised manner, most of the time with pre-coded answers (Saunders et al., 2012, p. 374). Structured interviews are similar to questionnaires and are not often used in qualitative studies (Daymon & Holloway, 2011, pp. 224-226). Furthermore, structured interviews are used to collect quantifiable data (Saunders et al., 2012, p. 374). Therefore, this means that structured interviews will not suit the purpose of this study and will therefore not use be used to collect answers from our respondents.

Unstructured interviews is an informal type of interview where the interviewer would use themes of a general area the researcher wants to learn more about and go through it during the interview (Bryman, 2008, p. 415; Saunders et al., 2012, p. 378). It could happen that the interviewer only asks one question where interviewee can respond freely and the interviewer reacts on the points that are worth on following up (Bryman, 2008, p. 415). Thus, there is a not predetermined list of questions to go through but the researcher instead has an idea about which aspects they want to cover in the interview (Saunders et al., 2012, p. 378).
In a semi-structured interview the researcher has a list of special themes or questions that they want to go through (Bryman, 2008, p. 415). These does not have to come in a specific order and gives the researcher flexibility since the one interviewing can ask the questions in any order and the interviewer can also ask questions that are not part of the interview guide depending on what the respondent answer (Bryman, 2008, p. 415). The interviewees can use words in certain ways which may add importance and depth to the interview by examining the meaning in the wordings used by the interviewee (Saunders et al., 2012, p. 378).

In exploratory studies unstructured or semi-structured interviews may be used (Saunders et al., 2012, p. 377). If a researcher starts their study with a quite clear focus rather than a general idea of what to study, it is likely that a semi-structured interview would be chosen (Bryman, 2008, p. 416). Since we have a quite clear focus and not only a general idea of what to study semi-structured interviews were chosen since this is the type that could help us answer our research question best. According to Barriball & While (1994, p. 334) semi-structured interviews conducted face to face can raise interest in the project thus improving the validity of the results. However, it has been seen that the differences between face-to-face interviews and telephone interviews are small (Saunders, 2012, p. 432). Therefore, in our study we have combined face-to-face interviews and telephone interviews in order to access the respondents who could contribute the most to our study.

We developed two interview guides one for the private respondents and one for the companies and they were slightly altered depending on the respondent. The interview guide was constructed through identifying several themes and for each theme constructing relevant questions. The themes were risk, benefits, barriers and communication that we identified from previous research. The interview started with an introduction about the purpose of the study, the procedure and the confidentiality of the data. The interview guide started with some background questions by asking about how their last smartphone purchasing process looked like and what their general demands of a smartphone purchase was. This was done to trigger their prior experiences to help their underlying motivations to come up in the interview. If the interviewee was not familiar with refurbished smartphones, the concept was explained. The last questions of the first part are about the risks, benefits and barriers. The first part of the interview guide for the private respondents will be to investigate what the consumer acceptance of refurbished smartphones is in the Swedish market. The second part was in order to understand the communication in regard to refurbished smartphones. The questions were designed in order to get an understanding where the consumers get their information and what the focus of the marketing for refurbished smartphones should be.

The interview guide for the companies was designed in a similar manner by going through the positive and negative aspects of refurbished products and asking about what barriers that exist for getting private consumers to purchase from them. Further, the interview focused more on the communication about subjects such as, which segments they focus
on, which channels they use and what messages that they are using. The questions were written in an open ended way to ensure that we do not lead the questions in a particular direction, it is important in order to be a neutral interviewer (Bryman, 2008, p. 419). We made sure there were a logical order and a language that is comprehensible in our interview guide (Bryman, 2008, p. 419). We always brought an extra copy if the respondents wanted to see the questions. The interview guide can be found in Appendix 1.

4.3 Conducting the Interviews

The first minutes of an interview are very important for the outcome of the interview (Saunders et al., 2012, p. 389). It is important to explain the topic, purpose, research question and shape the conversation (Saunders et al., 2012, p. 389). Therefore, we made sure to clearly introduce these parts to our respondents before the interview started. It is important to create trust and confidence so that the interviewer is seen as credible (Saunders et al., 2012, p. 389). Thus, we assured that the respondents were comfortable and explained the nature of our thesis. Saunders et al. (2012, p. 398) said that it can be very time-consuming with interviewing, however, we still made sure that both interviewers were present at all the face-to-face interviews. This was done so we could make sure that both the interviewers had the same view on what had been said. For the face-to-face interviews we divided the questions between us and held those constant over all interviews but both could intervene and ask probing questions. We held half of the telephone interviews each and the other author was present while the interview was held.

According to Bryman (2008, pp. 422-423) different kind of questions can be used, and depending on the answers from the respondents probing questions can be utilized, therefore we prepared ourselves with potential probing questions. According to Barriball & While (1994, p. 331) the interviewers are given the choice of wording the questions and also the use of probes in semi-structured interviews. Probes allow the interviewers to, for example clarify interesting and relevant issues, provide opportunities to explore delicate issues and help the respondents to remember certain information involving the memory (Barriball & While, 1994, p. 331). Furthermore, the time for the interview can vary when conducting qualitative interviews and interviews over phone are often shorter than face-to-face interviews (Bryman, 2008, p. 433). This was also seen in our study with our telephone interviews ranging from 15 minutes to 51 minutes while or face-to-face interviews ranged from 21 to 47 minutes and the average was longer in face-to-face.

According to Saunders et al. (2012, p. 231) assuring anonymity reduces response biases and also increases the trustworthiness. Therefore, assuring anonymity was done by stating that their privacy will be maintained and that their names would not appear in the study.

The interviews should be held at a place where the respondent feel comfortable and where the interview will not be disturbed (Saunders et al., 2012, p. 386) Therefore, all the face-to-face interviews were held in a booked group room at Umeå University’s library and for the telephone interviews both interviewers were also held in a booked group room. In
Table 2 below the time of the interview, age, gender and a short description of the interviewees is given.

<table>
<thead>
<tr>
<th>Interviewees</th>
<th>Description</th>
<th>Interview type</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>R 1</td>
<td>Technology knowledgeable physical education student, 22 year old, Male</td>
<td>Face-to-face</td>
<td>40 minutes</td>
</tr>
<tr>
<td>R 2</td>
<td>Technology knowledgeable and customer service in telecom, 24 year old, Male</td>
<td>Face-to-face</td>
<td>47 minutes</td>
</tr>
<tr>
<td>R 3</td>
<td>CEO for a company within the circular economy, sustainability enthusiast and</td>
<td>Telephone interview</td>
<td>38 minutes</td>
</tr>
<tr>
<td></td>
<td>purchased a refurbished computer for his son, 40 year old, Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R 4</td>
<td>Sustainability enthusiast and environmental consultant, 30 year old, Male</td>
<td>Face-to-face</td>
<td>37 minutes</td>
</tr>
<tr>
<td>R 5</td>
<td>Second hand buyer and product developer in the food industry, 35 year old, Female</td>
<td>Telephone interview</td>
<td>31 minutes</td>
</tr>
<tr>
<td>R 6</td>
<td>Second hand buyer and an entrepreneur, 33 year old, Female</td>
<td>Telephone interview</td>
<td>26 minutes</td>
</tr>
<tr>
<td>R 7</td>
<td>Refurbished computer buyer and business student, 28 year old, Male</td>
<td>Face-to-face</td>
<td>40 minutes</td>
</tr>
<tr>
<td>R 8</td>
<td>Refurbished computer buyer, production planner for an insurance company and</td>
<td>Telephone interview</td>
<td>34 minutes</td>
</tr>
<tr>
<td></td>
<td>selling second-hand computers on his spare time, 48 year old, Male</td>
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<td></td>
</tr>
<tr>
<td>R 9</td>
<td>Refurbished smartphone buyer and between jobs, 28 year old, Male</td>
<td>Face-to-face</td>
<td>21 minutes</td>
</tr>
<tr>
<td>C 1</td>
<td>Marketing manager for a company who sells refurbished smartphones and</td>
<td>Telephone interview</td>
<td>26 minutes</td>
</tr>
<tr>
<td></td>
<td>computers. Their consumers are mainly private consumers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C 2</td>
<td>Marketing manager for a company who sells refurbished smartphones and</td>
<td>Telephone interview</td>
<td>51 minutes</td>
</tr>
<tr>
<td></td>
<td>computers. Their main consumers are mainly business to business.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C 3</td>
<td>Marketing manager for a company who sells refurbished computers. Their main</td>
<td>Telephone interview</td>
<td>15 minutes</td>
</tr>
<tr>
<td></td>
<td>consumers are mixed between private consumers and companies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Table of interviewees

4.4 Thematic Analysis
One of the most common practices of analysing the data when conducting a qualitative study is thematic analysis (Bryman, 2008, p. 528). A thematic analysis starts with the researcher setting up a framework of themes and sub-themes that are returning in the data material (Bryman, 2008, p. 328). Even if there is no specific guidelines for how to conduct a thematic analysis it can provide a hint on where the researcher may start to organise and set up an analysis (Bryman, 2008, p. 530). This is why we chose the thematic analysis to analyse the data material in our study. In this research we used Braun & Clarke’s (2006) approach when we conducted the thematic analysis.

The first part of conducting a thematic analysis involved repeatedly reading of the data and tries to find patterns, meanings etcetera (Braun & Clarke, 2006, p. 87). To conduct a thematic analysis, it is required to transcribe the data before to a written form (Braun &
Moreover, the time spent on transcribing is not wasted but it informs about early stages in the analysis and the researcher develops a better understanding about the data, to familiarise oneself with the entire data set is vital (Braun & Clarke, 2006, p. 88).

The next stage is about familiarising with the data and to generate a list of initial ideas about what the data contains and what is interesting about it (Braun & Clarke, 2006, p. 88). The next step in this phase is to generate codes of the data which are features that appear interesting to the researcher (Braun & Clarke, 2006, p. 88). The coding can be conducted either manually or in a software programme and we decided to do it manually by using highlighting pens and making notes (Braun & Clarke, 2006, p. 89).

Stage three is concerning the search for themes in the data set from the initial coding by analysing the codes and linking them to find overall themes (Braun & Clarke, 2006, p. 89). Main themes can be set up by the initial codes and sub-themes will be formed by the remaining codes (Braun & Clarke, 2006, p. 90). The keywords found from our coding were written down summarized in a document and initial themes emerged.

Stage four is about revising the themes that was sorted out in stage three in order to decide if they are actual themes or not (Braun & Clarke, 2006, p. 91). There are two ways of revising the themes, the first one is to review the data at a level of coded data extract to see if they follow the same pattern, if they do, the researcher moves on to the next theme (Braun & Clarke, 2006, p. 91). The second way involves the entire data set but is very similar to the first way, and here an individual theme is considered to check if the theme reflects the whole data set (Braun & Clarke, 2006, p. 91). Through analysing the initial themes we identified themes and sub-themes.

At stage five the themes that will be presented in the analysis are defined and refined (Braun & Clarke, 2006, p. 92). At this stage, information about what every theme says about the data is searched for, and it is important that the interest in the themes is identified about why the theme is used (Braun & Clarke, 2006, p. 92). By the end of this phase it is important to define what the themes are and what they are not (Braun & Clarke, 2006, p. 93). The themes should be named and the names need to be concise and punchy to give the reader a way of understanding what they are about (Braun & Clarke, 2006, p. 93). At this stage we looked at what the themes said about the data and named the themes.

In the sixth and last phase there are a completed set of themes and this phase involves a last analysis and the beginning of writing the report (Braun & Clarke, 2006, p. 93). This part is to convince the reader about the validity and merit of the analysis (Braun & Clarke, 2006, p. 93). Extracts of the data needs to do more than just provide data, it needs to be analytically embedded to illustrate the story and what is says about the data to make an argument about the established research question (Braun & Clarke, 2006, p. 93). In this phase, the themes were completed and made sure to be analytically embedded.
4.5 Ethical Considerations

Ethical issues are often of importance when conducting research and it is important to raise these aspects to enhance the quality of the study as well as avoiding unethical conducts (Bryman, 2008, p. 127). The most important topics regarding ethics in research will be presented in relation to our study. According to Bryman (2008, p. 139) the quality of the research could be improved by considering ethical issues and this is something a researcher should pursue. Therefore, in this research we wanted to make sure that the ethical considerations are outlined in a clear manner.

The participants should be informed about the purpose of the research and that their participation is voluntary (Bryman, 2008, p. 131). Further, it is important that the participants can withdraw from the interview or from answering a question at any time (Bryman, 2008, p. 131). In addition, the personal information gathered from the participants is only to be used for the research purposes and to obtain information through deception or manipulation of the participants are not attempted in any form (Bryman, 2008, pp. 132-138). Therefore, respondents were informed about the purpose of the study, the usage of the gathered information, that no manipulation or deception would be used and about their voluntary participation.

It is the responsibility of the researchers to evaluate the risk of harm to the respondents and the researchers should minimize this risk (Bryman, 2008, p. 132). Harm could be physical, obstacle of personal development, worse self-esteem and stress for example (Bryman, 2008, p. 132). We have aimed to not cause any harm to our respondents to the largest extent as possible and this was done through trying to create a pleasant and positive environment during the interviews. According to Bryman (2008, p. 132) the issue of confidentiality and anonymity is also connected to harm and the respondents should not be able to identified when the results are published. Therefore, this was clearly stated to the respondents and has been thought about when producing the thesis. Under the interviews, if the respondents were not familiar with the concepts they were explained to them; however, if they understood the concepts it was avoided. The interviewees were thanked for their participation both after the interviews as well as by email or Facebook depending on where the communication had taken place later.

Further, Saunders et al. (2012, p. 237) stated that when asking respondents to participate they should not be pressured to be part of the study and their privacy should be respected. The researcher should not avoid informing the participants about matters that may change their willingness to participate (Bryman, 2008, p. 135). This was thought about when asking the respondents to participate in our study, and it was made sure that their participation were completely voluntary and that no information were left out. Furthermore, Bryman (2008, p. 137) stated that the privacy and confidentiality of the recordings of the interviews are important and the researcher should gain their permission.
Before every interview started we made sure that the interviewees gave their permission to record and that they could receive our results if they wanted.
5. Empirical Findings

This chapter will outline the empirical findings of this study, following the interview guide step by step in a logical order. All the relevant quotations are presented to give the reader a detailed overlook of the findings. Further, the thesis findings provide a basis for the thematic analysis which the qualitative study is based on.

5.1 Initial Response

The respondents were asked about what their initial response were to refurbished products and there were two clear responses. Either a positive interest or doubts were shown or both combined as their initial response. The first respondent who is a technology expert said that, “If it is the case that I can purchase a smartphone which battery I can switch to a new battery for a good price it is definitely something I would like to invest in” (R1). The same respondent also expressed some doubts about the smartphone’s capabilities and said, “The phone does not have the same or as good capabilities as the best so I would say... that the refurbished smartphone would not come up to the same level because they are not in the same market perhaps” (R1). Another respondent who also is technology expert expressed concerns about the refurbishment companies and said, “I would look into this more thoroughly to see who have refurbished the smartphone” (R2). However, the respondent also expressed excitement about refurbishment as a concept, “Spontaneous it sounds great because everything that can be fixed without the usage of plenty of resources is great I believe” (R2).

A respondent who purchased a refurbished computer stated that, “This is good... additionally the companies have warranties on their products so it feels safe and well” (R8). A second refurbished computer buyer states that, “As I do not need the latest MacBook pro with touchbar capabilities and emojis on the keyboard I would rather buy a one or two year old computer” (R7). Another respondent who purchased a second-hand smartphone showed positive interest in refurbished smartphones and said, “This is something I would easily buy” (R5). Doubts about obsolescence were raised and one respondent who is a sustainability enthusiast stated that, “I see some difficulties with this, as I said earlier about smartphones and obsolescence it is not only about the smartphone’s obsolescence in itself but rather processor-power and internal memory and how the smartphone manages new applications and it might not grow as fast and if I was about to purchase a refurbished smartphone I can imagine that these limitations still exists” (R4).

5.2 Barriers

There were four barriers that have been identified by previous research that the respondents were asked about to understand the importance of the barriers in general. It was seen that refurbished smartphone often get rejected early in the consumer’s decision-making process due to these barriers.
5.2.1 Lack of Awareness

The first barrier was lack of awareness and all of the respondents thought that this was a barrier and one example was, “I have never heard that you can purchase phones this way... you have no real awareness that it exists” (R1). In addition, one respondent who purchased a second-hand smartphone added, “I think that the awareness could be the largest factor, you do not think about that you can purchase refurbished” (R6). One consumer who purchased and searched for second-hand products consistently did not know that refurbished smartphones existed before the interview, “There is incredibly much on the second-hand market for smartphones but I had no idea about this until you told me and I am a second-hand chaser” (R5). The respondent continued, “If this would be commonly known I believe people gladly would have bought it” (R5). Trust was a factor that was mentioned by a respondent who bought a refurbished computer, “ArrowDirect needs to gain the trust of the consumer somehow as the consumer will pay a significant price for a product... the consumer does not entirely know what they should expect as they have never tried this before and does not know anybody who have either” (R7). This is supported by a technology expert, “One has to be able to trust the company one purchases from... if it would have been the original manufacturing company who refurbished and then sold their phones I would have trusted them more than smaller refurbishment companies” (R1). A sustainability enthusiast went further than saying that there was a lack awareness about refurbished smartphones, “There is a lack of awareness of what a smartphone is and we are completely disconnected from the production and do not see what lies behind like the mining, labour law and environmental issues” (R4).

None of the marketing managers identified this as a barrier but they rather went into more precise barriers that occur when the consumer has gained awareness about the concept. The interviewees that purchased refurbished previously mentioned the lack of visibility and how one needs to actively search and that it is nothing that you come across. However, a respondent who purchased refurbished smartphone said, “Now when it is beginning to appearing a bit more and Company 1 among others are seen on Facebook I think it is going to increase ” (R9).

5.2.2 Lack of Availability

Further, we looked into lack of availability and if the consumer saw this as a barrier. When it came to lack of availability the majority focused on the lack of awareness and thus that they did not know about any potential availability. One technology expert said, “I have no idea if there is any availability... or if the availability is too small so they cannot market themselves” (R1). A second-hand buyer added, “I do not know about the offering and you need to be able to communicate something to sell it.” Another second-hand buyer said that, “I do not think it is the availability, but rather how you reach out to new consumers who do not know about it” (6). A sustainability enthusiast added that even though it could be barrier was not as big as the lack of awareness, “I believe it may be a barrier but maybe not if you compare it with the first which is a larger barrier... many are not aware that this alternative even exist so I think you should get it out in stores and
in the media” (R4). However, the other respondents did not agree with the need of having the product in the store since everyone else mainly purchased online. Respondent (5) said, “When I purchase new phones I buy them online but when I purchase second-hand I buy I preferably want to meet them.” One interviewee who purchased a refurbished computer said, “I purchase everything online” (R8). Respondent (2) who is a technology expert supported this saying, “I usually purchase online, I do not have any large need of physically looking at the product” The only respondent who preferred buying in a store added that, “I want to purchase in a store to support the local economy” (R4).

Those who had purchased refurbished before did not see lack of availability as a barrier. The sustainability enthusiast CEO who purchased refurbished computer for his son said that, “There is probably not a lack of availability but rather a lack of visibility” (R3). This was supported by another refurbished buyer who said that, “I think the availability is good if you look at the firms that sell refurbished equipment” (8). While respondent (7) who bought a refurbished computer means that it is, “I would say so you need to look around a bit to find it. It is not something that you stumble across.” However, a marketing manager mentioned that, “Our biggest challenge is not to sell but rather to buy” (C2). The marketing manager from company (1) confirmed this by saying, “The target group we want to reach is those selling their computer to us so the products not just lies in their drawer because everything we receive we sell it in 3 days, it is not a problem selling refurbished products.”

5.2.3 Lack of Thrill of Newness
The third barrier the interviewees were asked about was the thrill of newness and this barrier was generally seen as large for the consumers. Respondent (5) who purchased a second-hand phone said, “People wants to have new smartphones models and that is of course a barrier towards refurbishment… most people like that, I guess I like it as well but I prefer the feeling of not having to be careful about it.” A technology expert said, “I think there is some kind fetish in owning something for the first time” (R2). A technology expert followed up and said, “It is a good feeling I cannot lie, and it is a good feeling in unpacking and the smell that arrives.” The same respondent continued by saying, “It absolutely lies subconsciously somewhere that it makes you feel good” (1). A refurbished computer buyer added, “I think it is extremely boring to pay for such things... but it is difficult to get away from the pleasure of newness” (7)

Some respondents mentioned how preconceptions about second-hand products contribute to this barrier. Respondent (4) who purchased a second-hand smartphone mentioned, “Partly because we have preconceptions about that new should last longer... you expect that the new smartphone should work more hassle-free than an old”. The CEO and sustainability enthusiast also talked about the preconceptions, “I believe it is the preconceptions that prevents... when we bought from Company 2 it felt fresh and professionally packaged, it is more about the packaging” (R3). Respondent (8) bought a refurbished computer and mentioned that, “If you do not have a full overview of the industry or specifications, people assume that new products work better.” Further another
refurbished computer buyer added that, “I got a new computer home so to me personally there were not any difference in the joyfulness from my previous computer which came completely new and my current refurbished” (R7).

The marketing manager for company (1) said, “It depends if you want to be up to date… if you want a specific product since we are not Dustin with 10 000 products in stock… you may need to wait a while to get the product you are after.” The marketing manager for company 3 said that, a “barrier is that many feels that they want to purchase new.” Another marketing manager followed, “A large barrier is the second-hand feeling” (C2). The same marketing manager continues and says, “You actually do not notice any difference between a three year old refurbished computer and a new, you notice nothing at all, but we can tell ourselves that there is a big difference.” The marketing manager for company (2) continued, “In the long term, our goal is to make refurbished products being perceived as hip.” Respondent (5) added on a similar topic that “you could make it something cool like with second-hand clothes” Further, a marketing manager (2) added that, “Most people are sceptical of purchasing second-hand IT products… but it is really exciting that we succeed in exceeding the expectations even though they are low to a beginning.”

5.2.4 Misconception of Refurbishment as a Concept
Misconception was the last of the barriers that has been identified previously and the respondents were asked if misconception of refurbishment as a concept was seen as a barrier. One technology expert said, “I believe this is a barrier, generally I believe that most people think that the word itself makes it sound like it is a larger risk that you have to turn it in again” (R2). A sustainability enthusiast meant that, “It is a bit blurry what refurbishment as a concept, you sometimes have to explain what you mean with it that you restore them to a like new condition” (R3). A second-hand buyer (6) continued and said, “I can imagine that you would think that it is complicated, it is a lot easier to just go and purchase a new.”

Respondent (7) a refurbished computer buyer said that, “I do not really know if they misinterpret the whole concept I think that they do not know that it exists at all. I do not believe they understand that you can purchase a fully functioning computer to a much lower price.” The respondent continued by saying that, “There you repair your old computer or by something new, this in the middle which we are discussing now, I do not believe that they know it exists even.” Further, a sustainability enthusiast was sure that refurbished is a well-known word, “I believe refurbished is such a clear word... some things has been refurbished longer than what smartphones has been, maybe an insecurity in what it is” (4). A refurbished computer buyer thought similarly, “Well, as a concept I do not think... It would be the insecurity” (8).
5.2.5 Additional Barriers

The CEO and sustainability enthusiast mentioned that those selling refurbished smartphones need to fight against everyone, “The challenge refurbished products have is that they need to fight against every company about market share, including new products and there is a certain competition from them” (R3). On a similar topic one respondent added “the big corporations have a big shutter and exposure that affects the consumers... you see commercials for new products but not for refurbished” (R2). Two respondents answered on the question if they knew about refurbished smartphones that they knew the term but not more than that. “I recognise the name but I have not tried it” (R5) and “As a term yes, but nothing more than that” (R4).

The marketing manager of company 2 talked about the lack of knowledge “If you do not have enough knowledge about it and you cannot read specifications then you probably do not know what you need and what you are looking on and then you become very insecure and then buying new is perceived as safer.” The same manager continued, “The consumer does not understand the difference between a professional computer and a consumer computer... we have a problem that our refurbished professional computers cost 3000-4000 SEK and they cost 12000-14000 SEK new but a new consumer computer costs 3000 SEK and for ordinary consumers to choose between a new for 3000 SEK and a second hand for 4 000 SEK while they look the same they will always choose the new even though the difference inside the computers are huge... we cannot really educate the whole Swedish population about the difference that is too much and they do not even grasp it this is a problem for us with private consumers... the prices are perceived as high if you do not understand this, therefore I believe that many who purchases from us they know this and they can read specifications. (C2)” One of the respondents who purchased refurbished and talked about his high knowledge in regard of technology knew the difference between the consumer computer and professional computers, “A lot of people purchase computer for 3000-4000 SEK but their quality lies far below the quality of premium computers which once cost about 15000-20000 SEK and if you buy a refurbished premium today the quality will be much higher than the low budget” (R8). He further mentioned that, “If one is briefed on the subject there are plenty of tests to read online... then it feels secure to make a purchase after reading the tests” (R8).

A respondent who bought a refurbished computer said that as he was not very aware about these types of products and that he compared the specifications, “I compared the specifications made by the refurbishment company and with Apple’s specifications on that model” (R7). The other two respondents who purchased refurbished turned to others who had knowledge about technology. Respondent (9) who looked for advice on which refurbished smartphone to buy “I asked my little brother since he has greater knowledge in technology then I do.” Respondent (3) who purchased a refurbished gaming computer to his son mailed the company for their advice “I emailed the company and asked what they could recommend and bought the computer they recommended.” He continued and said “You know exactly what you get from a Mac or Iphone so it is a lot about the
knowledge about it as well.” A technology expert added, “I do not have the knowledge about how they refurbish tem but they might miss something” (R2).

5.3 Benefits

When it came to refurbished smartphones both the respondents and the companies saw several benefits. One second-hand buyer said, “It is a benefit that you lose what you will get from used products as poor battery performance or a cracked screen” (R5). Respondent (4) who is a sustainability enthusiast argued about the environmental aspects in terms of material usage and stated that, “One does not have to extract minerals, the products circle and the lifetime expectancy is increased is which is always desirable regardless of product.” The same respondent also stated, “If the mining can be reduced through lifetime lengthening it is positive” (R4). Two respondents who have bought refurbished computers adds comments about the environmental benefits, “One saves the planet’s resources as much as possible” (R9) and “The reuse concept appeals to me, one can use the goods instead of throwing them away” (R8).

A second-hand purchaser adds a comment on the environmental benefits and brings up Fairphone as an example, “One can get the environmental benefits Fairphone has and the software of an Iphone you will get an Iphone but have been just as fair towards the environment as if you would have purchased a Fairphone” (R5). Another respondent who purchased a second-hand smartphone talked about Fairphone, “As I dropped my old phone into the sea I wanted a Fairphone due to that I had a Fairphone before but as it was so expensive I decided to purchase a used smartphone instead” (R6). The same respondent continued, “I purchased a new Fairphone before but it was in the development stage and suffered from bugs but that was dealt with until the next model so I guess I had more issues with that one really. As it was not just a new model but a new product with Fairphone and that may be the case if something is not fully developed yet” (R6). Additionally, during the interviews three more respondents mentioned Fairphone as an example of an environmental friendly smartphone. Fairphone is an example of a company who extends the lifetime of a smartphone. Product lifetime lengthening was also mentioned by a technology enthusiast who said, “One will get a longer product lifetime and those benefits everybody, both the one who purchases the product and the one who refurbishes the product” (R2). Another technology expert added, “But if one can reuse material it is a huge advantage” (R1). The financial benefit was mentioned and a refurbished computer buyer added, “Lower price, better for the environment, which is actually really good both for the salesman and the buyer” (R7). A very similar answer came from a second-hand buyer who said, “For me it is mostly environmental and economic reasons but mostly environmental reasons” (R6). Moreover a CEO for a company within the circular economy stated that, “The warranty is a real trust factor... with more expensive goods one wants to have longer warranties” (R3).

The marketing managers view the positive aspects of refurbished products similar to how the consumers view the refurbished products. One marketing manager said that, “The
positive aspect of refurbishment is of course that one recycles a product and contributes positive to the environment” (C1). Moreover, this the same marketing manager also added that, “We are so comfortable with that these products will hold for the price the customer pays plus we add warranties” (C1). A marketing manager followed the previous answer, “The environmental aspects are actually a large part and to use the goods longer because it requires plenty of materials to manufacture new goods and in particular IT-products” (C2). Financial benefits were also mentioned from the manager's perspective, “The second part is that it is a better bargain thus it is cheaper” (C2). The same marketing manager added, “It is safe when one have walked through a refurbishment process with a serious company who has the know-how and provides warranties” (C2). The environmental aspect and economical aspect was also supported by another marketing manager who stated, “The largest positive aspect is the environmental aspect followed by the economical aspect” (C3).

5.4 Risks
There were some risks with refurbished smartphones which has been seen in previous research and elaborated in this study. An environmental enthusiast talked about the obsolescence and the warranty, “One of the things is that the refurbished products do not last as long as new products and that warranties are not usually offered” (R3). The risk of obsolescence was also mentioned by a technology expert, “It might be that I will purchase a one and a half year old smartphone and it will last for six months or perhaps one year then the extended lifetime is so short it might not be worth it” (R1). The obsolescence is also mentioned by a refurbished computer buyer, “There is no warranty for eternal lifetime when it comes to laptops... Fans and cooling systems can also become slightly worn out over time” (R8).

A refurbished smartphone buyer expressed performance risk as, “Well if the original product is in such poor condition that it is not possible to use” (R9). The performance risk was supported by a second-hand buyer, “One cannot know if the product will work... there may also be plenty of scratches on the product” (R6). Further, a technology expert mentioned performance risk as well, “There is a risk that one will not get satisfied if something else is broken which the refurbishment company ought to have fixed” (R2). There was a risk with personal information lingering in the products sold and one sustainability enthusiast raised concerns about this, “There is a certain risk to spread information about oneself that is unwanted” (R4). A second-hand buyer expressed financial risk as well, “I do not like that people are walking around and especially not children with such expensive products that so easily can break, get stolen or lost” (R5). She further added regarding the pricing of refurbished, “It is still a rather high price.” Another respondent who have purchased a refurbished computer added to the financial risk “But then there is an economic risk that you will get a service cost that you would not have with a new product” (R7). The CEO and sustainability enthusiast added that, “The second-hand value of computers, smartphones and tablets are relatively high and it is not motivated by the same pricing model as new products since you may have to pay
5000 SEK for a second-hand smartphone while you pay 400 SEK per month for two years for a brand new, it is a difference.” Time risk was another factor, and one of the respondents who were an expert in technology said, “I believe that it is about not having the time or energy maybe one does not want to call somebody just because the phone broke down the phone one wanted to purchase and to operate” (R2).

From the company's point of view there were a certain performance risk experienced by their customers and one of the marketing managers stated, “Foremost the insecurity about not knowing what condition the product is in and if it works... There is also the risk of having a more limited warranty than for new products” (C3). Performance risk was also raised by another marketing manager, “It might be that the only negative aspect is when it comes to the performance levels is if an engineering company which is operating the latest programmes then it might not be proper to have a two year old computer” (C2). The same marketing manager said that most people will not notice a difference, “You will not know the difference of a three year old computer and with a new computer.” The same marketing manager continued and talked about the consumers perceived performance risk, “We have been doing this since 95 and we have less faults on our 2-3 year old refurbished computers than Dell and HP have on their new... it sounds unlikely, however, it is because we test our products down to the smallest component, every key, every pixel so we see that it works.” Further the same marketing manager started talking about the societal benefits, “It provides people who normally does not have the possibility to purchase a new computer but the people on the countryside in Poland and even in Italy and Germany in every possible social class where one cannot afford a computer but requires a computer and cannot find the means to purchase a new computer.” An obsolescence aspect was expressed by the marketing manager of the third company, “The negative aspect might be that all products are not suited for use maybe there is a due to date on everything” (C3).

5.5 Communication
The last part of the interview covered the communication of refurbished smartphones. Our questions covered where the consumers get their information, where they encounter commercials, what segments that should be targeted, through which channels, what the products should be called and lastly what communication messages should be used.

5.5.1 Advertisement Encounters
Most of the respondents stated that they came across smartphone commercials everywhere. All of the respondents mentioned that they saw commercials on social media and the internet. Respondent (4) who is a sustainability enthusiast added, “In my case it is a lot on bus stops, posters and internet of course so different newsletters or commercials on different sites.” A refurbished computer buyer talked about similar channels, “It is on TV, internet in form of banners, everywhere it is advertisement sent to your home, printed advertising in form of posters at bus stops, it is through computers and social media” (7). The same respondent added the importance of reviews, “I look if
there are any customer reviews before I buy something... before I bought my last computer I read a lot of customer reviews” (7). One second-hand buyer focused more on online advertising, “It could be on Facebook, posts on social media and news when I am browsing on my phones, thus different advertisements that comes up in my feed” (R5).

One respondent who had purchased refurbished to his son mentioned that, “It is in social media primarily, newsletters from Company 2, it is everywhere right now” (R3). The same respondent added, “It is fascinating with social media where you can create deep knowledge but in many separate bubbles.” A refurbished computer buyer added, “When it comes to refurbishment, I have looked it up myself, it is not like I have been overwhelmed with advertising directly. Now it is coming up in my feeds or wherever I am browsing... it does not matter which site you are at and you will get those commercials... if I would not have searched for refurbished myself I do not believe I would have noticed that it existed” (R8).

The respondents were asked about which commercial that affected them the most. Respondent (7) a refurbished computer buyer said, “Social media because if a banner comes up on Facebook if it for example is something new which you do not know about you can directly go to their website where they can explain more.” He further added, “If I bike past a bus stop with a big poster I will notice that I could buy it cheaper there but then I will bike away and forget about it, alternatively you do not reflect about it because it is a new product” A sustainability enthusiast, “It is absolutely the interactive advertising that exists online with moving pictures and sound and stuff” (4). Adding to this a technology expert, “I believe that it is friends or maybe video clips” (R2). One refurbished computer buyer said that he was not too affected by advertisement, “I am not influenced by advertisement... I have the level and knowledge that I have so I do not let myself to be fooled by advertising so easily” (R8).

The three marketing managers that were interviewed were asked about which marketing channels they use. The marketing manager for company (1) said, “Since we are in online retail it is mostly online we are seen. It is through google, social media and internal marketing with newsletters and email.” The same person continued, “It is ad purchase for space and Google shopping.” The person responsible for the marketing at company (3) added that, “We use Prisjakt, Blocket and Google that are the main channels we have not used traditional channels...we have especially used Blocket since refurbished becomes a product who is in the same price range as if you look for second-hand products.” The company who focused more on business to business said, “It has been a lot of email, AdWords, fairs, branch magazines and seminars towards companies and when it comes to the private consumers it is AdWords mainly.”

5.5.2 Information Search
Further, we looked into where the consumer acquired their information when they were planning to purchase a smartphone. One of the technology experts stated, “It’s mainly best in test sites... combined with reading on websites and looking at Prisjakt and
comparing specifications” (R1). Another technology expert added that he gets all his information from online sources as well as friends, “Online and also friends, sometimes someone purchases a good phone or you ask them how their phone is.” Another respondent added to the significance of the internet, “It is online completely” (R8). One of the respondents confirmed and added salespeople, “It is on internet forums, friends and salespeople” (R4). He also added, “I put most emphasis on different internet forums with reviews.” Another respondent said, “On Halebop’s website maybe and Pricerunner, I did so when I was about to purchase a phone” (5).

As mentioned before respondent (9) asked his brother about advice, “I googled around for the refurbished smartphones that were in my price class.” He added, “I found Company 3 after I watched a SVT-program 7-8 years ago and they talked about someone who purchased a computer from a company who refurbished and left a warranty and then I googled and found them.” One respondent said that it was his colleague who introduced him to refurbished products, “When my computer broke down and I got my cost proposal and it could cost more to repair than purchase a new my colleague mentioned that if you do not need something completely new check this out” (R7). He further added that, “If Company 3 would had a short movie on their website that is showing how they are refurbishing a computer that would have been even better and clearer.” One respondent who had purchased a refurbished gaming computer to his son said, “Buying new feels stupid so when I found out about Company 2 I emailed them about what computer they would recommend” (R3). One who purchased a second-hand smartphone but knew about refurbished said, “I found out about the whole thing through friends so that is one way, after that it is a bit what I look up myself on browsing around” (R6).

5.5.3 Consumer Segments
Different consumer segments were identified through the answers of the respondents and the marketing managers from the companies. One refurbished computer buyer said, “I guess it depends on how you develop the marketing activities it is possible to reach out to companies and individuals” (R7). The CEO and environmental enthusiast came with a statement regarding age, “The youngest under the age of 30 and the oldest above the age of 55 because they have grandchildren” (R3). However, the same respondent claimed that, “It may be harder to change the behaviour at the age group of people between 40-50 years of age or between 35-50 years of age” (R3). A Second-hand buyer mentioned conscious consumers as a possible customer group, “It is the conscious consumer that is the consumer group but how to find them may not be the easiest task” (R4). This is supported by another respondent who have purchased a refurbished smartphone, “Of course it is possible to find a customer niche towards more environmentally conscious consumers” (R9). A refurbished computer buyer thought everyone could be targeted, “It is for everybody mostly for the common man... and in certain cases the focus could be targeted groups but the broad mass firmly” (R8). Students were also identified as a target segment by another refurbished computer buyer, “They should really push with marketing campaigns at universities before the school starts because they will then reach younger persons who are more price conscious... and they dare to test new things and if they are
satisfied they will share it on social media... people share everything on social media” (R7). One of the respondents who purchased a second-hand smartphone mentioned another segment, “Also families with children who purchases phones to their teenagers and children since it still is a rather large expense to your children who sloppy with their things” (R5). This was supported by respondent “If it is a cheaper price tag it does not feel as dangerous to let a 6-7 year old use it in case something would happen” (R8).

The companies differed on which consumer group they targeted and one marketing manager stated that, “Out of our total annual turnover three percent comes from private consumers and the rest from B2B” (C2). However, it was added, “If one looks at our web shop activities it has increased rapidly over the last year but about half of the sales on our web shop comes from private consumers” (C2). The same marketing managers continued to talk about that they are turning more towards private consumer, “We have had a bad system to find that out but we are becoming better since we are actually turning more to private consumers also.” Another marketing manager said, “People who may have a higher position... males are to a great extend more interested in these types of products than females” (C1). The third company had a relative mix of private consumers and B2B consumers and as their marketing manager expressed, ”We are fairly mixed really we have had plenty of private customers and really more of private customers than B2B customers... it varies from time to time though” (C3).

5.5.4 Naming of Refurbished Products
The companies who sold refurbished products in Sweden used different words to describe the products. The different words that were used were: refurbished, second-hand and reused. This was presented to the interviewees in order to get their views about this.

One refurbished computer buyer thought they could all work, “All these three works actually, however, I would say that either reused or refurbished is a better description than second-hand just because they actually did something to them... the problem with refurbished is that it a complicated word according to some and it can be difficult understanding exactly what it means” (R7). He continued, “If they would create a trade association where all the companies are included they would get out the same message otherwise it becomes very confusing.” A technology expert thought that, “It is very diffuse there should be some kind of regulations to determine if something is refurbished, second-hand or reused if it does not already exist” (R2). He continued by saying, “Reused sounds disgusting and second-hand sounds like it is bad quality... however, there could be some people that shops at Tradera or Blocket who sees the word second-hand all the time and know what it means.”

One respondent who had purchased a second-hand smartphone thought that refurbished was the best word, “Second-hand could be used for keyword optimization since you might not look refurbished... but I think it is more precise if you use refurbished, so I think that is a better word since you know what it is about” (R6). She continued and said, “If you write second-hand it only means that it is used it does not include warranty or that it
works... however, more people search for second-hand.” While a sustainability enthusiast thought it depended on the situation, “It depends on the target group... refurbished sounds more academic... while second-hand sounds is an easier word” (R4).

There were some differences in which word the respondents considered being the best word. One technology expert added, “Refurbished is a difficult and an unknown word therefore I think it could be better to use maybe not second-hand but reused” (R1). The CEO and sustainability enthusiast thought that, “Second-hand means that you have done nothing with it and it is in the current condition... while if you use refurbished then you have restored it as like therefore refurbished is better” (R3). One second-hand buyer added, “Reused and Second-hand is the same for me but refurbished I see as something else when you for example refurbish a car I understand that it is fixed to as new... If refurbished would have existed I probably would have bought it because that word kling better because then I know that someone has fixed this and put down time to make it work for me as well” (R5). She further added that, “You can buy second-hand on Blocket without a third party involved cheaper... when I was buying this phone I was looking at Blocket and it was one firm who advertised and I thought, why would I buy from them? It is the same thing but more expensive”.

Many respondents thought that using different names could be confusing, one refurbished computer buyer added that, “I think that refurbished products actually is a good umbrella name and it means the same as the other words... or second hand with warranty” (R8). A refurbished smartphone buyer thought in similar terms with an umbrella name, “They should come to an agreement to call it green products because it becomes a bit sprawling and as a consumer you do not really know what refurbished is” (9).

One marketing manager mentioned that, “We try to be clear when we write refurbished that it means that we have changed components of the product... there are many who have different opinions about this in this industry” (C1). The same person further added, “There are not many companies who gives a fuck about what they call their products sometimes they think it sounds better to call it refurbished... that is false advertising... for me refurbishment means that we have renovated the product through changing the engine or something to make it last longer.” The marketing manager of company (3) added that, “It could be completely different things... the challenge is that the concept is so broad”.” The same manager continued and talked about the consumer's confusion, “They do not really know if it is completely new, like new or used for 3-4 years”. The marketing manager for company (2) thought that none of the words were good, “All the words sucks everybody just wants to avoid saying that it is old and used so then you find beautifying words to describe purchasing second-hand... I do not know how a standardising would look but it would surely benefit the second-hand market” The same manager added, ”There are other examples such as BMW and their premium selection which are checked thoroughly... that is what we want to create with our new labelling... it should stand for this have been tested on 78 points and have 1 year warranty” (C2).
5.5.5 Communication Messages

It is important for companies to know what to communicate and therefore the respondents were asked about what they believed ought to be focused on in the communication of refurbished smartphones. To answer this question one refurbished buyer talked about price and warranty, “Price is the most important and being able to provide a warranty on the products of one year. I believe it does not really matter if it is longer than 1 year” (R8). Price, environmental aspects and societal benefits were mentioned by a sustainability enthusiast, “First and foremost price secondly that the consumer’s purchase creates jobs here and thirdly that the purchase reduces the environmental impact” (R3). That the products should be completely functional was another factor raised by some of the respondents and one of them who had purchased a refurbished smartphone expressed it like this, “That it is available and fixed so it is in a good condition but also that it is good technology” (R9). A technology expert continued, “Buy this it is fully operational” (R1). A third respondent expressed it as, “I believe one should say that they have similar performance to new phones” (R5). Product warranty also arose as a factor by one respondent who purchased a second-hand smartphone, “I would say focus on the warranty and that it is not more complicated thus that the phone is fit for purpose and that you are not standing there with a broken phone” (R6). Another respondent who bought a refurbished computer said, “Be clear about that it is the same product but to a lower price so quality price and the environmental aspects are the parameters I would focus on if I was going to market this type of product” (R7).

Respondent (7) also brought up further environmental aspects, “To explain how big the environmental impact is the amount of heavy metals there are in a computer where it is mined and by who for example cobalt, enlighten people about the mining facilities in Congo Kinshasa.” The environmental aspect was strengthened by a second-hand buyer, “It is important to market the environmental aspect and to disconnect the mining activities and focus on recycling and the cost savings refurbishing is connected to” (R4). Further, a technology expert talked about informing about what a smartphone is made of, “To inform people about the interior of the smartphones and that we cannot keep doing what we are doing forever therefore we need to reuse the smartphones” (R1).

The thrill of newness is expressed by a second-hand buyer who stated, “The thrill of newness and that it is good for the environment. You should play on people’s conscious” (R5). Labelling as a branding tool is mentioned by one respondent who said, “While the company is refurbishing the product they can might as well make it cool by making it unique. To do something that makes it look as it has been fixed up maybe a cool eco-label” (R5). The respondent continued, “If the company could make it into its own brand” (R5). A technology expert made a statement about price as a quality indicator, “But if you imagine that you bought a new phone for six thousand and it lasts two years... buy this phone for two thousand and it will last for one and a half year... we are not meeting all the demands but one can pay three times less and will receive a phone which lasts almost as long as a new” (R1).
Communication regarding sustainability could be rather intangible, “It is really about making it comprehensible, this is really important because today you talk about carbon emission and not many people know how much a kilo of carbon dioxide is” (R3). One of the marketing manager talked about their use of carbon emissions in their communication “We try to talk about how much a computer for example saves in carbon emissions and that is half of 69 which means roughly 34 kilo carbon dioxide and that corresponds to run your fridge for a year or to bake 597 cinnamon buns. We usually use the fridge as a comparison, either running your fridge or warming your apartment” (C2). Respondent (6) talked about a similar topic about how the companies should communicate, “You burden the environment this much if you purchase a new smartphone and this much if you purchase a refurbished and compare that with something that he consumers have chosen to opt out recently like eating less meat, driving less cars or driving an electric car instead of a petrol powered and make some kind of carbon dioxide calculation” (R6).

The companies have been asked what they focused on in their communication. One marketing manager talked about the environmental aspects however, that was not their main argument, “We have Earth Day for example where we try to stress the environmental aspect but also to conduct a good deed... Our best pitch is however that it saves money but also that it is safe and one will get warranty on its purchase” (C1). A different marketing manager responded to the same question with, “It is a lot of focus on cost savings but also the environmental aspect of reuse but foremost the economical aspect in terms of saving money compared to purchasing a new product” (C3). The price factor was raised by one marketing manager, “As our biggest customer groups are companies and schools they do not purchase due to the environmental aspects firmly but because they are poor... so it is the economic aspects which makes them purchase our products firmly and environmental reasons comes second” (C2). Labelling as a branding tool is something the companies had thought about as well, one of the marketing managers stated, “We have for example our own eco-logo which we use for printing to make people think a little further on these matters” (C1). Another company has also thought about labelling, “Now we have developed new packages for our products that are very nice and we have also developed a label. The little G in our logo is really not a little G but an arrow and we put this label on every product this little G stands for reinventing and is a quality stamp we want to expose... it is a label just like the Windows label or Intel label but this will be a G or an arrow instead” (C2).
6. Analysis & Discussion

This chapter will present the empirical findings from our interviews and the thematic analysis. We followed a similar structure as in the empirical findings chapter to add consistency and make it easier for the reader to connect back to our findings. Theories from the theoretical framework as well have been implemented to interpret and discuss the results.

6.1 Initial Response

The results of the thematic analysis demonstrated that there are two main types of initial responses and those were positive or doubtful. The initial responses about refurbished smartphones were in general positive. However, there are some doubts about the capabilities and the obsolescence of the smartphones. The refurbished buyers were very positive while the consumers who just were introduced to the concept were more likely to feel doubt. These results supports Van Weelden et al. (2016, p. 746) where the initial response was mainly positive and a clear difference was seen between those who purchased refurbished smartphones and those who had purchased new smartphones. Our findings that those who purchased refurbished are very positive could be explained by Vinson et al. (1977, p. 45) who means that values are specifically formed through economic transactions and thereby, consumption. The challenge for the companies will be to get consumers to overcome their doubts and consider purchasing refurbished and thus their values could change through their purchase.

We found that the doubts were rooted in the lack of knowledge about what refurbishment is, what to expect, the consumer wants to know more and wanted to look into the companies that are refurbishing, similar results were seen in the study by Van Weelden et al. (2016, p. 746). These doubts can be overcome by providing the information the consumers require to feel safe enough to purchase a refurbished smartphone. However, as many of the refurbishment companies are relatively new and unknown there may also be trust issues. The refurbishment companies compete against established companies that the consumers are aware of and already trust which may lead to lower purchase intentions for the refurbishment companies.

Another interesting initial response was that one respondent wanted to have the possibility to purchase a phone which was easily repairable, it was mainly the battery which was the problem and the possibility to change the battery would appeal to him. Designing for reuse is a major part of the circular economy and Nasr and Thurston (2006, p. 17) showed that if we want to get the full societal benefits products need to be designed for remanufacturing. Fairphone is for example a company which business model is about designing smartphones for re-use and reparation with fair materials and the awareness of Fairphone were high among our respondents as many mentioned them as a positive example of a company selling an environmentally friendly smartphone (Fairphone, n.d).
Therefore, our results show that there is an interest in smartphones that are designed to last and being repaired. Hence, opening an opportunity for the refurbishment companies to communicate towards private consumers.

6.2 Barriers

Through our thematic analysis we were able to identify five themes and the barriers is one of them. This section will elaborate the investigated barriers and those that we have found, we will analyse all the barriers and examine them and what the companies can do to break the existing barriers will be further discussed.

6.2.1 Lack of Awareness

As mentioned in the empirical findings section all respondents thought lack of awareness was a barrier to purchase. This was seen as the largest barrier and many consumers did not know that refurbished smartphones even existed, therefore refurbished smartphones could not become an alternative for purchase. Another respondent who regularly purchased second-hand products said that she did not know about refurbishment until the interview. This supports previous research who also found lack of awareness as a major contributor for consumer not purchasing refurbished (Mugge et al., 2017, p. 293; Van Weelden et al., 2016, p. 746). The study by Van Weelden et al. (2016, p. 746), also found this barrier and they found that most consumers never even considered a refurbished smartphone because of the lack of awareness. The consumer decision-making model demonstrates that a consumer search for information to spot alternatives to purchase and the desirability in those alternatives (Engel et al., 1968, p. 379). However, the majority of the decisions made were not searched externally by the consumers, but could rather be taken from personal sources (Engel et al., 1968, pp. 378-380). Thus, if the consumer could not find any information about refurbished smartphones while searching there is a very limited chance the consumer will purchase a refurbished smartphone as the consumer is not aware about them. This is a vital aspect to have in mind as the consumers search for information and purchase online they need to find information about the refurbishment companies and their products to be able to make a purchase. One respondent stated that if people would know about refurbished smartphones they would be more than happy to buy it.

In addition, the awareness was not enough to make people purchase refurbished products, trust was also required. Trust towards the company who sells refurbished products can be an issue especially since the companies are rather small in comparison to the companies who sell new products. It was mentioned that if an original manufacturer would refurbish their products then the consumers trust could be higher than towards the smaller companies in the refurbished market. This was not found in Van Weelden et al. (2016) but have, however, been seen in previous research (Subramanian & Subramanyam, 2012 p. 324). Consumers worried about the issue of money spent, therefore trust was required as the refurbished smartphones were quite expensive to purchase. The product visibility for the consumers was also an issue and the consumers need to actively search for
refurbished products to find them. Nevertheless, one respondent said that he came across his refurbished smartphone via an ad on social media. This phenomenon displays that the refurbishment companies are starting to promote their products so the consumers can spot them, this is still conducted in a small scale as it seems, and thus the awareness is still low about refurbished smartphones. The lack of knowledge about what refurbishment is may hinder consumers from buying refurbished smartphones. We are so disconnected from the production that we do not see the factors such as the labour and the materials used behind a manufactured smartphone. The manufacturing process may be of importance for the refurbishment companies to show and communicate as a marketing tool since it will raise awareness about how new smartphones are manufactured and why people should purchase a refurbished smartphone instead. To overcome this barrier persuasion tools could be used (Waterschoot & van den Bulte, 1992, p. 88). The persuasion tools can provide the consumers with enough information about refurbished products and make the consumers realise the benefits about them. A possible way of communicating the benefits is by focusing on the energy saved by purchasing a refurbished smartphone over a new smartphone. If the refurbishment companies could incorporate communication like this into their communication it could convince some environmentally conscious consumers that refurbished products is an alternative.

6.2.2 Lack of Availability

The lack of availability was according to many respondents connected to the lack of awareness. Our findings showed that there is not a lack of availability the lack of availability was rather seen as a lack of awareness among the respondents who did not even know about the availability. Additionally, those who knew about the availability all thought that the availability was good. The findings made supported the fact that the lack of availability was not a barrier in this case but it was rather the lack of awareness hindering them from seeing the availability.

Online shopping was what most of the consumers claimed to use when they purchase a smartphone. This was supported by previous research by Teo and Yeong (2003, p. 357) who said that, online shopping was made much easier with the internet compared to having to go to a physical store to collect information about the products one wished to purchase. According to Ashman et al. (2015, p. 140) some steps of the consumer decision-making model had been shortened due to online shopping. As our findings suggest that the majority of the consumers shop online today and the fact that refurbishment companies only had an online presence. Therefore this was not a barrier for refurbished smartphones, this was contrary to the findings by Van Weelden et al. (2016, pp. 746-747) where the consumers felt it was a hassle having to purchase the smartphone at a website and not through established chains. Two companies mentioned that their challenges lied in purchasing products to refurbish rather than selling refurbished products. This supports results by Östlin et al. (2008, p. 347) who emphasises the importance of the steady return of flows as a crucial component for the refurbished market. Thus, our study found the lack of availability does not exist for the consumers as Van Weelden et al. (2016) discovered, but rather that there was a lack of availability of products to refurbish for the
companies that was the problem. This was an interesting finding that suggests that more focus should be given to the return of products and perhaps the behaviour of the consumers and organisations willingness to return their old equipment to a company who refurbish it.

6.2.3 Lack of Thrill of Newness
Our findings suggest that the thrill of newness was something that matters for the consumers in their purchasing process. This was seen as a barrier and some people enjoy purchasing new smartphones. This barrier was generally seen as large for the consumers and this was in line with previous research about refurbished smartphones (Mugge et al., 2017, p. 293; Van Weelden et al., 2016, p. 747). Another respondent said that it is boring to purchase smartphones but the pleasure of newness is great. In order to get around this barrier the refurbishment companies can communicate planned messages about packaging and through using sales promotion (Duncan, 2002, p. 129; Moriarty, 1994, p. 39). If the refurbishment companies continuously work with their packaging they could provide a larger thrill of newness with refurbished smartphones.

The consumers have prejudices about refurbishment was another finding in our study. One respondent talked about that consumers have preconceptions about second-hand and refurbished smartphones. Harms and Linton (2015, p. 895) supported this by claiming that customers with or without pro-environmental attitudes could show concern about lowered functionality in refurbished smartphones. However, Vorasayan and Ryan (2006, p. 371) claimed that if the quality of refurbished products are perceived as good as new products a customer would be indifferent towards the two different products. As of this, it could be an advantage for the refurbishment companies as their products maintain almost as high standard as new products.

The findings gathered from the companies illustrates that the consumers wanted the thrill of newness and that this definitely was a barrier for purchasing refurbished products. Our findings showed that the second-hand feeling was contributing to this barrier. Thus, making it harder for the companies to sell their products that they may need strategies to overcome this barrier. Another company talked about that consumers often tell themselves that there is a huge difference between refurbished products and new products when in the matter of fact is not. This align with the problem of refurbished smartphones being seen as a second-hand products and the companies need to yet again, come up with communication strategies to overcome this. One respondent gave a possible solution that refurbished smartphones need to be made into something hip such as second-hand products have become in other product categories. This could be done through using branding and making the refurbished products into their own brand instead of being a second-hand product of another brand. This was an interesting finding since the companies selling refurbished products were selling other companies brands without any clear branding themselves.
6.2.4 Misconception of Refurbishment as a Concept
The respondents who purchased refurbished had really good knowledge about refurbishment. Further, the respondents who had not purchased refurbished generally either did not know about refurbishment at all or had a rather good idea because of other contexts. It was mentioned that the word could be a bit complicated and that that could lead this to being a barrier. There were some mixed results regarding misconception of refurbishment as a concept, however, many of the findings that point towards this being a barrier is connected to the lack of awareness and was therefore not seen as a barrier in our study. Van Weelden et al. (2016, p. 746) found this to be a barrier for both people purchasing new smartphones and refurbished smartphones and that the consumers thought about refurbished smartphones as second-hand smartphones. Our findings cannot support the previous findings that misconception of the concept is a barrier. Even though that there were some element of a second-hand feeling about refurbished smartphones, once again the lack of awareness of refurbished smartphones that exist is reason rather the reason than the misconception. Moreover, respondents mentioned that refurbishment could be still be understood by most of the people.

6.2.5 Additional Barriers: Lack of Knowledge
In addition, to the barriers that had been identified in previous studies our thematic analysis identified two possible additional barrier, however, only one that was seen as a barrier in the end. Two respondents mentioned the big retailers of today as potential additional barriers, however, our findings do not support this and they rather fit within the other barriers such as lack of awareness. It was clear that there was a lack of knowledge that lead to consumers not considering purchasing refurbished. Some consumers knew about refurbishment briefly and if being further informed about the subject it could make the consumer feel more secure. Additionally, the products sold by the refurbishment companies hold a high standard but because of the consumer do not have the knowledge of reading specifications it was easier for them to turn towards new products where they feel there is less risk involved. Our findings showed that the respondents who purchased refurbished had high knowledge about technology, the ability to compare specifications or had turned to someone who possessed the knowledge.

This could explain why the main customer segment that the companies have today are mainly men who are technology interested and can read specifications. This was contrary to findings by Mugge et al. (2017) which showed that environmental enthusiasts were the group with the highest purchase intention and technology experts as one of the lowest groups. Our findings showed that this was because the knowledge the consumer have about technology. When a high level of knowledge about technology exist consumers can read the specifications and limit the perceived risk, while consumers who cannot do this fails to limit the perceived risk. However, our technology experts had not purchased refurbished and this can be explained that other barriers such as lack of awareness have hindered them to see this phenomenon as an alternative.
In order for the refurbishment companies to reach out to more segments they thus need to relieve the consumers from the risks that is connected to purchasing refurbished smartphones. As mentioned before, the lack of knowledge were also seen to be the reason creating doubts in the consumer’s initial response towards refurbishment. Companies need to either educate the consumers or make them feel secure to they help the consumer who lack the knowledge to overcome this barrier. Mugge et al. (2017) gave introduction of a classification system as a way to inform the consumers and gave them insights about what they could expect in terms of appearance, battery status, and use history etcetera as a way to reduce some risks with refurbished products. This could also be used in order to help the consumer who lack sufficient knowledge about technology to overcome this barrier. This barrier was vital for companies to tackle both since it creates an initial doubt but also because the segments with the highest purchase intention according to previous studies might go missed due to lack of knowledge.

6.3 Benefits
Through our thematic analysis found four different themes of benefits. The findings of our study suggested that environmental benefits matter a lot as a purchase criteria for many consumers. In order to make these findings an open question was prepared about what benefits they saw with refurbished products and the environmental benefits was a returning theme. One respondent who has purchased a refurbished smartphone mentioned that refurbished products save the planet’s resources. This finding was supported in an article by Michaud & Llerena (2011, p. 419) who said, with the introduction of the environmental benefits, it was seen that the consumer do not undervalue the remanufactured product anymore. Furthermore, the reuse concept appeals too many due to it was better to reuse than to throwing it away. An article by Mugge et al. (2017, p. 293) underlined this by saying that awareness of refurbishing and the perceived environmental benefits affected the consumer purchasing intention positively. Moreover, the companies were also interested in the environmental benefits the refurbished smartphones were connected to. Our findings show that several of the companies claimed that it is the biggest positive aspect. This was an interesting finding as both the consumers of refurbished smartphones and the selling companies have a similar mind-set regarding refurbished products, therefore it may be a foundation for company loyalty, enhanced purchase intentions and market growth.

Even though the environmental benefit was seen as important, financial benefits were seen as the major benefit affecting the consumer’s purchase decision. Connected to financial benefits warranty was a benefit mentioned by the respondents. Warranty was a big trust factor as the products were quite expensive. This was aligned with Van Weelden et al. (2016, p. 751) who proclaimed that companies ought to offer high quality service and warranty programmes to relieve the consumers from any performance related risks. That refurbished products had better performance in comparison to second-hand smartphones. Two benefits seen with refurbished smartphones over second-hand were the battery performance would be better and there would be no broken screen. This was supported by a company who stated that it was safe to purchase a refurbished smartphone when the product has gone through a refurbishment process with a serious company. In
terms of societal benefits refurbished smartphones prolongs the lifetime of which benefits not just the consumer and the company but also the environment. The societal benefits may withhold a bigger perspective than factors mentioned before by creating jobs here in Sweden as well as enabling consumers in Sweden and other elsewhere who does not have the possibility to purchase new computer to have access to a cheaper option with high quality. Consumers were becoming more environmentally aware today and lifting the bigger societal issues that refurbishment helps to solve could be a vital selling point.

Financial and environmental benefits were both as well as higher performance than second hand products were all seen to be benefits in Van Weelden et al. (2016, pp. 747-748) while they also found lack of undesirables innovative features and unique product features that were not seen in our study. The reason could be that we included fewer people who purchased refurbished however, this had not been seen in previous research either (Van Weelden et al., 2016 p. 748). Furthermore, our study also found an additional benefit which was the societal benefit.

6.4 Risks
The thematic analysis identified 5 different themes about risks. The barriers often stop the consumers from taking refurbished smartphones into consideration; however, if consumer overcome the barriers the consumer enters the evaluation phase where they will weigh the risks and benefits (Van Weelden et al., 2016, p. 747). One clear pattern that was found was that even though benefits existed, there were several risks that were in the way for the consumer purchasing or even considering refurbished smartphones.

The first risk was the performance risk which was also seen as the largest risk by many of our interviewees. The consumers simply did not know enough about refurbishment, hence, there were questions arising about the performance of the products. It could be either a poor product or something that should have been fixed by the companies but was not. This has also been the largest risk in a previous study (Van Weelden et al., 2016, p. 748). The companies believed that this was a big risk that the consumers perceived, but does not necessarily exist. While some companies who had a really high performance demands for their daily activities may not be able to have an older computer but the majority could. It was largely about the insecurity and the lack of knowledge. One company had fewer faults with their products than the companies selling new the products; hence, our results showed that the consumers see a large risk that does not really exist. This is a risk that may be enlarged by too little information provided from the refurbishment companies about what refurbishment is. Lack of knowledge could according to a marketing manager could be a symptom of too little information provided by the companies. To solve this the companies need to provide the possibility for consumers to find the information through for example advertising that the consumers understood to reduce this risk. Thus, a finding in our study was that this risk might not necessarily need to exist, however, it did exist in the mind of the consumers and the
companies’ need to communicate the performance of refurbished smartphones through their advertising.

The second risk that was found was financial risk and even though the price of refurbished smartphones were significantly lower than for new there was still a significant investment and thus a perceived risk attached by the consumers. One of the interviewees mentioned how she did not like walking around with something to expensive in case of dropping it, and that kids that could drop, lose or get the phone stolen. The consumer could therefore feel that the money was not well spent and this was also seen in Van Weelden et al. (2016, p. 748). Greenleaf & Lehman (1995, pp. 194-195) found that a longer time was needed in the information and evaluation stage when financial risk was added, their findings said that word of mouth is more effective in eliminating the lag created by financial and performance risks. The fact that the companies are offering warranties could reduce this risk but at the same time the smartphones are relatively expensive so the companies may need to rethink how they sell refurbished smartphones. A finding in our study was that the companies selling refurbished smartphones should rethink their pricing model and align to the market standard. New smartphones were often sold in package deals where the customer pays a monthly fee for a subscription and the smartphone. This could be a way for the refurbishment companies to sell their smartphones and adapt to the current market conditions for smartphones. The consumers are used to the market standard and since refurbished smartphones still was a significant cost it may invoke feelings of more security and trust with a monthly payment instead of paying everything upfront. It is difficult to sell one's product differently than the market standard.

Another risk that Van Weelden et al. (2016, p. 748) found was time risk. This was also seen in our study with the consumer not having the time or energy to contact the company if something would happen to the phone. Both our and Van Weelden’s (2016) study found that the fear of losing time when the refurbished product failed to deliver exist, however, they additionally found that the loss of time when having to return the refurbished smartphone for maintenance as a factor which we did not see (Van Weelden et al., 2016, p. 748). One reason that we did not find that factor could be due to that we interviewed fewer respondents who had purchased refurbished products.

Obsolescence risk was also seen in our study. The respondents were worried about how long the smartphone would last and how certain things get worn out. Hence, the respondents thought that if they purchase a refurbished the risk of obsolescence would increase. Van Weelden et al. (2016, p. 748) also found the fear of obsolescence as a risk for purchasing refurbished. A smartphone is seen as a product that is used heavily and intensively and thus is worn out and obsolete after two years.

The last risk has not been seen in the study by Van Weelden et al. (2016). The risk was personal information, where the risk is about information on the products spreading. However, this risk was concerning second-hand products primarily and thus the issue may not be as big regarding refurbished smartphones but the consumers were still viewing this
risk as a potential risk for purchasing refurbished smartphones. Therefore, it is a problem if the companies cannot provide information about what they sell exactly to distance themselves from second-hand products and present that they sell refurbished smartphones and therefore distancing themselves from the risks following second-hand products. Furthermore, since companies are mainly struggling on purchasing products rather than selling, this could be a barrier for them to get consumers to turn in their old products to them. Therefore it is vital for the companies selling refurbished smartphones to provide the consumers with information about how they treat and erase information from the products that they receive to make the consumer decide to turn in the product instead of keeping it in their drawer.

6.5 Communication
This section analyses and discusses the different findings that were found regarding the communication and how it could be used to break the existing barriers. Further, this section will discuss a variety of solutions for the refurbishment companies that they can implement or consider when they developing communication strategies.

6.5.1 Advertisement Encounters
Our findings showed that the respondents came across smartphone commercials everywhere. Respondents mentioned that they came across it at bus stops, posters, the internet, printed advertising and social media for example. One respondent had to find the information about refurbished products himself. Respondents who had purchased refurbished products often get ads on social media regarding refurbished products, however, no-one else had seen commercials for it. This may be an important reason for the awareness issue this branch suffers from, the companies were not getting the word out about their products to private consumers except those who had already purchased. Another issue may be that they were not communicating as they should in order to attract private consumers and influencing them to purchase. Those who have been searching for refurbished products are afterwards receiving plenty of commercials about refurbished products and one of the respondents brought up that the commercials might exist different internet-bubbles. Internet bubbles may be a way for the companies to reach out to possible consumers who were interested in this sort of products; however, they only seem to include those who have purchased refurbished products right now. Thus, they could miss important groups such as second-hand buyers and environmental enthusiasts who had low awareness but a rather high purchase intention. Harms and Linton (2015, p. 901) claimed in their article that the willingness to pay for refurbished products increases if consumers had positive attitudes towards environmental issues. The finding by Harms and Linton (2015) could be used by the companies in their marketing activities, the marketing activities could focus on consumers who cares about environmental issues, thus, increasing both their awareness to influence purchase within this group.

On the question about which commercial affected the consumers the most, many of the respondents said that commercials on social media or interactive advertising with moving
pictures and sound affected them the most. This was supported by Castronovo and Huang (2012, p. 118) who said that social networking is becoming more effective than traditional marketing channels due to better customer engagement. Moreover, poster commercials did not affect the consumers as much but they only noticed the commercial but did not further reflect upon it. Traditional advertisement may therefore only be used in a minor scale compared to internet based advertising. Our findings were therefore that interactive commercials on the internet and most preferably on social media would work most effective for the companies to get the word out and to raise awareness about refurbished products. Castronovo and Huang (2012, p. 117) says that social media can be an advantage for smaller or medium sized companies as they often lack the resources to use traditional marketing tools. They therefore, support that social media could be most effective for the refurbishment companies due to that they were smaller than the new smartphone sellers, thus having less resources at their disposal.

Our findings regarding where the refurbishment companies advertise showed that the companies advertise mainly online. Google shopping, Blocket and Prisjakt were used by the majority of the companies. One company explains that as they have all of their operations online, they only used internet based commercials and were excluding traditional marketing channels completely. This follows our finding in what channels works most effective for the companies to raise the consumers’ awareness.

6.5.2 Information Search
The major finding regarding information search was that almost everybody used the internet foremost to acquire information about which smartphone to purchase. Our findings also showed that forums with reviews were widely used and asking friends was common as well. One respondent said that he asked his little brother who had better knowledge about technology than him. Another respondent said he found out about refurbishment through friends. Greenleaf and Lehman (1995, p. 194) found that word of mouth is effective in eliminating the lag created by financial and performance risks. Our findings show that word of mouth helps in breaking the barriers for purchasing refurbished smartphones since consumers relies heavily on what other consumers with experience or knowledge reason about their purchase. Best in test forums such as Pricerunner and Prisjakt were used to spot which product was the best. Interpersonal contact was the most frequent type of source used between consumers to search for market information and had a big effect on consumer’s minds (Kiel & Layton, 1981, p. 233; Price & Feick, 1984, p. 250). These articles supported that word-of-mouth was an effective way for consumers to get market information, thus companies should utilize word of mouth to promote refurbished smartphones. As the consumers were using each other as sources the companies could encourage this in their communication to promote refurbished smartphones and in a way manipulate the customers to talk about their refurbished smartphone purchase to spread the word.

One respondent said he used a salesperson as an information source when purchasing a smartphone, this could be a negative aspect due to many of these companies are online
based with no physical salespeople to ask in a physical shop. This may also be negative as many consumers have a hard time understanding the product specifications and therefore not being able to consult a salesperson prior to the purchase may lead to the consumer being uncertain about the product which will most probably not lead to a purchase. According to Duncan (2002, p. 133) and Winter and Sundqvist (2009, p. 203) unplanned messages were hard to control and could be both positive and negative. Thus, companies need to be aware about this and make sure to excel in their activities so the word of mouth becomes in positive. One respondent got a tip from a colleague who had purchased refurbished products before and thus positive word of mouth contributed to the respondent making the purchase decision.

6.5.3 Consumer Segments
In order to communicate it was important to know who the communication should be targeted towards. Our findings suggest that the marketing should be targeted towards younger to middle aged consumers. Nevertheless, the general impression was that this was a product that could be marketed to everyone. Our findings showed that conscious consumers who cared about the environment were a specific group to be targeted with the communication. Our results therefore supported Mugge et al. (2017, p. 293) findings that this is a group that should be targeted. Mugge et al. (2017, p. 293) also found that this group has a low awareness and high purchase intention. Similar findings could be seen in our study with the respondents who works with sustainability and bought second-hand had relatively low awareness with a positive response towards refurbished smartphones. Our findings also showed that students and families who seek to purchase smartphones for their children were groups that should be targeted since they are price sensitive. However, there are still major barriers that stop the consumers from purchasing refurbished smartphones. Mugge et al. (2017, p. 293) further added that simply providing information about refurbishing to consumers were positively affecting the consumer's purchase intention. This supported our results showing that lack of awareness was the major barrier for the consumers. The consumers that actually purchases refurbished smartphones today were mainly men interested in technology that can read the specifications. These findings were contrary to our findings as well as the findings of Mugge et al. (2017, p. 293) that environmental enthusiasts should be the target group. They could potentially be the target group, however, the knowledge and the ability to read a specification seemed to be a barrier for many consumers who were environmental enthusiasts even though the environmental message was included in the communication. Thus, the companies need to lessen the knowledge gap that exists to successfully market themselves to environmentally conscious consumers which potentially is a very important segment.

6.5.4 Naming of Refurbished Products
Our results showed that the naming of refurbished products was confusing and both the consumers and the companies agree that this was not an optimal situation. It is clear that all terms had their benefits and problems, however, using different names makes the
communication sprawling. All of them arguably work as a definition of a refurbished product. Second-hand and reused smartphones were often thought to be similar and also connected to bad quality. The companies still use this definition since the customers were more familiar to these words than they were too refurbished. Further, one respondent who purchased a second-hand smartphone thought that second-hand should be used as keyword optimization since consumers might not search directly on refurbished smartphones. Second-hand was connected to not being fixed and being without warranty while it could be an easier word. One second-hand buyer spotted an ad from a company selling second hand goods, it could likely have been a refurbished smartphone that was presented, and however, the risks connected with the word “second-hand” made her choose a cheaper smartphone from a consumer instead. Thus, if the naming would have been different the outcome could have been different Therefore, it is important for companies to inform the consumers about this option and differentiate themselves from general second-hand products. According to Duncan (2002, p 135) unplanned messages could be created by the actions of competitors. This was the case when it comes to refurbished products and the different communication created a confusion among the consumers.

Our results indicated that this is a barrier for refurbished smartphones becoming a viable option for the consumers. If the companies could use the same word for the product it would decrease the confusion and that would be a benefit for the industry. There is a need for some sort of umbrella name and refurbished and “green products” were two options found in our study. Out of the three names that are being used today refurbished was the option which most consumers thought was suitable.

6.5.5 Communication Messages
In order to communicate to attract customers our findings suggested that price is a major aspect to communicate. Several respondents said that price would be one of the most significant factors when the consumers were searching for refurbished smartphones. Moreover, adding warranty in combination with a good price is a vital aspect in regard to communicating refurbished products. One respondent said that price is important but if a one-year warranty it would make a difference. This was supported by another respondent who said that they ought to focus on warranty first and price second. Van Weelden et al. (2016, p. 751) supported that warranty ought to be offered as it relieves consumers from performance related risks. This was what the consumers may mean when they expressed their desire for the companies to offer warranties. Furthermore, the companies should communicate that the refurbished products worked as good or almost as good as new smartphones. If this could be presented by the companies who sell refurbished products properly and in combination with the price and warranty on the product it could be a very good selling point and thus increase consumers purchase intentions. An article by Albers-Miller and Stafford (1999, p. 44) brought up that rational advertising which focused on brand attributes and wanted to persuade consumers by providing arguments and information about the brand attributes. Albers-Miller & Stafford (1999, p. 53) further stated, that rational appeals worked better for goods than for services. This coincide with
our results that the interviewees mainly thought that rational appeals should be used in the communication. Thereof, rational arguments may be used to attract consumers to the companies, enhance the consumer’s purchase intentions of refurbished products and raise awareness about the products.

Several respondents also mentioned that it was important to market the environmental aspects as well. However this was not something that the respondents thought should be communicated as a priority matter but rather as a side argument. For example one respondent thought that to inform consumers of how much heavy metals there are in smartphones would be a good way to promote refurbished smartphones. To play on people's conscious is another way according to one respondent. To display how new phones affect the environment and how much a new smartphone impact the environment is something that could be very persuasive for some consumers and lead them into changing their purchasing habits to refurbished products instead. Theory is supporting these findings and a study conducted by Leonidou and Leonidou (2009, p. 543) claimed that emotional appeals focused less on facts but on aspects that challenge and provoke which made people curious. The consumers could by displaying the emotional aspects of environmental issues made them curious and realise the benefits of refurbished products. Furthermore, since people are becoming more environmentally conscious it could be beneficial in informational campaigns to make consumers aware about the environmental issues of producing a smartphone. Dembkowski and Hammer-Lloyd (1994, p. 595) found that as the environmental awareness is increasing, consumers have started to rethink and re-evaluate their personal values and beliefs. Thus, as already mentioned, it could be beneficial for the companies to elicit consumer’s curiosity and challenge them to raise awareness about refurbished products.

Even though the respondents thought that rational appeals to work best in communicating refurbished smartphone many people were aware of Fairphone and many of them had no idea about refurbished smartphones. Fairphone who uses emotional appeals talking about their mining of fair materials as well as their modularity has according to our finding a high awareness among consumers. Our findings showed that rational appeals should be the focus of the communication, however, this finding contradicts that finding and it could make sense for the companies to follow Fairphone’s lead and focus more on the emotional appeals. As one respondent said, refurbished products have all the benefits of a Fairphone but having the user friendliness of an Iphone while being much cheaper. This could be a positioning that could be beneficial for companies selling refurbished smartphones.

Our thesis found that labelling could be used as a branding tool to create higher awareness for the companies. One respondent said that as the company that is refurbishing the smartphone they could put a label on it so the consumers can see that it has been refurbished. According to Duncan (2002, p. 131) product design sends a vital message and also sends out brand messages to the consumers. Duncan (2002, p. 129) also said that planned messages is used to communicate company promotion and brand knowledge for example. Both the product design and planned messages were of importance here as the
labelling on the product would affect both of these techniques. To put a label on the product will present the product as a refurbished product which will have an impact upon how the consumer reason about it. Furthermore, it would be a planned message from the company that may increase the brand knowledge or in particular the knowledge that the smartphone was refurbished which was not the case today. Our findings showed that some of the companies were beginning to work with labelling with the purpose of making it into a quality stamp and a branding tool for them. According to (Nelson, 1970, p. 327) the consumer could only determine the products quality through purchase and usage therefore branding their products could eliminate the need of purchase and thus through using the products consumers can determine the quality of. Since the companies often exceeded the expectations of refurbished products since they were usually low to a beginning, it is likely that getting consumer to try their products would end with a positive impression the company. Furthermore, as these companies are selling to schools, companies and organisations a label would help the refurbishment company to increase the awareness of their company and to show that the product is refurbished. This can also be done while removing the financial risk since it is not the consumer itself but rather the school, company or organization who makes the purchase. Some of the respondents were environmentally conscious and therefore they may want to show off that they have an environmentally friendly product like with the Fairphone example. The companies should start to brand themselves more to increase brand knowledge and to communicate that they are a company that is concerned about the environment.

The communication regarding sustainability often becomes abstract with for example focusing on carbon emissions. This is done today by one of the companies who compare the amount of carbon saved through purchasing refurbished and comparing the carbon saved to the amount of energy used for powering a fridge for a year. However, our findings suggested that carbon emissions are very abstract and therefore the comparison has to be made carefully. The companies are on the right track talking about carbon dioxide, however, powering ones fridge for a year and how much energy is required, this is something that the consumers probably are not very aware about. Therefore our findings showed that the comparison should rather be focusing on things that consumers are already choosing to decrease or eliminate such as eating less meat, driving less or driving an electric car instead. It is about making it tangible for the consumers and since few consumers understand how much a kilo or a ton of carbon dioxide is and the difference between them the comparison is vital in order to make it tangible.

Furthermore, a finding was made regarding price as a quality indicator. Even if not all the demands a consumer has for a new smartphone purchase are met refurbished smartphones are lowered priced, have a high quality and last for almost as long. This could be a huge benefit for the companies to communicate as the price is still lower for refurbished products than for new products while the quality is practically the same even if consumers often regard the refurbished quality as lower. Moreover, a company stated that it was in first hand economic reasons why their customers purchased from them. Thus, it strengthens the argument to communicate that the quality is almost as good as new but
with a better price. This is something that may not align with how the market for new smartphones operate as a high price in the new smartphone market is often connected to higher quality and vice versa. Nevertheless, for refurbished smartphones the price quality relationship is contrasting. If the price - quality relationship may be coordinated with labelling techniques that communicate high quality so the consumers may consider refurbished smartphones as a viable alternative when they seek for a new smartphone. Furthermore, it is still vital for the companies to set an appropriate price to attract consumers. Vorasayan and Ryan (2006, p. 370) supported this in their findings which stated that pricing of refurbished products should be dealt with caution as it will determine the demand and thus affecting the profits of a company.

6.6. Revised Decision-making Model for Refurbished Smartphones and a Communication Model for Refurbished Smartphones

The analysis and discussion has led to the revision of the model of the consumer decision-making process showing the main factors influencing consumer acceptance of refurbished mobile phones proposed by Van Weelden et al. (2016). The first adjustment has been made on the initial response where the results were the same as previous studies, however doubts were included in the model to clarify the results. Further, the barriers, the lack of availability barrier and the misconception of refurbishment as a concept was not been seen as a barrier in this study and was therefore removed. However, two new barriers have been discovered, the naming of the products and lack of knowledge. Moreover, other adjustments have been made in terms of benefits and risk with refurbished smartphones. The benefits that were not found in this study are; absence of undesirable design features and unique product features while societal benefit was added to the benefits. No risk was removed but the personal information risk was added.

![Figure 2. Own findings advancing the model by Van Weelden et al. (2016, p. 751)](image-url)
The analysis and discussion further led us to a creating a model of communicating refurbished smartphones. Products, planned and unplanned messages were all seen to be important for the companies while service messages were not included. This could be since the companies operate online and thus have limited contact with their customers. Both rational appeals and emotional appeals should both be used while rational appeals. The channels that the companies use should mainly be social media, interactive communication and word of mouth. As mentioned before, the barriers have been revised through excluding misconception of refurbishment as a concept and lack of availability and adding naming of refurbished products as a barrier and lack of knowledge. The receiver or target group could according to our findings be everyone but the focus should be on young to middle aged consumers, students, families, conscious consumers and consumers who are interested in technology.

![Communication model for refurbished smartphones](image)

Figure 3. Own findings: a communication model for refurbished smartphones
7. Conclusions

This chapter will outline the conclusions that we have reached in this research and discuss both the theoretical contributions we have achieved as well as the practical implications. A discussion about the limitations of the study and suggestions for future research will be elaborated and lastly we will go through the truth criteria’s of the study.

7.1 General Conclusions

The purpose of the thesis was to develop a deeper understanding about the barriers for the consumer acceptance of refurbished smartphones and how companies can communicate in order to overcome the barriers. We investigated the consumer acceptance of refurbished smartphones and how communication can be used to break the barriers and proceed the consumer in the decision-making process and therefore consider refurbished smartphones as an alternative.

To answer the research question we used a qualitative method to gain a deeper understanding about the topic, including interviews with people who had bought refurbished products, used products, technology experts and environmental enthusiasts. We also interviewed marketing managers of companies who sell refurbished products to examine what their views were on the issues to gain a deeper understanding of refurbishment. The respondents were asked questions about what their initial response were to refurbished smartphones, what benefits, risks and barriers that they saw with refurbished, new and second-hand smartphones as well as where they were exposed to smartphone commercials and communication of refurbished smartphones. The companies were asked similar questions but the questions focused more on how they could use communication to break the barriers. The companies were also used to add credibility and as they would complement, confirm and add to some of the other respondents’ answers. Thus, to fulfil the purpose of this research we posed the question:

How can companies communicate to break the barriers for the consumer acceptance of refurbished smartphones in the Swedish market?

Our findings suggest that consumers were generally very positive about refurbished smartphones and when awareness existed, many would consider it for their next smartphone purchase. Nevertheless, doubts were raised due to lack of knowledge about refurbishment and the consumers wanted to more information about the companies who refurbish smartphones. The barriers that were identified from previous research are: lack of awareness, lack of availability, lack of thrill of newness and misconception of refurbishment as a concept. The largest barrier according to our findings was lack of awareness. When the consumer lacks awareness they cannot purchase a refurbished smartphone. To address this, one finding was to communicate the refurbishment process. Nevertheless, awareness was shown to not be enough, trust was important too. Many of the refurbished product companies are small and need to gain the trust of the consumers, therefore if larger companies and original manufacturers would sell refurbished
smartphones they could invoke more trust in the consumers. The second barrier elaborated in this thesis was the lack of availability. This barrier was not seen as a barrier as it was rather the lack of awareness barrier hindering the consumers from seeing the availability. The third barrier, the lack of thrill of newness is a barrier that exists according to our findings. Prejudices about refurbished smartphones were found as a contributor to this barrier, but companies could use package design to overcome this barrier. The fourth barrier was the misconception of refurbishment as a concept, our findings suggest that this was not seen as a barrier either. The concept is not very hard to understand and if so, people could understand what it is by the name. Further, lack of knowledge is a barrier that was found in our study that has not been seen in previous research. It was seen when consumers lack knowledge about refurbishment and especially technology so they cannot read the specifications that enlarges the perceived risks.

Our findings suggest that environmental aspects were a major purchase criteria, however, the major aspect influencing purchase behaviour the most according to our findings was the financial benefits of refurbished smartphones. Price and warranty in combination is vital for the consumers to consider purchasing a refurbished smartphone. A third major finding is regarding the societal benefits. Refurbished smartphones were not just good for the buyer and the salesmen but also for the entire society. The major risk was performance risk, it could be a poor product. A second big risk that was found was the financial risk, even though that refurbished smartphones have lower prices than new smartphones, it is still a substantial amount to pay. A finding suggests that a way to reduce this risk is through the companies to provide the opportunity to pay for a package deal for the smartphones, similar to how the major retailers sell their smartphones and therefore adapt to the market standard.

Our findings suggest that price should be focused on in the communication and preferably in combination with warranty. Another finding showed that the companies should highlight the environmental aspects as well. It was also seen that communication of the environmental aspects in terms of carbon dioxide could be a great communication tool, however, the comparison of carbon dioxide need to be made carefully since carbon dioxide is very abstract for the consumers. However, our findings suggest that the environmental aspects should not be communicated to the same extent as price and warranty. Hence, the communication ought to take a more rational approach and secondly an emotional approach in its communication strategy to break the barriers for refurbished smartphones. Nevertheless, Fairphone is a company that has been mentioned several times by the respondents as a company using emotional appeals foremost in their marketing, they have a larger awareness than refurbished smartphones. Thus, this could contradict our findings about focusing on rational appeals and the companies should maybe put more emphasis on the emotional appeals and this could be a base for future research. Regarding the naming of refurbished smartphones it is clear that some sort of umbrella name would help limit the consumers’ confusion. Word of mouth was seen to be important for consumers and the companies should work more actively to create a positive word of mouth. Further, it was seen that reviews from other consumers are of
great importance, hence, reviews could be more integrated into the communication. Moreover, to use labelling as a branding tool was also a major finding, some consumers want to show that they are environmentally concerned and the companies may use it as a way to raise awareness about themselves.

7.2 Theoretical Contributions

Due to lack of research about the consumer behaviour of refurbished smartphones we could provide a deeper understanding about the consumer behaviour in regard of refurbished smartphones. Through our qualitative study we could get valuable theoretical insights in consumer behaviour of refurbished products as well as the communication related. As previous research has mainly been quantitative and focusing on the later stages in the consumer decision-making process our findings contribute to a greater understanding of how the consumers arrive to the later stages and how communication can advance the consumer in the decision-making process. First, we have extended Van Weelden et al. (2016) and their model of consumer decision-making process of refurbished smartphones that is based on the consumer decision-making model by Engel et al. (1968). The model was extended through the addition and removing some barriers and benefits while adding the personal information risk. This extension contributes to the existing research by exploring the consumer acceptance in another cultural context.

Further, through our model for communication of refurbished smartphones we could conclude how different communication messages could be used to break the barriers and through which channels these messages should be communicated. This model is built on the information processing model by Scholten (1996) and Flay (1980). Previous studies have not focused on the communication of refurbished products and this should continuously be looked into since the consumer acceptance and barriers are becoming clearer and we must give focus on how we can break these barriers to advance the refurbished smartphone market. This thesis has contributed to a larger understanding about rational and emotional appeals in another context. Thus, this research has developed a deeper understanding of the communication and the role it plays in the refurbished market.

7.3 Practical Implications

The findings of this thesis provide a deeper understanding about the role of communication for the companies who want to market refurbished smartphones. The communication model for refurbished smartphones offers managers a good overview of the different types of messages that can be used to communicate refurbished smartphones. Depending on which direction the companies want to take they could focus more on either rational or emotional appeals. What is clear, however, is that the companies need to make their products into their own brand instead of selling other company's products. Based on the benefits, risks and barriers, the companies can modify their communication strategies and influence the consumers to raise the awareness of refurbished smartphones as our findings show, lack of awareness is the major barrier for purchasing refurbished
smartphones. Our study showed that consumers value the environmental aspects and that companies can use this to their advantage in their communication. The companies must communicate the environmental aspects in a tangible way to make it understandable and relatable consumers.

Original manufacturers have, as our findings show, an advantage of trust compared to the smaller refurbishment companies. Thus, the consumers may choose an original manufacturer instead of a smaller refurbishment company if the original manufacturer would sell refurbished smartphones. Thus, this is a finding that contributes to original manufacturers in developing new strategies to attract new customers through a new business model. Our findings showed that internet based marketing on social media and other forums work most effective to make consumers visit the company’s websites and raise the consumer’s purchase intentions while traditional communications were less effective. It was seen that reviews play an important role for the consumers while looking for smartphones, therefore this should be integrated into the company’s communication. Finally, this study brings up issues about the linear economic systems of today with the production of new smartphones and how the refurbishment companies can challenge this system by working according to a circular economic system where reuse and keeping materials at its highest value as long as possible is central. Furthermore, our study offers a contribution that will hopefully let refurbishment companies grow. Thus, contributing to a more sustainable world due to a lower carbon footprint derived from less smartphone manufacturing.

7.4 Limitations and Future Research

One limitation of our study is that this is a relatively uncommon phenomenon and thus there were difficulties accessing the perceptions of consumers who purchased refurbished smartphones. Therefore, we also included interviews from two respondents who purchased refurbished computers to explain the same phenomena. Therefore future research could be in cooperation with a company to access more respondents who have purchased a specific refurbished product.

Another limitation is that this is a qualitative study and qualitative research is not generalisable in the same away quantitative studies are (Hansson & Grimmer, 2007, pp. 66-67). Therefore, we suggest for further research to quantitatively test our results and models. Future research should look into the communication messages and test which message appeals work best in order to persuade consumers. Furthermore, our results showed that there is a lack of branding of refurbished smartphones which could be a problem. Therefore, further research should look into branding of refurbished smartphones as well as other product groups. Our study did not take the brand of the product into consideration and this could be a focus for future research to look into how different brands are connected to the consumer acceptance of refurbishment. Furthermore, it was clear from the companies that they are struggling with acquiring the products rather than selling refurbished products. Therefore, further research should also
look into the consumer behaviour and the behaviour of companies and organisations and their willingness to sell their computers to the companies who conducts the refurbishment. Another limitation is that this study has been conducted in Sweden. Therefore, it would be beneficial if future research would be conducted in other cultural contexts and possibly a cross-culture study to see if the results are similar or if further differences exist.

7.5 Truth Criteria
It is important to establish methods and terms to assess the quality of a qualitative study (Bryman, 2008, pp. 352-353). Guba and Lincoln (1985) introduced four criteria for evaluation of qualitative research: credibility, transferability, confirmability and dependability. These criteria will be introduced and applied in this section to ensure that the quality of this thesis.

Credibility is how the researcher defines the social reality and whether the research is acceptable for others (Bryman, 2008, p. 354). To create credibility in the results the researcher should follow the regulations and show the findings to the people of the social world that have been studied to confirm that the researcher has understood the reality correctly (Bryman, 2008, pp. 354-355). Saunders et al. (2012, p. 385) claimed that the credibility may be enhanced by providing the respondents with information about the themes prior to the interview. In our study we have been taking several actions to ensure the credibility of our understandings of the responses the interviewees gave us. First, recorded the interviews and took notes simultaneously. Second, we repeated some of the information the respondents had said to make sure we got it right. Third, we gave the respondents some information about our topic beforehand.

The second quality criteria is transferability (Saunders et al., 2012, p. 194) According to Bryman (2012, p. 355) transferability is about if the results holds true in other contexts or situations or the same context at another point of time. As qualitative studies use small groups to be studied in-depth they tend to focus on the unique context or the meaning of the social world that is being examined (Bryman, 2008, p. 355). To ensure the transferability criteria were met, we took some actions in our research. We have tried explain the important parts of the thesis such as the research the question, context and findings as well as possible. We have presented the research guide we used in an appendix so the reader can check the content of the questions asked and the findings for them to interpret. We have also clarified why we chose the respondents we did with theory to give a clear view on our choices throughout the thesis.

Confirmability is when the researcher has the possibility to confirm and strengthen the insight that complete objectivity cannot be achieved (Bryman, 2008, p. 355). Thus, the researcher should be unbiased and not let personal values affect the conclusions of the research (Bryman, 2008, p. 355). As we conducted the research we made sure to be unbiased and refrained from letting prejudices to influence our results. Thus, we used peer-to-peer reviewed articles to avoid any form of bias to as great extent possible.
The fourth quality criteria is dependability (Saunders et al., 2012, p. 194). To conduct and examine research makes it necessary to describe the entire research process (Bryman, 2008, p. 355). It is also required to judge to what extent the different theoretical conclusions are justifiable (Bryman, 2008, p. 355). To ensure dependability we made sure to clarify the problem and define it so it became relevant for the research field. Moreover, we selected a sample we thought was appropriate to answer the research question, thus delivering results that would contribute to theory. We have transcribed all of the interviews as well as taken notes during the interview. In addition, discussions about data analysis method and coding has been conducted and confirmed to be appropriate for this thesis. The truth criteria were taken into considerations during the whole thesis and the decisions that were made in the process. To ensure the quality of this study we have followed the steps mentioned above.
9. Bibliography


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10. Appendices

Appendix 1

Original Interview Guide in Swedish

Rekonditionering och consumer behaviour modellen

1. Hur ofta byter du smartphone? Vad är oftast huvudanledningen till att du byter smartphone?
3. När det kommer till köp av en smartphone köper du helst produkten i en butik eller online?
4. Känner du till rekonditionerade smartphones?
   a. Om ja: kan du definiera rekonditionering/refurbishment?
   b. Om nej: definition av rekonditionering.
5. Vad är ditt (första) intryck av rekonditionerade smartphones?
8. Ser du brist på medvetenhet som en barriär för få folk att köpa rekonditionerade smartphones?
9. Ser du brist på tillgång som en barriär för få folk att köpa rekonditionerade smartphones?
10. Ser du känslan av att köpa nytt som en barriär för få folk att köpa rekonditionerade smartphones?
11. Ser du missuppfattning av rekonditionering som koncept som en barriär för att få folk att köpa rekonditionerade smartphones?

Kommunikation

1. Var stöter du på reklam för smartphones? Vilken reklam påverkar dig mest?
2. Kan du komma ihåg någon reklam om rekonditionerade smartphones? Om ja, vad betonades?
3. Varifrån hämtar du din information när du ska köpa en smartphone?
4. Vilka egenskaper är viktiga att betona vid marknadsföring för rekonditionerade smartphones?
5. Vilken konsumentgrupp borde marknadsföringen fokusera på?
6. Hur stor roll spelar produktdesign för dig när du ska köpa en mobiltelefon?
7. Flera företag som säljer rekonditionerade produkter i Sverige beskriver sina produkter olika, med ord såsom rekonditionerade, begagnade och återanvänd, hur ser du på det?
8. Vad skulle kunna få dig att köpa en rekonditionerad mobiltelefon i framtiden? Om redan köpt: Kan du tänka dig att köpa nya rekonditionerade produkter i framtiden?

Interview Guide Companies Swedish

1. Vilka positiva aspekter ser du med rekonditionerade produkter generellt?
2. Vilka negativa aspekter tror du konsumenter ser med rekonditionerade produkter generellt?
3. Hur mycket av er försäljning är till företag respektive privatkonsumenter?
4. Vilka marknadsföringskanaler använder ni? Vilka lägger ni mest fokus på?
5. Vilka marknadsföringsbudskap använder ni? Vilket av dem är de allra viktigaste?
6. Vilka målgrupper riktar ni er marknadsföring till framförallt?
7. Hur arbetar ni för att skapa en positiv word-of-mouth?
8. Vilka barriärer ser du hos privatkonsumenter som hindrar dem från att köpa rekonditionerade produkter?
9. Hur kan ni använda er av marknadsföring för att bryta de existerande barriärerna?
10. Vad är skillnaden mellan begagnat och rekonditionerat för dig?
11. Hur ser du på att olika företag inom den här branschen använder olika benämningar för rekonditionerade produkter? (Rekonditionerade, återanvänd, begagnat tex)
12. Hur ser du på att ni enbart säljer era produkter online?
13. Hur tror du att marknaden för rekonditionerade produkter för privatkonsumenter kommer utvecklas framöver?

Interview guide consumers English translated from Swedish

Refurbishment and the consumer behaviour model

1. How often do you change smartphone? What is usually the main reason for changing?
2. Can you tell us about your latest smartphone purchase? What characteristics were important for you? Which was the most important?
3. When it comes to purchasing a smartphone do you rather purchase the product at a store or online?
4. Do you know about refurbished smartphones?
   a. If yes: can you define refurbishment?
   b. If no: definition of refurbishment
5. What is your first impression of refurbished smartphones?
6. What risks can you see with refurbished smartphones? What risks can you see with second-hand smartphones? What risks can you see with new smartphones?
7. What benefits can you see with refurbished smartphones? What benefits can you see with second-hand products? What benefits can you see with new products?
8. Do you see lack of awareness as a barrier to get consumers to purchase refurbished smartphones?
9. Do you see lack of availability as a barrier to get consumers to purchase refurbished smartphones?
10. Do you see the thrill of newness as a barrier to get consumers to purchase refurbished smartphones?
11. Do you see misconception of refurbishment as a concept as a barrier to get consumers to purchase refurbished smartphones?

Communication

1. Where do you encounter commercials for smartphones? What commercial affects you most?
2. Can you remember any commercials about refurbished smartphones? If yes, what was emphasised?
3. Where do you get your information when you are about to purchase a smartphone?
4. What characteristics are important to emphasise at commercials for refurbished smartphones?
5. Which customer segment should the marketing be targeted towards?
6. How big role does the product's design matter when you are purchasing a smartphone?
7. Several companies who sell refurbished products in Sweden describes their products differently with words like, refurbished, second-hand and reused, how do you look at it?
8. What could make you purchase a refurbished smartphone in the future? If already bought: Can you imagine to purchase new refurbished products in the future?

Interview Guide Companies translated from Swedish

1. What positive aspects do you see with refurbished products?
2. What negative aspects do you think the consumers see with refurbished products?
3. How much of your sale goes towards companies’ respectively private consumers?
4. What marketing channels do you use? Which do you put most focus on?
5. What marketing message do you use? Which of them is the most important?
6. What consumer segments do you target your commercials towards?
7. How do you work to create a positive word-of-mouth?
8. Which barriers do you see at private consumers that prevent them from purchasing refurbished products?
9. How can you use your marketing to break the existing barriers?
10. What is the difference between second-hand and refurbished for you?
11. What do you think about that different companies within this branch are using different names for refurbished products? (Refurbished, reused and second-hand for example)
12. What do you think about that you only sell your products online?
13. How do you think that the market of refurbished products for private consumers will develop going forward?