Sustainable E-commerce

How to integrate the dimensions of sustainability within the e-commerce sector

Amanda Berglund

Marie Svanteson

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Amanda Berglund

Marie Svanteson

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Abstract

Purpose: The purpose of the study is to investigate how the three dimensions of sustainability (environmental, economic and social) can be integrated within the e-commerce sector to make it more sustainable.

Methods: Firstly, a literary research was conducted to get an overall picture of the chosen topic for the study, which later was elaborated into a literature framework. Secondly, two case studies were conducted in order to collect empirical data. The data was collected through interviews, where a total of three interviews was conducted. The literature framework and the multiple case studies were then cross-analyzed with each other.

Findings: Throughout the thesis several trade-offs regarding the three dimensions of sustainability have been identified and evaluated, and they are all clearly presented in a compiled table. The findings also indicates that the sustainable actions a company may make needs to be thoroughly communicated through their websites since the e-commerce disables the face-to-face interactions. It is of great importance for companies to increase the consumer awareness and knowledge in order to motivate them in to being sustainable.

Theoretical Contribution: This thesis contributes to science by the unification of the e-commerce and the three dimensions of sustainability. The study thus merge science with empirics to create a deeper knowledge and contribute to the body of literature with a compiled table of trade-offs.

Practical Contribution: Practitioners will be enlightened of the importance of all the three dimensions of sustainability, and they will understand the concept and events of trade-offs for sustainability when working within e-commerce. The thesis also provides insight for companies to learn how very important it is with better communication about sustainability factors to its consumers.

Limitations: This study is delimited to the e-commerce connected to business to consumer (B2C). The study will only involve Swedish companies and will not investigate them on an intra-organizational level. They will be treated as "black boxes", as the focus only will be on the three dimensions of sustainability in relation to e-commerce, and not any organizational structures or consumers in detail.

Keywords: E-commerce, sustainability, sustainable e-commerce, case studies

Table of content

Figures

Tables

1   Introduction

This chapter will give an introduction of the problem the study is going to investigate. Based on the formulation of the problem, the purpose has emerged with appurtenant research questions. The scope of the research is then described, as well as the theoretical- and practical contributions and lastly the disposition of the thesis.

Internet is a revolutionary technological development which is widely used and has influenced almost every industry in the world by enabling virtual marketplaces (Nisar & Prabhakar, 2017). The internet has changed the retailing practices in a fundamental way, generating a shift in the behavior of both the businesses and the consumers (Nisar & Prabhakar, 2017). The rapid and continuous growth has led to a significant increase within the electronic commerce (e-commerce), with more and more consumers preferring to trade in the virtual markets (Nisar & Prabhakar, 2017). As customers usually tend to go the stores that are nearby, the e-commerce enables trading world-wide which can be accessed at any time of any day, as well as allowing both buyers and sellers to compare offerings from various cities and countries (Pauwels et al., 2011). Singh (2002) also highlights that e-commerce increases the availability of information, not only for the consumer but also for competitors where they can identify and improve product innovation. Thus, the Internet itself is transforming traditional business rules and constitutes new ways of competition (Nisar & Prabhakar, 2017).

When reaching customers worldwide and extending business overall, companies need to consider if their actions are sustainable or not, in order to preserve the planet. The basic foundation for sustainable development is; "that the needs and impact of the people are balanced with the ecosystem's ability to produce and recover […] while meeting the society's development needs" (Ammenberg & Hjelm, 2013 p.16). If the aspects are not balanced, the development would not be sustainable and thus, there are a lot of negative consequences of the emerging trade that regards the three dimensions of sustainability, i.e. environmental-, economic- and social dimensions, also known as the "triple bottom line" (TBL) (Elkington, 1999).

Accompanied by the growth, the parcels distribution is increasing, resulting in high emissions and even greater traffic congestions in cities. The business to consumer (B2C) distribution accounts for nearly 56% of the total e-commerce shipment just as today (Arnold et al., 2018). Consequently, one can speculate that the percentage will increase due to the fact that more companies are entering the online business (Lee, 2001), which results in increased demand on parcel distributors, resulting in even larger emissions and thus affecting the environmental dimension (Arnold et al., 2018). The sector of e-commerce puts pressure on the logistic service providers (LSPs) to lower their prices at all cost, due to high competition, which in turn contributes to a purely cost-driven business that rejects the evolution of more sustainable distributions (Arnold et al., 2018).

Companies tend to have their focus on the economic dimension as they seek to achieve financial revenues and growth (Bergman & Klefsjö, 2012). Economic sustainability can often be emphasized as a prerequisite for company growth and development (Bergman & Klefsjö, 2012). However, no company nor country as a whole can achieve sustainable economic growth if the

environment is deteriorating, or if prosperity is unfairly distributed (Bergman & Klefsjö, 2012). Therefore, it can be stated that all of the sustainability dimensions are equally important. As the e-commerce is growing rapidly, there is a critical and current need of increased knowledge and involvement of sustainable thinking within the e-commerce on virtual marketplaces.

Studies have been made regarding the environmental side of e-commerce, the economic side and the social side, but within the body of literature, there is a prominent gap concerning the **combination of the three dimensions together in the scope of e-commerce**, and the possible trade-offs companies must make when improving areas within their sustainability. Hence, this study will attempt to explore the e-commerce sector in relation to all the three dimensions of sustainability and contribute to the existing literature within the area.

1.1   Purpose Definition
The purpose of the study is to investigate how the three dimensions of sustainability (environmental, economic and social) can be integrated within the e-commerce sector to make it more sustainable.

1.2   Research Questions
- How are e-commerce companies working with the three dimensions of sustainability today?
- What are the trade-offs between the three dimensions of sustainability from an e-commerce perspective?
- What recommendations can be made to make e-commerce companies more sustainable?

1.3   Scope of the Research
This study is delimited to the e-commerce connected to B2C. The study will only involve Swedish companies and will not investigate them on an intra-organizational level. They will be treated as "black boxes", as the focus only will be on the three dimensions of sustainability in relation to e-commerce, and not any organizational structures or consumers in detail.

1.4   Theoretical Contribution
This thesis contributes to science by the unification of the e-commerce and the three dimensions of sustainability. The study thus merge science with empirics to create a deeper knowledge and contribute to the body of literature with a compiled table of trade-offs, and by high-lightening the importance of communication through a company´s website.

1.5   Practical Contribution
Practitioners will be enlightened of the importance of all the three dimensions of sustainability, and they will understand the concept and events of trade-offs for sustainability when working within e-commerce. The thesis also provides insight for companies to learn how very important it is with better communication about sustainability factors to its consumers.

1.6 Thesis Disposal

Chapter 2: Literature Review - involves the theories and literatures that have been used and investigated in the study. The chapter ends with a summarization model and a conceptual framework.

Chapter 3: Methodology - presents the methods and approaches that have been used in the study, with both theoretical and practical descriptions of each moment. The chapter also provides a methodology model and ends with a critical review.

Chapter 4: Results - presents the empirical data that have been collected for the study.

Chapter 5: Analysis – this chapter involves the analysis of the literature review in relation to the empirical data, with appurtenant texts and a table of trade-offs. The chapter will thus answer the research questions.

Chapter 6: Conclusion - presents the conclusion that have been reached through the study. The chapter will answer the purpose and present both theoretical and practical contributions of the study.

2   Literature Review

In this chapter, the used literatures for the study will be presented. It will start with literature that will enable an understanding and an overall picture of the topic, and then proceed to more in-depth research. Throughout the chapter, models are presented in order to deepen the understanding of the provided literature. In addition, the chapter also concludes with a conceptual framework of the collected literature to demonstrate its relevance.

2.1   Internet and the E-commerce

It is hard to state when the era of e-commerce began. The e-commerce is dependent on and developed through the internet, and the term internet means that a system is used to make a connection between separate networks to other networks of computers worldwide, which can shortly be said as a network of networks (Laudon & Traver, 2008). The actual internet was launched in the 1990's, but the idea and concept was introduced around 1982 (Hussung, 2016). Later in 1991, the National Science Foundation withdrew the prohibition against commercial use of the internet, and thus the World Wide Web (www) was born (Hussung, 2016). The internet made it possible for the e-commerce to rise and evolve, and ever since July 1995 when Amazon sold the first item on the World Wide Web, it has grown with a steady speed (Hussung, 2016).

E-commerce involves all electronic transactions between an organization and any external stakeholder it may deal with, which also includes non-financial transactions such as customer requests for further information or similar pre- and post-sale activities (Chaffey, 2004; Laudon & Traver, 2008). The internet and the e-commerce has changed the traditional marketplaces in form of physical stores into virtual marketspaces with no physical restrictions or geographical limitations (Laudon & Traver, 2008), and are profoundly affecting almost every industry in the world (Deljavan Anvari & Norouzi, 2016). Since it is a new paradigm, some even state that it is imperative to maintain competitiveness (Lee, 2001).

According to Laudon and Traver (2008), there are especially eight features that the internet and the e-commerce technology has enabled, which has revolutionized the way for companies to conduct their businesses:

1. Internet is available and can be accessed at any time of any day, from practically anywhere. This leaves the market open at all time, with no exceptions for holidays or similar occasions, and people can shop from home, from work and even from their cellphones in a car etc.
2. The range that the internet can offer, the crossing of national boundaries, has enabled a global reach for both companies and customers, which can be much more convenient and cost-effective for both involved parties.
3. The e-commerce has given a universal set of technical media standards across the globe, which utilizes the way of doing businesses for all companies when interacting with foreign customers. One similar standard facilitates the understandings, lowers the entry costs, reduces search costs and makes it easier to discover accurate prices and information regarding, for example, delivery terms.

4. The internet has enabled another level of information richness, as it can carry out more complex content of messages and a much greater quantity. However, traditional markets can provide personal, face-to-face service which the internet cannot, but many companies offer online-chatting with salesmen.

5. In comparison to commercial technologies, the internet and e-commerce offer interactivity between the customers and the company. The internet can therefore offer customers service on a global range.

6. The information density which the internet has empowered, can be referred to the total amount and quality of information which now is available to all participants of the market, to very low costs. Information are now therefore very current, accurate and easy accessible for all online participants.

7. E-commerce technologies have permitted a high level of personalization, and letting salesmen target specific marketing messages to individuals who shows tendencies of having similar interest, preferences and past sales history. The technology has also permitted customizations, where companies can make changes in products or services based on prior behavior of the customer.

8. The social technology itself, where people can connect and network with people from everywhere, is very impressive and has enabled a unique way for both companies and consumers to mass-communicate.

2.2 B2C and the E-commerce

E-commerce has a wide reach in almost every industry, where one of the most frequently used business models is the B2C e-commerce (Laudon & Traver, 2008). The B2C model is developed through a website where all the communication and transactions are happening between the company and the consumer right away (Laudon & Traver, 2008). The consumer visits the website, places an order of the desired item and after receiving the order, the company will then ship the goods to the consumer. The companies are aiming to reach the individual consumers online in their everyday life, hence the orders and transaction volumes are not usually that big (Yu et al., 2016). The B2C businesses have grown exponentially since 1995, and is the kind of e-commerce most people are likely to encounter and take part of (Laudon & Traver, 2008). The phenomena of direct selling is furthermore something that the e-commerce market have enabled as it have questioned the distribution channels in areas such as music, images, book selling and software's (Andonova, 2003). The virtual distribution in these areas can be delivered with zero cost, hence the middlemen (physical stores) are threatened by the e-commerce market (Andonova, 2003). However, the non-virtually goods may cost more since the transportations needs to serve numerous buyers with different needs and thus the distribution gain from e-commerce is ambiguous (Andonova, 2003). B2C e-commerce is generally characterized by high investments in both hardware and software, and the need of heavy advertisement to reach and attract customers and the importance of customer care service (Yu et al., 2016).

Online shoppers requires fast and high quality services and to catch the potential customers the companies needs to focus on customer relationship management (Singh, 2002). Online services such as; product specifications, image and video specifications, secure payment systems, delivery information and customer service, are important factors to attract and keep the

customers for further purchases (Singh, 2002). The true value from e-commerce offerings are shown through its services, hence effective customer support and service is vital for the e-commerce companies (Singh, 2002). E-commerce in general does improve some of the purchasing attributes, e.g. the availability and the home delivery, but it also prevent attributes like inspection of the product before purchase and guaranteed secured payment (Andonova, 2003), thus trust is an important and vital element for e-commerce companies to consider (Choi & Mai, 2018).

2.3 Sustainable Development

When reaching customers worldwide and extending business overall, companies need to consider if their actions are sustainable or not in order to preserve the earth (Ammenberg & Hjelm, 2013). A basic foundation for sustainable development is: "that the needs and impact of the people are balanced with the ecosystem's ability to produce and recover […] while meeting the society's development needs" (Ammenberg & Hjelm, 2013 p.16). If the three dimensions of sustainability are not balanced, the development would not be sustainable and thus, there are a lot of negative consequences of the emerging trade that regards the three dimensions of sustainability (Ammenberg & Hjelm, 2013). This definition is structured upon the Brundtland definition of sustainable development that arose during The World Commission on Environment and Development in 1987.

> *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts:*
>
> 1. *the concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given;*
>
> 2. *and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs."*

(WCED, 1987, p.43)

Even though the Brundtland definition is accepted as a starting point, Bratt et al. (2011) argue that the definition is not sufficient as a guide for strategic sustainability. However, what is needed is still undefined and under conflicts (Bratt et al., 2011). At present, the world is still under an unsustainable growth since the impacts of human actions push the world beyond its limits (Bratt et al., 2011). Unfortunately, the fact that sustainable development as a term have no unified definition, makes it hard to state what being sustainable actually means (Morrison-Saunders et al., 2015). Moreover, what it means, depends from which disciplinary the sustainability is studied (Morrison-Saunders et al., 2015). The term sustainability is itself an elusive term (Cox & Pezzullo, 2016), which has given ground for an upcoming problem identified in the study of Aras and Crowther (2009), which is that even though companies claims that they are working with sustainability actions, they do not fully understand the concept.

2.4 Dimensions of Sustainability

In consensus with what is previously written, the sustainable development is often divided into three dimensions; environmental-, economic- and social dimensions (Ammenberg & Hjelm, 2013; Bergman & Klefsjö, 2012; Abraham, 2006), also referred to as the previous mentioned TBL (Elkington, 1999). It is not the dimensions by themselves that result in a better future, it is the interaction and interface between them and the collaboration between countries (Ammenberg & Hjelm, 2013). Therefore, the quote of Hart (as cited in Elkington, 1999 p.71) is well placed.

"Those who think sustainability is only a matter of pollution control are missing the bigger picture"

Thus it is very important that each country develops a clear political agenda regarding sustainable developments including all three dimensions, since each country has its own prerequisites regarding the dimensions (Ammenberg & Hjelm, 2013).

2.4.1 Environmental Dimension

All the three dimensions of sustainability are connected and required to make the world more sustainable (Ammenberg & Hjelm, 2013). However, it must be clarified that the environmental dimension gives the basic conditions for all life on earth and gives the basic frames for the other dimensions (Ammenberg & Hjelm, 2013). With that said, this dimension concerns the external circumstances that affect the environment, the natural resources and the living species (Ammenberg & Hjelm, 2013). Environmental sustainability thus deals with developing production processes and products that do not harm the environment before, during or after usage, thus having a circular mindset (Bergman & Klefsjö, 2012).

2.4.2 Economic Dimension

Ammenberg and Hjelm (2013) describe the economic dimension as the way to be able to economize with the resources, and to create stability and ensure long term economic systems. Many companies focus on short term profit to please the shareholders, while from a sustainable perspective, focus must lie on a long term economic perspective as well (Ammenberg & Hjelm, 2013). As the economy is largely controlled by demand, the new demands on fair-label products force the business and economy to be more environmentally friendly and more sustainable. This is a step in the right direction as the companies now use sustainability as a competitive strategy (Ammenberg & Hjelm, 2013). Therefore, it can be stated that the economic sustainability is created through customer satisfaction and through a functional global market with no trade barriers and effective use of natural resources and systems (Bergman & Klefsjö, 2012).

2.4.3 Social Dimension

The social dimension comprises the aspects of human needs and cultural development, which focuses on equality, even though there is no stated definition for this dimension (Bergman & Klefsjö, 2012). As starting points for the social dimension, it requires that everyone have access to housing, clean water, work and healthcare (Ammenberg & Hjelm, 2013). The societies who possesses those things and have high social capital can more easily change destructive patterns, e.g. today's consumption pattern (Ammenberg & Hjelm, 2013; Bergman & Klefsjö, 2012).

The problem today is that humanity tries to meet its current needs, which could damage the ability of future generations to meet theirs (Elkington, 1999). The problems does not only account for economic prosperity or environmental quality, instead they also raise political and social issues (Elkington, 1999). The great paradox however, is that even though the issues exceeds the capabilities of corporations and business worldwide, they are also the ones who have the resources, motivations, technology, and the global reach to attain sustainability (Elkington, 1999).

2.5   Collaboration

Collaboration is a key element highlighted by Lozano (2007) as the pathway towards a more sustainable society. Since the individualistic thinking and the over exploitation of the natural resources often result in the tragedy of the commons, there must be a shift from individual to collaboration thinking (Lozano, 2007). He also emphasize that the tragedy of the commons can explain many of the current problems captured in the sustainability challenge. Whereas economic growth can create a loop that requires more and more natural resources e.g. oil, which in the end increase the greenhouse emissions, and consequently affect the whole world (the commons). The perfect condition would be to engage the world and its countries in collaborative efforts to obtain optimal economic-ecologic-social solutions to reduce the emissions and its negative impact on the planet. Lozano (2007) states that such collaborative approaches would benefit all citizens and further lead to a more sustainable future.

2.6   Consumer Knowledge

One additional factor companies needs to take into account is the fact that the consumer awareness and concern regarding the environment is increasing as they have realized the impact of their purchasing behavior (Laroche et al., 2001). More and more consumers are adapting to consider environmental issues when shopping, e.g. checking if the wrapping on a product is of recycled material, buying more ecologically compatible products, and more consumers overall have shown the willingness to pay a higher price for an environmentally friendly product (Laroche et al., 2001). Environmentally friendly or "green" products are descriptive terms of any product, service or policy that does not cause any, or causes minimal, harm to the nature and the environment (Kianpour et al., 2013). Due to the risen concerns, companies are trying to adopt to a more environmentally friendly approach (Kianpour et al., 2013). For instance: companies are producing more products of material with respect for the environment, vendors are reducing the amount of plastic bags and non-environmentally friendly packaging attributes, and companies allocates budgets to improve the work further (Kianpour et al., 2013). It is of great importance for companies to inform, communicate and educate the consumers why it is convenient to buy the environmentally friendly products, and change the consumer perceptions (Laroche et al., 2001). Not only to increase knowledge and attract consumers, but to make consumers see that protecting the environment is not solely the companies responsibility, that the actions of each and every individual also makes a difference (Laroche et al., 2001)

2.7   E-commerce and Sustainability

Considering the rapid and continuous growth of the e-commerce, and the visibility it offers to the consumers and society as a whole, companies work and progress within the sustainable development, and the follow up of sustainable regulations are becoming increasingly important

as it is getting more attention (Macchion et al., 2017). A company cannot improve only one individual area, it has to take the whole supply chain into account, and each one of the three dimensions of sustainability (Macchion et al., 2017; Mangiaracina et al., 2015). By involving the people and the planet in a rightful balance with the profits, a company may create a more sustainable outcome, which can enhance a firm's overall performance (Shao & Liu, 2012).

There is no universal, standard way of conducting such improvements or how to take it properly into the business strategy, where it gets even more difficult when involving companies from different countries who might have different regulations (Zhu et al., 2012). This factor can negatively affect the work with merging the e-commerce and the sustainability dimensions. This is due to the aspect of countries having different international sustainability laws, of which companies have to adapt to them all in order to sell their products globally (Zhu et al., 2012). If there are too many regulations and laws, with too wide of a spread, companies are most likely to enforce the minimum level of compliance since it otherwise would require much more work and commitment (Zhu et al., 2012). However, there are considerable advantages which can be obtained by working effectively to improve a company's sustainability. It is considered to be a key factor of improving a firm's operations, enhancing strategic growth, increasing competitive advantage and helps to deliver sustainable values to the society (Mangiaracina et al., 2015).

2.7.1 E-commerce and the Environmental Sustainability

There are debates whether the e-commerce has positive or negative effects on the three dimensions of sustainability, and especially the environmental one. There are studies made within the field of transportation connected to the e-commerce; the congestion, combustion and emissions, where both positive and negative effects have been detected (Carrillo et al., 2014; McLeod et al., 2006). It can first be stated that in line with the growth the online purchasing, the number of shipments and transportations has been increased, particularly in the van traffic (Mangiaracina et al., 2015). However, this does not necessarily have to be negative. Studies have shown that due to the home deliveries, the online shopping method has reduced the amount of individual consumer trips and thus its emissions, which is a positive and an essential aspect to take into account (Carrillo et al., 2014). The negative effects are connected to the inefficient deliveries that might occur when, for example, an individual are ordering different items from various channels, which then will be sent with different deliveries to the same location (Mangiaracina et al., 2015). When they are not combined with each other, it gives an unnecessary increased number of transportations, which can be even further deteriorated if the consumer then wishes to return the items to the company as well (Mangiaracina et al., 2015; van Loon et al., 2015). This is also coherent with the global width e-commerce has enabled, since consumers now can order what they want from practically anywhere, the transportation routes and number of transshipments has increased and thus the appurtenant greenhouse emissions (Nisar & Prabhakar, 2017).

Moreover, Arnold et al. (2018) emphasize that the growth in parcel distribution, mainly due to the increase in the e-commerce sector, affects the quality of life in cities in a negative manner. As the transportation increases, so does the emission and the transportation within cities, resulting in less livable cities and thus affecting the overall environmental dimension (Arnold et al., 2018) and further also the social dimension since it affect the people living there. Even

so, there is a great pressure from the e-commerce companies to lower the transportation cost and also to decrease the delivery time (Arnold et al., 2018). Hence, the last mile delivery is a cost-driven business that hamper the development of more sustainable distribution solutions (Arnold et al., 2018). This could however be further enhanced if, in consensus with Lozano (2007), a collaboration is emerging, especially between the logistic service providers (LSP's), to create a better plan for the last mile deliveries where the use of the economies-of-scale can improve both costs and emission (Arnold et al., 2018).

One action companies should take into consideration is the usage of alternative vehicles. By converting fleets of conventional vans and trucks, to electric and hybrid vehicles for home deliveries could contribute majorly to the reduction of CO2 emissions (Mangiaracina et al., 2015). There are some e-commerce companies that have taken these "green initiatives" in order to improve their business within this area (Mangiaracina et al., 2015). For example, the retailer company called Sainsbury's transformed their delivery fleet into electric vans, and another example are companies in China that uses electric bicycles for their last-mile deliveries (Mangiaracina et al., 2015). There are even more creative ways arising, which is Amazon's plan of having drones deliver smaller orders to their customers (Mangiaracina et al., 2015). There are however less drastic measures that can be taken as well.

Another major contributor to the negative influence on the environmental dimension is the packaging part within the e-commerce (van Loon et al., 2015). Due to the individual orders, the items cannot be packed together and thus needs one individual package, which increases the amount and types of packages used (van Loon et al., 2015; Mangiaracina et al., 2015). Furthermore, some of the larger players within the market often distribute their products from more than one supply point, whereas they sometimes are splitting large orders from one single consumer into several packages, and thus removing the possible environmental benefit of maximising packages (van Loon et al., 2015).

2.7.2   E-commerce and the Economic Sustainability

The economic benefits and drivers for e-commerce are attractive and convincing for probably all companies as it aims to reduce costs and increase profits (Mangiaracina et al., 2015), leading to improvements in operational- and innovation performance, the encouragement of creating new ways of conducting businesses, the achievement of differentiation (Theyel & Hofmann, 2015), improvements in efficiency and asset utilization, reductions in total time for order fulfillment and faster time to market (Deljavan Anvari & Norouzi, 2016). An additional factor the e-commerce positively contributes to is a firm's flexibility, in the context of responding to consumer requirements (Li et al., 2009), and thus enhancing the level of customer service (Deljavan Anvari & Norouzi, 2016).

However, employing e-business processes does not always have to lead to better financial performance, especially during the launch (Yang et al., 2016). Due to the openness of virtual marketplaces, there is a very competitive climate, hence the majority of e-commerce firms suffer from initial losses or even diminishing financial performance when partaking in the online world (Yang et al., 2016). When seen from this perspective, the application of internet and new technology is both a huge opportunity for firms, as well as it is a big challenge (Kambil, 1995). This has its effects on the innovation performance as well, due to the competitive

climate, there is a continuous need of new products and offerings, and not only the providence of standard, traditional products (Macchion et al., 2017). Due to the many competitors available online, the pressure is higher. The level of difficulty gets even higher for entrepreneurs who enters the virtual market when considering the fact that most consumers buys products from brands they are familiar with (Macchion et al., 2017), whereas it can be said that it is vital for e-commerce companies to establish and maintain consumer loyalty. If there is a lack of trust for the company, consumers tend to abandon their initiated shopping carts (Sullivan & Kim, 2018).

The e-commerce as a whole has shown positive results regarding economic factors on three levels; for enterprises, sectors and for countries (Deljavan Anvari & Norouzi, 2016). Because of the increased value added to output that the e-commerce has enabled, it will ultimately lead to economic growth, growth in labor productivity, increased profitability and positive effect on welfare of the consumers (Deljavan Anvari & Norouzi, 2016).

2.7.3   E-commerce and the Social Sustainability

The information and communication technologies (ICTs) of today has enabled better communication and knowledge transfer for companies on a global level, enabling expanded market scopes on the e-commerce markets as it gives a wider access to scattered consumers around the globe (Cui et al., 2017). Through this, e-commerce has helped to improve something called social innovation (Cui et al., 2017). Pol and Ville (2009), and Phills et al. (2008), elucidates the terms that describe innovative activities and services are connected and aims to meet a social need, improve life conditions for individuals or to meet the basic needs of a society as a whole. The appurtenant goals of which are including justice, health aspects, environmental actions, cultural preservations, improvement of education conditions and the eradication of poverty (Pol & Ville, 2009; Phills et al., 2008). An example of these social innovations that were possible through the e-commerce, are the facilities that were made in rural villages in China, which enabled a way for the villagers to sell their products to consumers located both in- and outside of the local boundaries (Cui et al., 2017). This was not possible before the era of e-commerce, and has affected these rural villages and the habitants revenues positively and thus contributed to the local economic development, with results that have alleviated poverty (Cui et al., 2017).

The global reach of the advanced technology does not only favor the consumer by broadening the offerings of products and services, it creates a link and integration between the developed and the developing countries around the world and thus making important improvements within the social dimension of sustainability (Hossain, 2002). Although on the contrary, Lozano (2007) states that the growth in both population and global markets, as well as the individualistic behavior, not only affect the natural resources by themselves, it also affect the gap in society. Simultaneously, this have thus increased the economic disparity between the richest and the poorest within the nations as well as between nations overall, since some are using more resources than others, even though it affects everyone (Lozano, 2007).

Another side of this is that even if e-commerce are broadening the market for people in both developed and developing countries, many debates are concerning if e-commerce activities are instead leading to job losses and labor substitution (Autor, 2013). These debates are however

mostly regarding the digitalization and the further developments of ICTs, and are not fully related to the e-commerce. The job losses that the e-commerce are supposedly to be responsible for, are the potential replacement of traditional, physical stores with virtual ones, thus leading to job losses for white- (administrative) and pink collar (service-oriented) labors (Biagi & Falk, 2017). However, on the other hand, e-commerce creates job opportunities for entrepreneurs and people with digital literacy (Biagi & Falk, 2017).

2.7.4 Summarization

The e-commerce has had both positive and negative effects on the dimensions of sustainability and to make it even more clear, the pros (+) and cons (-) have been listed in the table below (Table 1). The model represents a shorter summary of the previous written literatures, and is put together to create visibility and understanding of the appurtenant effects of e-commerce.

Table 1. Pros and cons with e-commerce within each dimension of sustainability.

E-commerce and the three dimensions of sustainability		
Environmental Sustainability	+	• Reductions in individual consumer travels and its emissions (Carrillo et al., 2014) • Companies changes transportation fleets into alternate vehicles (Mangiaracina et al., 2015)
	-	• Increased number of shipments and transportations (Nisar & Prabhakar, 2017) • Increases greenhouse emissions (Carillo et al., 2014) • Increased amount and types of packaging (van Loon et al., 2015; Mangiaracina et al., 2015) • Removing possibilities of maximizing packages (van Loon et al., 2015) • Companies enforces minimum compliance to laws and regulations (Zhu et al., 2012)
Economic Sustainability	+	• Reduces cost and increases profits (Mangiaracina et al., 2015) • Economic growth (Deljavan Anvari & Norouzi, 2016) • Operational and innovation performance improvement (Theyel & Hofmann, 2015) • Increased flexibility regarding customer requirements (Li et al., 2009) • Global reach of customers and other companies (Laudon & Traver, 2008) • Positive effect on welfare of the consumer (Deljavan Anvari & Norouzi, 2016) • Growth in labor productivity (Deljavan Anvari & Norouzi, 2016)
	-	• No guarantee in financial performance (Yang et al., 2016) • Can lead to initial or devastating losses (Yang et al., 2016) • High competitiveness and high pressure (Macchion et al., 2017) • Vital to gain consumer loyalty, which can be difficult (Sullivan & Kim, 2018)
Social Sustainability	+	• Global communication and knowledge transfer (Cui et al., 2017) • Enables and making companies make more social innovations (Cui et al., 2017) • Creates link between developed and developing countries (Hossain, 2002) • Creates job opportunities for entrepreneurs and people with digital literacy (Biagi & Falk, 2017)
	-	• Increase in individualistic resource consumption behavior (Lozano, 2007) • Increases economic disparity (Lozano, 2007) • Job losses for white- and pink-collar labors (Biagi & Falk, 2017) • No face-to-face interaction with consumers (Andonova, 2003)

2.8 Trade-off

In order for companies to become more sustainable, there are possible changes that might be needed to be made. However, since most of the processes and operations within a company are connected to each other, companies sometimes has to make a "trade-off" between alternatives and outcomes before initiating particular changes. As described by Slack et al. (2007), companies needs to consider and evaluate the possibility that by improving the performance of one objective, it may hamper the performance of another in order to succeed and thus make a trade-off, since "there is no such thing as a free lunch" (Slack et al., 2007, p. 77). This is further illustrated with Figure 1, where it can be seen how altering in process A will automatically affect process B:
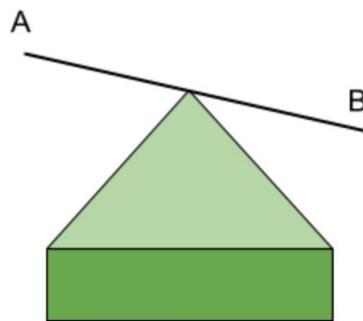
Figure 1. Pivot and Function Trade-Off model by Slack (1991)

A trade-off does not have to involve only two aspects either. An example can be made from a study by Park et al. (2012), where they tackle the problem of deciding how to transform a company's transportation mode into becoming more environmentally friendly. First, they identified the three most important decision-making attributes within this area; cost, CO_2 emissions and time, and then studied the relationship between them and thus the possible trade-offs. Park et al. (2012) could later conclude that the most environmentally friendly transportation alternatives were either the most time consuming one, or was going to be very costly. However, the most time consuming one could also be the less costly one. In this case, the trade-off is therefore that in order to change into a more environmentally friendly transportation mode, the company has to either invest money into it or be willing to sacrifice time to it, e.g. longer delivery- or lead times (Park et al., 2012). These kinds of trade-offs are very important to take into consideration before altering with a process or operation (Park et al., 2012).

2.9 Conceptual Framework

Figure 2 represent the conceptual framework of this thesis and provides a view of each of the important concepts investigated, while it also visualize how the literature will help answering the research questions (RQ's). To answer RQ1, literature regarding e-commerce in the field of B2C will be investigated through each of the three dimensions. Later, the RQ2 focuses on the trade-offs in the field of sustainability with the delimitation to the e-commerce and B2C. Lastly, RQ3 looks at the combinations of the previous RQ's and tries to cohere the outcomes into recommendations to make e-commerce more sustainable.

Figure 2. Conceptual framework

3 Methodology

In this chapter the coherence as well as the logic of the research process will be presented, including an in-depth description of the methods used to answer the purpose and the research questions. In order to create understanding of the choice of methods, a theoretical background will be given with and a practical description of the approach. A critical review of these methods are then provided, where reliability and validity are discussed.

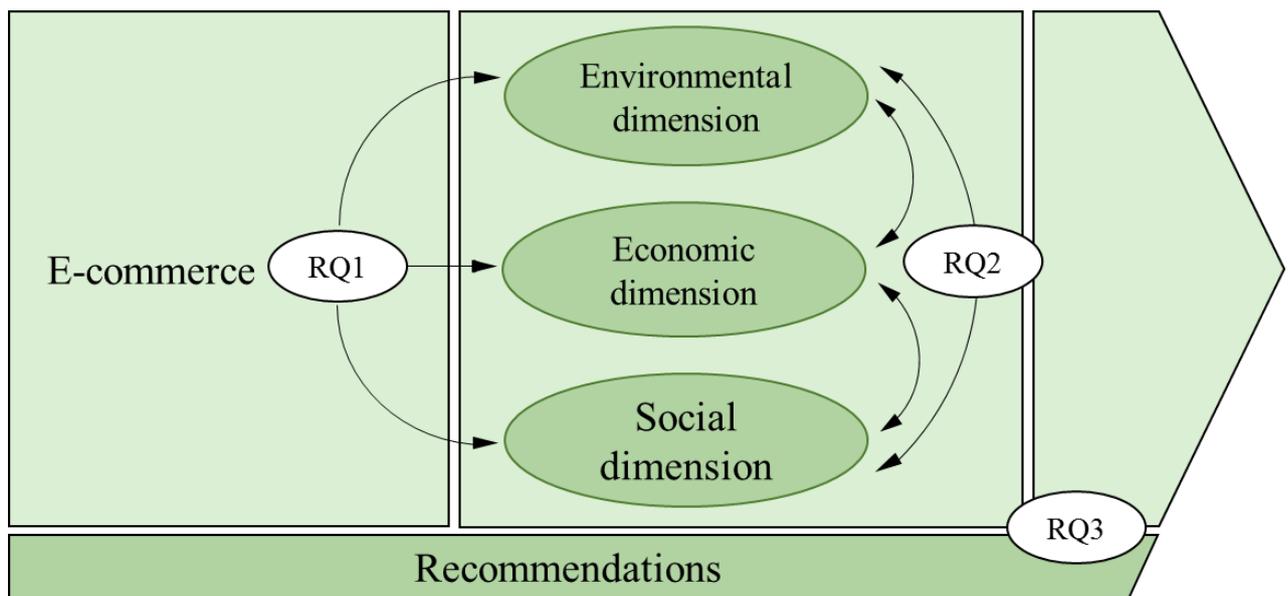The lack of comprehensive literature under the banner of "sustainable e-commerce" became evident through a research in databases such as Discovery, Emerald, Google Scholar and Science Direct in the middle of March 2018. It showed that the publications were few, but have been exponential in the 21 century, whereas e-commerce have also grown rapidly. However, the literature did not address all three dimensions of sustainability all together. The aim was to understand the landscape of the sector of e-commerce with the sustainability dimension separately on one hand, and the dimension integrated on the other. To do so, the research mainly included studying academic journals and published books.

3.1 Research Approach

When organizing for a research study, the first methodological choice that has to be made is whether the study is of exploratory, explanatory or of a descriptive character (Saunders et al., 2016). According to Saunders et al. (2016), a research study is either going to test existing theory or to develop new theory. If the study is adopting a clear theoretical position that will be tested through the collection of data, the study will be driven by theory and thus have a deductive approach on the matter (Saunders et al., 2016). On the contrary, if the study aims to explore a chosen topic, and wishes to develop a theoretical explanation with the collection and analysis of data, the research study will be driven by the data and thus have an inductive approach (Saunders et al., 2016) see Figure 3. Due to the purpose of this research study, which aims to explore existing theory but not test it, it will have a deductive approach with inductive elements. It will be deductive in terms of the collection of previous research, which formed the research questions and the base for the collection of empirics. However, it will have inductive elements because the aim is to explore and develop theoretical explanations with the collected data.
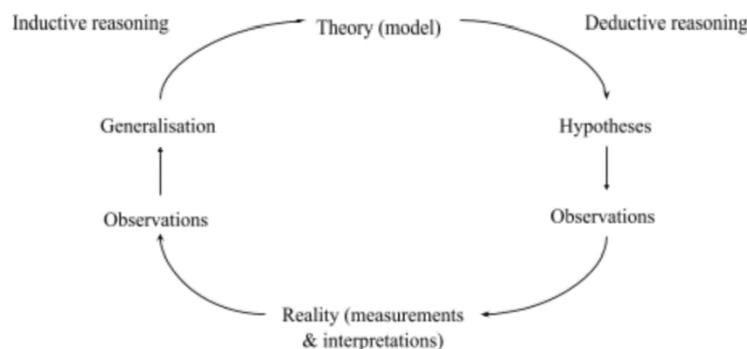

Figure 3. Illustration of inductive- and deductive reasoning (Eriksson & Widersheim-Paul, 1993)

3.2   Research Strategy

When conducting a scientific investigation it may be appropriate and useful to apply the case study method (Ejvegård, 2003), since a case study method allows the researcher to investigate, yet still maintain the whole and meaningful in real events, e.g. organisation and management processes, international relationships and maturity and growth within an chosen industry (Yin, 2006). As well as for a qualitative strategy, a case study is characterized as an examination of a particular phenomenon and emphasizes that the investigation is supposed to be of the phenomenon in its realistic environment and/or context (Yin, 2006). Case studies are often used when the problem is considered as complex, whereas a case study seeks to find explanations, understandings or descriptions (Backman, 2008), and can extract a depth within the investigation (Biggam, 2016). Yin (2009) adds that a unique distinction that favor for a case study, is the ability to deal with a large number of evidence, e.g. documents, interviews etc. Due to the exploratory character of this study's topic and the strengths with this method, the case study approach seemed like the most appropriate and strategic choice.

3.2.1   Case Selection and Design

When selected the method of case study, the choice of whether to do a multiple- or single case study was needed to be determined. In favor of a single case study is the statement of Yin (2009), whereas studying the same thing at different points truly shows how different conditions changes over time or how different scenarios affect the case. On the contrary, a multiple case study is often more robust and more compelling since it have multiple sources of data collection (Yin, 2009). The logic beneath the choice of multiple-case studies is to either have a literal replication (whereas the same results are expected) or to have a theoretical replication (where the results are contradictory) (Yin, 2009). Since this study focuses on e-commerce and sustainability, a multiple case study with the logic of a literal replication were chosen. The unit of analysis were selected to e-commerce companies with the selection criteria's presented in the table below.

Table 2. Case company selection criteria's

Selection Criteria	Company A	Company B	Company C	Company D
E-commerce	X	X	X	X
Accessability	X	X		
Expected to work towards sustainability	X	X	X	X

Due to the given timeframe of this study, only four companies were approached. The two companies that matches the criteria's (Company A and B) are both companies that are currently working with e-commerce and are well known in the retail businesses. The other two companies that were approached (Company C and D) lacked the accessibility and hence were not selected. The last criteria is partly matching with Company A, but due to great enthusiasm in the area when asked for participation, they are fulfilling it. The anonymity of all of the companies will be applied in order to not draw focus from the actual purpose of this thesis. Moreover, both companies will be further explained in Chapter 3, Results. The differentiation in the selection

process is, however, that Company A only is active in the virtual market, while Company B have both physical and virtual stores, but the results are predicted to be similar, hence the literal replication logic is applied.

3.3 Data Collection

3.3.1 Interviews

Within an exploratory study where there is a desire for depth, it is most suitable to use the qualitative method of interviews, thus it was chosen in this thesis. The type of interviews that were conducted in this study were semi-structured ones, which Bell and Waters (2016) argue is preferable when the researcher wants explanative answers. Alvehus (2013) describes that a semi-structured interview starts with a form which contains a couple of predefined open questions, and centered themes which the conversation is supposed to circle around. It directs the interview to a desired area, but leaves it open for further follow-up questions or conversations that might emerge during the interview (Alvehus, 2013). Thus the topic that the interviews are circling around are (1) e-commerce and (2) sustainability. The motive behind the choice of semi-structured interviews for this study, was the goal of getting an in-depth understanding and overall picture of our chosen topics.

3.3.2 Interview Realization

The target respondents within the case companies were selected through the following selection criteria's (see table 3) and through contact with the targeted respondents it was set that three interviewees were to be conducted in order to gain sufficient data. The last respondent (e-commerce manager) showed interest, but did not have the time to participate, thus, two interviews were conducted at Company A and one at Company B. The difference in positions regards to the size of the company. Company A is a smaller company with less positions while Company B is bigger and have different departments. The approached respondent were the ones who possessed knowledge in the area.

Table 3. Respondent selection criteria's

Selection Criteria	Company A CEO	Company A HR manager	Company B Sustainability manager	Company B E-commerce manager
Knowledge in the area	X	X	X	X
Availiability	X	X	X	
Accessability	X	X	X	X

Before conducting the interviews, the purpose of the study and the aim with the interviews were explained for the respondents so they felt aware and comfortable with the subject and the questions. According to Kvale and Brinkmann (2009) and Saunders et al. (2016), this is an important measure to take in order to show respect, understanding and interest for the respondents, which will in turn generate trust between the actors and thus the respondents may speak more freely. Therefore, the prepared questions for the interviews were sent to each of the respondents in advance (see Appendix 1). Apart from the English nature of this thesis, the interviews were conducted in Swedish. This is motivated by the fact that Swedish is the native

language for the interviewer as well as for the respondents, hence no language difficulties or misinterpretations arose during the interviews.

The interviews conducted with Company A were both made at the company. In the beginning of the two interviews, the respondents were asked if it was acceptable to record it to ensure that the rightful material could be collected. This is important since the exact wording can be transcribed (Alvehus, 2013), and thus the focus was on the respondent and on asking supplementary questions, instead of taking exact notes. However, small notes were taken during the interviews anyway, and both interviews lasted around 30 minutes (see Table 4).

Table 4. Interview dates and durations

Interviews	Company	Respondent	Date	Duration
Interview 1	Company B	Sustainability Manager	2018-05-02	36 minutes
Interview 2	Company A	CEO	2018-05-04	34 minutes
Interview 3	Company A	HR Manager	2018-05-04	26 minutes

The interview with Company B was conducted over the telephone due to the geographical spread of the respondent and the interviewer. The advantages that are connected with interviews conducted over the telephone are: access, speed and lowered cost - due to the fact that traveling may be both cost and time consuming (Saunders et al., 2016). Telephone-interview is hence very effective and often more convenient for the involved actors (Saunders et al., 2016). The disadvantages is, however, the fact that it is more difficult to establish trust and personal connection over the telephone, which might result in less participation in discussions and more lean answers if the respondent is not comfortable enough (Saunders et al., 2016). Moreover, this interview were prepared in advance by email, e.g. asking if it was acceptable to record the interview and as a supplement the company also got the chance to prepare for and review the questions before the interview. The duration of the interview however, lasted for 36 minutes which is illustrated in Table 4.

3.3.3 Documentation

Additionally, to strengthen the data collection, multiple sources of evidence is recommended by Yin (2009), whereas it is often result in a more convincing and accurate conclusion. Which is why data also were collected from the companies websites and Company B's sustainability report and sustainability policy report. This enabled the possibility to address a broader range of understanding and the possibility to cross check the data from the interviews with what is written on their websites and in the reports. When using multiple evidence collection as such, it is called triangulation (Remenyi et al., 1998). It is a way of ensuring consistency (Gibbs, 2007).

3.4 Data Analysis

All of the interviews were recorded and fully transcribed (yet in Swedish) as advised by Yin (2009) and Gibbs (2007), so others can use the data and/or reanalyze it. Since the units of analysis was the two e-commerce companies, the chosen analytical technique were the pattern

matching technique, whereas the patterns were divided into dependent variables of the study (shown below), coherent with the research questions.

- How they work with e-commerce
- How they work with the environmental dimension of sustainability
- How they work with the economic dimension of sustainability
- How they work with the social dimension of sustainability

First, the result of each company with coherent interview were separately analyzed and categorized into the variables. Secondly, in recommendations from Yin (2009) all the data were cross-analyzed to strengthen the robustness of the findings. Thirdly, triangulation with website information (and for Company B: data from the sustainability report and from the sustainability policy report), the literature review and the interviews were used in the data analysis giving multiple sources of evidence as well as several angels of analysis. To be able to visualize the analysis in a correct manner a model is provided in the analysis section, which is a compilation of both empirics and literature.

3.5 Methodology Model

Following model (Figure 4) is provided in order to summarize the methodology of the thesis. The study started with a literary research in order to get an overall picture over the chosen topic for the study. The research revealed a theoretical gap, which was investigated and thus the purpose of the study emerged, with appurtenant research questions. After the purpose was established, a literature framework was developed, which helped to form the questions for the interviews within the case studies. When the data from the case studies were collected, the empirical evidence was cross-analyzed with the literature framework within the analysis. Through the analysis, the study then reached a conclusion.
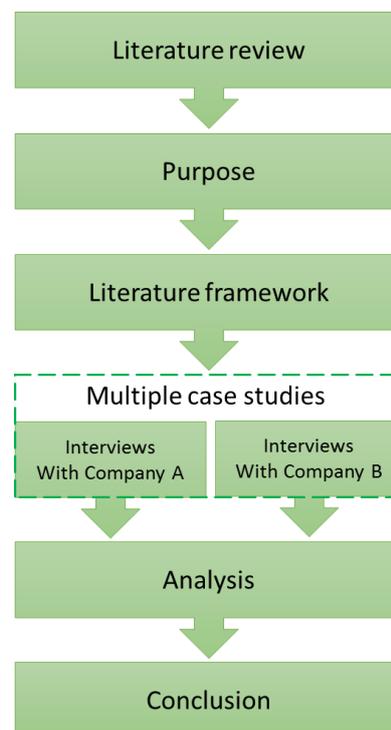

Figure 4. Methodology model

19

3.6 Critical Review of Methodology

3.6.1 Validity

The validity discussion will follow Yin's (2009) structure of validity whereas he divide it into three subheadings: construct validity, internal validity and external validity. Construct validity refers to the measures of the case study. Jakobsson (2011) and Eliasson (2010) simply calls it validity but define it as if the research actually measures what it aims to measure. The multiple sources of evidence in this study, further represent a tactic that increases the so called construct validity (Yin, 2009). As multiple sources of evidence - triangulation - provides multiple measures of the same unit of analysis, it increases the overall quality of the study (Yin, 2009). Jakobsson (2011) moreover explains that the construct validity refers to how well the questions are constructed and answered in relation to the underlying theory. Which in this study is shown by the logical reasoning of both research questions and methods. In order to increase the construct validity, the interview questions were therefore reviewed by the supervisor whereas he helped to clarify some obscurity before the interviews were conducted and to ensure that they were in line with the research questions and the purpose of the thesis. In regards to the internal validity, Yin (2009) emphasize that it mainly concern explanatory case studies, when one is trying to explain why X leads to Y. Since this study is of exploratory nature, the internal validity is hence, overlooked.

External validity on the other hand refers to if the study's findings can be generalized to a wider universe or not, and thus constitute a major barrier for case studies since they often are too focused and do not have the sufficient breadth (Yin, 2009; Remenyi et al., 1998). The literal replication logic that were used in this study were used to strengthen the external validity as advised by Yin (2009). The authors would not attempt to argue that the findings are generalizable in the way a large-scale survey would, but the companies are representative as e-commerce companies, since they cover the areas investigated and because they are very successful in their area of expertise and retailing. However, the two case companies are operating in different manners, one is purely e-commerce driven and the other one has both virtual and physical stores. This affected the results and the generalizability, as the empirical data did not contribute with sufficient breadth or depth. To increase the external validity, future research needs to involve more companies with more similarities and enhanced selection criteria's.

Respondent validation is a further extent to the validity that Gibbs (2007) emphasize as important. Since verbal evidence as well as notes were taken during the interviews, and additionally that they were fully transcripted. The respondent got the opportunity to review the transcriptions and the draft so there were no bias in the information.

3.6.2 Reliability

Additional to the validity, researchers needs to consider the reliability of the research since it concerns the degree of trustworthiness (Jakobsson 2011; Eliasson 2010). The degree of reliability further determines if the result is repeatable or not and how reliable it is (Gibbs, 2007). To enhance trustworthiness, the methodology needs to be explicitly described (Bryman & Bell, 2015) so if the study would be done again, the later researcher should arrive at the same results and conclusions (Yin, 2009.) Where is why, the methodology is richly declared. Yin

(2009) further emphasize that the goal of reliability is to minimize the faults or biases in a research. Where is why the collected data were double-checked for accuracy, not only by the respondents, but by both of the authors as well, as advised by Gibbs (2007). As there were two authors in this study, both of them were engaged in the analysis simultaneously and according to Gibbs (2007), this is something that strengthen the reliability further, even though it requires strict cooperation's between the authors. In order for a later researcher to conduct the exact same case study over again, the interview questions is therefore provided in the Appendix 1. The answers to the questions are however archived but not provided in the thesis. If a later researcher want to access them, they have to contact the researchers of this thesis.

Due to the length of the interviews, and the fact that there were only three interviews conducted, the reliability can be questioned. Additionally, the interviews were conducted in different ways which could have hampered the reliability even further, e.g. in terms of personal interactions. It has affected the results since the data were not collected under the same prerequisites and thus makes it difficult to rightfully compare them. Another factor that has effected the comparison of the results, is that the two case companies are operating with different kinds of products, and do not have the same size. However, they are both active in the retailing businesses which strengthen the reliability, and further, the interviews were conducted with approximately the same questions (see Appendix 1) in order to make the results more comparable.

3.6.3   Ethics and the Social Aspect

Confidentiality is a critical manner when it comes to ethics, and according to Remenyi et al. (1998), business people are generally more open to discuss their affairs with degree candidates rather than with other people and thus it is of great importance to respect the confidentiality of the informant. As the researchers asked questions about how the respondents work with their sustainability questions, the answers received may have been of competitive sensitivity, and thus it stressed the need of confidentiality.

The respondents were given assurances of the information they gave whereas it according to Biggam (2016) and Remenyi et al. (1998) is necessary for the respondents to be aware of why the data is collected and how it should be used. Prior to the publication of the thesis, the respondents were given the opportunity to review and comment on the transcriptions and final report before submission. In order to prevent ethical issues all interviewees were treated in the best way possible, given comprehensive information of purpose before the interview as well as feedback afterwards if wanted. The four basic ethical principles (1) Respect and integrity (2) the principle of beneficence (3) do no harm and (4) the principle of justice, were all considered throughout the study to ensure a good perception of the involved actors.

As this thesis focuses on the sustainability of e-commerce, it is a relevant topic for the society whereas it hopefully can be used to improve the processes of today's market. By investigating in this area the aim is to attract the reader and the e-commerce companies in order for them to enhance, evaluate or at least improve their mind-set regarding the subject. With the results, the hope is to make the society better by making the e-commerce companies focus on their business ideas as well as all three dimensions of sustainability in order to sustain the planet for future generations. Thus, the conclusion incorporates ethical and societal aspects of the research.

4 Results

This chapter will present the collected data from the conducted research. Each of the companies will have a short description, followed by a summary of the important content extracted from the interviews and the company websites, regarding each of the dimensions of sustainability.

4.1 Company A and the E-commerce

Company A is an all e-commerce Swedish retailer with over 20.000 different products, who was launched on the internet in the fall and became prominent in 2009, with a current staff of 35 people. The company is mainly active in Sweden but has in recent years expanded to Norway and Denmark, with additional plans on expanding to Finland. Company A are only available in the virtual marketplaces, as it does not have any physical stores. They only have one warehouse, which is however customer-accessible, where customers in the nearby area can go and make their purchase on the spot or pick up their ordered goods personally. The discussion concerning the establishment of physical stores has been of interest for a long time, but a date has not been settled. If they were to be built, the company has a thought of creating "concept stores", or experiential stores. Customers are supposed to come into the store and experience the products, not only picking them of shelves. Company A does neither have a stated vision for the company nor a long term strategy, but they have the wish to become the biggest actor in the field of parties and masquerade in the North.

A factor the company heavily cares about and that has enabled trust between the consumers and the company, is their fast and accurate deliveries. Their consumers can lay an order and get the products the next day if they are located in the surrounding counties. If not, it will be a maximum of three days. The fast deliveries is of importance for the company's image, and they offer various ways of delivery, e.g. to a nearby post office, home delivery at day or by night or to a chosen company. They do not however, offer a more environmentally friendly alternative of deliveries or transportations

4.2 Work within Sustainability

Company A have not defined what sustainability means for them, as they neither have a sustainability or CSR report stated, but the company is however taking some actions within the areas of sustainability since consumers interest in the matter is increasing, and have put pressure on the company.

4.2.1 Environmental Sustainability

Due to customers' requests of more sustainable products, Company A have extended their product portfolio so they can offer alternatives of the same products, with e.g. one "budget" version and one "real" version. The difference lies in quality, different materials and other means. The different material have different effects on the environment, e.g. polyester involves more plastic substances, which the cotton does not. The different materials in relation to environmental effects is however not described in the product description on the website, only in terms of quality. Nevertheless, the company is dependent on the supplier and thus their products in most cases, and due to the smaller size of the Company A, they can make few demands.

Within the area of packaging, the company used to re-use their packages and then send them out to the consumers again to save material. That was unfortunately not so popular with the consumers, and hence they had to stop. The company therefore made a REPA-agreement with a packaging company that they sell their old packages to and later buys it back, thus the company is using recycled material for their packages. For the stuffing inside their deliveries, the company uses recycled paper due to its cost efficiency and that it reduces the use of plastic. This does not only favor the environment, as it is the better alternative economically speaking as well.

4.2.2 Economic Sustainability

Company A is mostly concerned about the economic dimension, and are actively making trade-offs to fit the dimension. For example, most of their suppliers are located in countries in Asia, but also have some in Europe. Company A is working to keep a farther planning horizon and can therefore use the transportation methods of shipping by sea or railroad for incoming goods, which are more time consuming alternatives. This is mostly due to the low costs, but it favors the environment which the company appeal to. For the consumer deliveries, Company A uses a LSP.

"There is a need of such economic incentives for companies, so they want and can choose the climate-smart alternatives"

When selecting suppliers, Company A takes costs, deliveries, reliability and working conditions into consideration, and they visit every supplier before settling any agreement. However, as stated before, due to the small size of Company A, they are not in the position to make to very high demands. They are hoping that will change when growing to a bigger player in the market.

4.2.3 Social Sustainability

In the means of social interaction with the customers, Company A communicates through their website and their customer support service. The customer support service is the telephone line customers can call if they have questions or problems with the products, which means that the contact that Company A has with their consumers is when the consumers call the support and ask their questions. In case of pick-ups at the warehouse some face-to-face interaction will be conducted, otherwise, no further form of face-to-face actions are realized.

In regards of the social dimension of sustainability, Company A are contributing to a more sustainable society by having a collaboration with a company called Samhall, which is a company that works to create work for people with functional impairment. Company A wants to help people with disabilities to get jobs as they are recruiting from Samhall each year.

4.3 Company B and the E-commerce

Company B is a Swedish retailer, engaged in shoes and other articles in the field, who have approximately 100 stores scattered around in Sweden. As from 2011, they are also available in the virtual marketplace to encompass the wider mass of population, as their products can be delivered all around Sweden. Company B have partnerships and collaborations with suppliers and external brands in both Europe and Asia.

Their physical stores convey the heart and soul of the company whereas the virtual store function as an additional feature to reach the greater mass. With the online store, it is possible to test drive different collections and brands to see if the market is receptive for the new products or not. The online stores is also in favor for the growing demand whereas apart from the consumers, even the physical stores can place orders in the online store if a particular size or model is not available. Company B do not want to distinguish the physical stores from the online store, instead they want a collaboration between them. As an example: all parcels that are sent from the single warehouse that Company B possess, are joint loaded on trucks to the best extent possible and distributed by an LSP. The mode of delivery offers free shipping to the physical stores - which is the more environmental friendly alternative, but it is also possible to get the parcel to the nearest post office or home delivered if wanted. The joint loading is a good way to show the collaboration, since when the customers pick up their parcels at the stores, they get the opportunity of human face-to-face service and contact, which for Company B is very important but is indulgent when shopping from the e-commerce. However, Company B have a well-established loyalty club named Club Solemate were they weakly use mail to communicate with the customer and to inform them about important actions in the company.

4.4 Work within Sustainability

Sustainability for Company B is divided into four dimensions; the environmental-, economic-, social- and the quality dimension, which all will be described below. One thing that is constant throughout all dimensions is the collaborations and the awareness that one cannot do it all, but together, great things can happen. Due to the company's size, they do not have the great weight when dealing with the suppliers, and thus they emphasize that collaborations and partnership can enhance the bargaining strength.

4.4.1 Environmental Sustainability

The environmental dimension refers to pursue its activities in such a way that the world and its natural resources are not adversely affected over time. The company prioritizes suppliers and partners by their endeavor to reduce the environmental impact and they strictly avoid chemicals that are harmful for either humans or environment. Recent, they have used railway transportation from suppliers instead of shipping by sea to enhance the time to market.

"One bag habit" is an initiative that Company B joined in de middle of 2017 as an answer to the new EU directive to contribute to a more sustainable development and to reduce the usage of plastic bags. The initiative prices all plastic bags in order for consumer to increase awareness of the effects of the plastic bag usage. The total amount earned on this initiative is donated each month to different purposes to support a sustainable development in environmental or social matters.

4.4.2 Economic Sustainability

The economic dimension will strive to provide resources in a manner that ensures Company B's financial position and the company's future. For example, Company B confirms that their e-commerce is growing and that the sales in physical stores are decreasing. However, whereas the interaction with the consumer is important for the company, they are actively seeking to develop new ways of interactions. They are thus trying out new "concept stores" to increase

and create an experience while shopping and to introduce franchise stores. In their sustainability policy they report that they want to work more towards a circular economy. To enhance the return on investment, for an economic sustainability, they have entered the e-commerce market but the effect on the social dimension result in less interaction with the consumers, since the e-commerce is a more anonymous shopping experience.

4.4.3 Social Sustainability

The social dimension for Company B includes the responsibility of well-being for all co-workers, suppliers and the consumers which of whom are affected by the company's activities. For Company B it is important to contribute to a better world, especially in the countries they are involved in. In present, they collaborate with a non-governmental organization that works with social questions in their "sunshine project" in India. They focuses on street children, and by educating and supporting them, they can give the future generation a better life. On their website they justify their engagement by emphasizing: "Because children are the society's future". The company is a monthly found donator to this project, to which they also occasionally donate clothes, shoes and other consumables.

Further, Company B is also engaged in another collaboration with a material aid organization called Human Bridge. The collaboration aims to collects and donates shoes that is not saleable. They donate it to Human Bridge to increase the re-use of products and to decrease the waste of shoes. This initiative goes beyond only the company, now even consumer have possibility to return used shoes in the stores for this collaboration – as an incitement for the action, the consumer get a check worth 50 SEK to use in the store.

4.4.4 Quality Dimension of Sustainability

The last dimension of sustainability is linked to the quality of the company and its products. They strive to provide products with high quality and to give the consumers information about how to increase the lifespan of the products. To increase the lifespan of the products they follow the procedure of reparation, (always trying to repair the shoes if necessary) and if that did not work, it is possible to reclaim them. However, they also offer the possibility of reusing used products.

5 Analysis

In this chapter, the result from the empirical research will be analyzed in relation to the collected literature framework, in order to answer the research questions. The chapter will also provide a detailed description of trade-offs compiled in a table.

5.1 How are e-commerce companies working with the three dimensions of sustainability today?

The rapid growth of the e-commerce has made a shift in how companies today are doing their businesses (Nisar & Prabhakar, 2017), and since the reach of consumers is wider, the competition has increased significantly within each industry as people now can order anything they want from anywhere (Laudon & Traver, 2008). Fortunately, the awareness of the three sustainability dimensions are getting more attention as sustainability becomes more important (Macchion et al., 2017). The term of sustainability is however hard to grasp (Cox & Pezzullo, 2016), which was noticeable at Company A since the definition of sustainability was unknown to both of the respondents, and neither knew what the term actually meant. Nevertheless, this is a common fact according to Morrison-Saunders et al. (2015). The company is however making a few sustainable actions, but they are not properly communicated on the website, and is thus unknown for the customers. Company B on the other hand has a developed sustainability report and a division dedicated to the work with sustainability factors which is easily accessed through their website, and they also send out updates via mail to their club members. However, the importance with sustainability is not to define or communicate it in the proper manner, it is foremost important that companies are working with it at all.

5.1.1 Environmental Sustainability

Both Company A and B are experiencing higher pressure on sustainability factors from consumers, as they are more conscious of the impact of their own purchasing behavior. This is in consensus with Laroche et al. (2001), who claims consumers are getting more aware of how to be environmentally friendly. As they are raising demand on sustainability, the case companies are extending their product portfolios with more ecological and environmentally friendly alternatives to their consumers. However, it is not only about offering alternatives. The consumers need to be informed, educated and motivated why they should choose the "green" products (Laroche et al., 2001), which often have a higher price. Within this area, Company A falls through as they are not fulfilling the informative need with the consumers. Company A's website are not describing how the different materials are connected to environmental implications or factors similar to it, only what kind of material they are made of and how the materials are in relation to quality. Company B on the other hand are much more informative regarding their green products, but it could also be enhanced further with the actual effects on the environment and how the green product reduces the negative effects. Consumers need to know how the green products are less harmful to the environment (Kianpour et al., 2013). By informing each individual on how their actions makes a difference, which is highlighted by Laroche et al. (2001), the demand of green products might increase even further. Since companies are dependent on what the consumers demand, they are the ones who somewhat controls the production of the products. It could force companies to work further with the green concepts.

This is connected to other aspects as well, e.g. packages. The packaging part in a company majorly contributes to the greenhouse effect in a negative way (van Loon et al., 2015), which therefore needs more attention and consideration. Company A explained how they reused packages to their consumers, but had to stop since it was not appreciated by the consumers. One can speculate around this. Were the consumers well informed about how the reuse of the packages positively affected the environment? Information and education within the area could make a difference (Laroche et al., 2001). Nevertheless, Company A are using recycled paper for the stuffing, which favors both the economic and environmental dimension and is a step in the sustainable direction. This could be appreciated by the consumers as well, if they were informed about it. Company B have not stated any actions regarding their packaging functions neither on their website nor in their sustainability report, which thus could use further attention.

One action both of the case companies are claiming that they are taking, is the joint loading of their parcels from the warehouses. However, both Company A and B are using LSPs for their deliveries, hence they do not have the main control over them after they have left the premises. This can be elaborated into questioning if they are putting any pressure on their LSPs, since neither of the companies are offering an environmentally friendly alternative of transportation. As the online shopping have increased the number of transportations (Mangiaracina et al., 2015), hence increased amount of emissions (Carrillo et al., 2014) the companies needs to consider this. Another factor in the transportation area, is the fact that both of the companies suffers from rebounds. Company B are however claiming that they do not have too many since they charge their customers for the shipping. If the shipping costs actually are affecting the number of rebounds, it can make the consumers think twice before ordering, and thus the unnecessary transportations would decrease.

5.1.2 Economic Sustainability

Economic sustainability is according to Bergman and Klefsjö (2012) mostly created through consumer satisfaction, which both Company A and B have embodied as both focuses on having a good customer support. Empirical evidence enlighten the problem of e-commerce and the anonymity, basically that it is hard to give and receive a personalized service. Thus, the work with the customer support is central because, as stated by Sullivan and Kim (2018), if there is no trust or satisfaction, consumers tend to choose other e-commerce companies to purchase from. Even though the case companies see the bigger picture regarding the sustainability and the importance of the three dimensions together, the economic part is prioritized by the case companies. Without consumers, there is no company. Ammenberg and Hjelm (2013) point out the importance of "long-term-perspectives" whereas companies must focus on economize with the resources. This statement is partly confirmed by Company B, whereas they work closely with their suppliers to obtain high quality materials for the products. It is also confirmed by Company A who, for example, are working with long planning horizon perspectives with their suppliers, in order for the company to be able to use shipping by sea as transportation mode from supplier to the site. This is both economic and environmentally friendly, but time consuming.

E-commerce in general have enabled a higher flexibility (Deljavan Anvari & Norouzi, 2016), which both case companies can confirm. The flexibility is used in numerous ways by the companies, e.g. Company B uses the e-commerce to reach more consumers as well as they uses the e-commerce platform to try out new products and attributes to see how the market will receive and embrace them. This saves the resources, the distribution emissions and especially money if the products are not saleable, which is a great opportunity and advantage with the e-commerce in the context of sustainability.

5.1.3 Social Sustainability

Companies in general have the means to improve society as they are the ones providing products on the market. Basically, companies thus have the possibility to enhance the sustainability development (Elkington, 1999), but it all goes down to if the consumers are prepared to choose the particular company or not. The empirical findings reveal that both Company A and B are working to improve the social dimension while meeting the needs of the consumers. Considering that Company A does not have a stated CSR report, or making their social work visible on their website, this unfortunately does not give them any competitive leverage in that manner. Since consumers have increased knowledge regarding the environmental impact of their purchasing behavior and are adapting a new thinking when shopping (Laroche et al., 2001), one can assume that the awareness of social setting are increasing as well. In consensus with Laroche et al. (2001), who further emphasize that it is important to communicate in order to increase knowledge, one might argue that Company A should communicate more in order to gain competitiveness. Consequently, this may increase sales and furthermore their work with Samhall and contribute to a better life for the many.

Concerning the social work of Company B, it is more cohere with the statement of Hossain (2002), as it creates links and integration between countries and further improves the social settings since they are donating, evaluating and improving the welfare on the production sites and in specific projects in the countries they are involved in. A disparity between Company A and B´s social work is mainly where they lay their focus, locally or abroad. Plus their way of showing it and not showing it.

Neither of the case companies confirm any type of labor substitution accompanied by the e-commerce which is emphasized by Biagi and Falk (2017). However, Company B states that due to the new market conditions, they have closed some of their stores. This is a bit contradictory, as some may argue that the new market condition is created through the growth of e-commerce

5.2 What are the trade-offs between the three dimensions of sustainability from an e-commerce perspective?

Throughout the literature and the empirics, some evident trade-offs that the e-commerce companies have to consider while doing business were shown. In order to create a sustainable development one must consider all the three dimensions of sustainability (Ammenberg & Hjelm, 2013). The provided table (Table 5) have the purpose of simplifying and clearly distinguish some of the most general trade-offs in the B2C e-commerce sector. The horizontal sections are divided by opportunities that arises for companies that enables e-commerce, and

the trade-offs section refers to the trade-offs that the companies need to manage and evaluate. The section of references is provided in order to see from where the trade-offs are supported. The vertical sections are divided by the dimensions two-on-two in order to make the understanding of the trade-offs more clear

Table 5. Trade-offs between the sustainability dimensions

	Opportunities	Trade-off	References
	Economic: E-commerce enables a global reach of consumers and generates a wider availability for companies.	Environmental: When reaching consumers worldwide, the transportation routes to consumers can be significantly increased.	Laudon & Traver, (2008) Andonova, (2003) Carillo et al., (2014) Mangiaracina et al., (2015)
	Economic: E-commerce technologies permits a high degree of personalization, making it easier to attract consumers on individual levels.	Environmental: Individualistic consumption behavior increases number of parcels, transshipments and transports overall and thus leads to higher emissions.	Arnold et al., (2018) Nisar & Prabhakar, (2017) Laudon & Traver, (2008) Van Loon et al., (2015) Mangiaracina et al., (2015) Company A Company B
Economic & Environmental Dimensions	Environmental: Due to more consumers and higher competition, the demands concerning companies being sustainable is growing. Sustainability can be used as a competitive tool or strategy.	Economic: Making changes into being sustainable might be costly and need high economic investments.	Ammenberg & Hjelm, (2013) Company A Company B
	Environmental: Since companies now are crossing borders, the number of regulations and laws have increased, which companies must follow.	Economic/Environmental: Due to the different laws and regulations, it can require much investment to commit to them all, which leads to enforcement of minimum level of compliance.	Zhu et al., (2012)
	Economic: E-commerce benefits companies through cost reductions in forms of not having any physical stores, and increased flexibility to meet customer requirements.	Environmental: Since the consumers cannot evaluate the products before getting them delivered, they might discover that they do not want them and send them back. This gives an increased number of transportations with appurtenant greenhouse emissions.	Nisar & Prabhakar, (2017) Andonova, (2003) Company A Company B
Economic & Social Dimension	Economic: Being available on the e-commerce gives an extended reach of consumers worldwide, which creates more opportunities for sales	Social: Due to globalization, the competition and thus the pressure is a lot higher. Forces the companies to often compete with prices and "less sustainable products"	Macchion et al., (2017) Nisar & Prabhakar, (2017) Company A
	Social: Due to the knowledge and communication transfer, the e-commerce has enabled wider access to scattered consumers, and thus improved social innovations.	Economic: Social innovations can be quite extensive projects that needs investments and commitment. By investing in a social innovation, it will affect the company economically.	Cui et al., (2017) Phills et al., (2008) Pol & Ville, (2009) Company B

	Economic: Companies does not have the same need of physical stores, which is a cost-saving aspect	Social: Due to companies might shut down their stores for economic profit, physical-store labors might risk losing their jobs, which is not good for their social settings.	Biagi & Falk, (2017) Company A Autor, (2013) Company B
Economic & *Social Dimension*	Social: When companies who want to be sustainable are looking to collaborate with suppliers who have good working conditions it creates opportunities for the companies/suppliers to invest in such actions, since they know there is a demand for it.	Economic: The suppliers who offers the best values and quality are often the costliest one and can therefore be neglected. Thus, it is usually the cost that prevents the choice of "better products"	Company A Company B Lozano, (2007)
	Economic: The virtual stores are not as costly or as limited as the physical stores. This the e-commerce has more opportunities to sale, and a wider reach.	Social: By dismissing physical stores, the face-to-face interaction with consumers will be lost, and thus it might be more difficult to earn trust and loyalty. Consequently, the trade-off is between making cost-savings or having important social interactions with consumers.	Sullivan & Kim, (2018) Li et al., (2009) Company A Company B
Environmental & *Social Dimension*	Social: Higher competition and high pressures stimulates and increases labor productivity and motivation.	Environmental: When entering the e-commerce sector, the competition increases, resulting in cost-saving measures as the use of cheaper material or transportations that might be needed resulting in higher emissions or "less green products"	Deljavan Anvari & Norouzi, (2016) Theyel & Hofmann, (2015) Company A
	Social: By crossing the national boarders, the e-commerce enables a link between developed and developing countries that can raise the social settings in developing countries.	Environmental: Since it is easy to purchase practically anything, the individualistic consumption **behavior** increases which affect the natural resources negatively.	Hossain, (2002) Lozano, (2007) Company A
	Environmental: Companies can re-use their received packaging materials when sending new orders to consumers and thus reduce costs and reduce the amount of packaging materials	Social: Old packages are not appreciated from the consumers, and consumer satisfaction and loyalty are of most importance. The trade-off is thus, risking consumer satisfaction and instead be environmentally friendly, or the other way around.	Company A Sullivan & Kim, (2018)

5.3 What recommendations can be made to make e-commerce companies more sustainable?

Since the sustainability awareness is growing, companies has to involve corporate sustainability developments in order to be competitive. But as the term sustainability is hard to grasp properly (Aras & Crowther, 2009; Cox & Pezzullo, 2016), and there is no existing standard of how to become sustainable (Zhu et al., 2012), companies might find it hard to know how to proceed. Ammenberg and Hjelm (2013) states that all of the three dimensions of sustainability are equally important, which both Company A and B agrees with, but the trade-offs between the dimensions can be difficult to handle.

As companies are very dependent on their customers and meeting their needs and demands, one might elaborate the actions of Company A where customers are requiring that the company works more with sustainability, mostly regarding environmental factors. This are resulting in that Company A are expanding their product portfolios with more green alternatives. The customers however still want to pay the lowest price possible for the demanded product, since most of the products are disposed after usage. However, if customer demand on the more environmentally friendly alternatives would be increased, it could push out the less friendly alternatives, since it more or less is the customer demand that controls what is on the market.

The main recommendations that can be drawn from this study is to first of all, lay more attention to, and improve, the communication between the companies and its customers. Because more and more customers are now willing to pay a higher price for a more environmentally friendly product (Laroche et al., 2001), but they need the right information and motivation to do so. Confirmed by both case companies, it is difficult to inform customers with all the right information on virtual marketplaces. Small matters of increasing product descriptions is a step in the right direction. Customers cannot actively choose the green products if they do not know which they are and how they are sustainable. By only stating that "the product is environmentally friendly" is not enough. Due to the increased individualistic consumption behavior (Lozano, 2007), customers need to know and see how every individual action can make a difference, and that it is not only the companies responsibility to protect the environment and the societies (Laroche et al., 2001). Both Company A and B has described their future vision of concepts stores, where customers are intended to go and experience the products instead of picking them of shelves. This thought can be elaborated into e-commerce perspectives as well. By adding e.g. photos, videos or detailed descriptions to the sustainable products, how they contribute positively to the sustainability dimensions, companies can create emotional attachment with the customers. Consequently, the customers can "experience" the differences with a green product, and what it can contribute to.

The second recommendations are regarding economic incentives. To describe how economic incentives can be applied and used, a scenario within the packaging area is going to be motivated, which is based on Company A's old initiative of reusing packages. Since packages overall is negatively contributing to the environmental dimension (van Loon et al., 2015), and the B2C e-commerce is increasing the number of individual packages (Mangiaracina et al., 2015), the idea of reusing packages should be further investigated. In this scenario, packages are referred to secondary packaging, e.g. cartons, corrugated packages and similar. However,

many customers were dissatisfied with having old packages delivered to their homes. Therefore, the idea is to offer the customers two alternatives. Since reusing old packages are not as costly for companies as ordering new ones, one alternative is to have an old package with zero cost, and the other alternative is to pay extra for a new package. This is a similar idea to the "one bag habit" initiative that Company B is involved with, where they now charges a small amount of money for the plastic bags with the goal of reducing the consumption overall and increase awareness of the negative environmental impacts. By communicating thoroughly to the customers why reusing packages is an environmentally friendly alternative, which in this case is also free of charge, the customers might get a second opinion regarding the idea and gain knowledge in the matter. An additional factor to speak for this idea, which also can attract emotional attachment, is to connect it to the social dimension as well. The cost-savings that will be connected to the reusing of packaging materials could be donated to a social innovation. Social innovations are aiming to improve life conditions for individuals, or help to improve life quality in cities (Pol & Ville, 2009; Phills et al., 2008), which can help to decrease the gap between the developed and developing countries.

By starting with an economic incentive which pushes customers to think and explore options, it can result in getting the customers more involved and informed about the environmental and social dimensions of sustainability as well, and thus they will be given the opportunity to contribute to a more sustainable world. This could create a link and collaboration between the customers and the companies, as protecting the environment, economize with resources and making societies strong, is everybody's responsibility.

6 Conclusion

This chapter will present the main conclusions of the research as it will fulfill the purpose of the study. Additionally, the theoretical and practical contributions will be described. The chapter will end with proposals of further research within the area.

6.1 E-commerce and the Three Dimensions of Sustainability

E-commerce is so much more than just a new way of doing business, it is a new paradigm and some even state that it is imperative to maintain competitiveness. Furthermore, as e-commerce is growing, there is still questions about how the e-commerce can be sustainable from an environmental, economic and social perspective, which this study was aimed to explore. The purpose was to investigate how the three dimensions of sustainability can be integrated within the e-commerce sector to make it more sustainable.

Communication has been revealed to be a key aspect in sustainable development, as everyone needs to be reminded of why one should act sustainably, and which necessary trade-offs that needs to be made. As the companies are driven by customer demand, it is the customers who has the main "control" over the market. Since the consumption behavior of today is not always sustainable, there are some incremental changes that companies can do to embrace a more sustainable development. Mainly, companies need to inform the customer on why to choose more sustainable products, what the products can contribute with, and how the products or the company itself affect the environmental, economic and social dimensions of sustainability. If so, it increases the customer's knowledge and awareness regarding the sustainability, and as a result, it can create emotional attachments and thus change the purchasing behavior. The consumers need to demand more sustainable products and company actions in order for the companies to invest in such sustainability actions. The way to increase awareness with the customers is for the companies to educate them by information. The customers can be pushed further in the right direction by the usage of economic incentives e.g. charges for new packages, less sustainable delivery modes and/or rebound shipping charges.

Moreover, the trade-offs that emerged through the study are showing that the economic dimension of sustainability is predominant over the other dimensions, since companies usually need financial resources to improve their work within the other two dimensions. Companies' first and main concern is to secure economic wealth for themselves, but in order to become more sustainable this has to change. It is not solely up to companies to improve the world, but they can make a great difference. The trade-off table presented in the analysis displays clearly where companies' are doing trade-offs and thus where they can choose a better – more sustainable – alternative.

6.2 Theoretical Contribution

This thesis contributes to science by the unification of the e-commerce and the three dimensions of sustainability. The study thus merge science with empirics to create a deeper knowledge and contribute to the body of literature with a compiled table of trade-offs, and by high-lightening the importance of communication through a company´s website.

6.3 Practical Contribution

Practitioners will be enlightened of the importance of all the three dimensions of sustainability, and they will understand the concept and events of trade-offs for sustainability when working within e-commerce. The thesis also provides insight for companies to learn how very important it is with better communication about sustainability factors to its consumers.

6.4 Proposals for Further Research

Throughout this study, interesting areas for further research has been revealed. Firstly, sustainability overall is a topic that needs further investigation, and since the e-commerce is growing, the combination of the two is of utmost relevance. For instance, this study could be done in a wider range by including companies from different countries. Secondly, the trade-off table could be expanded by the use of more case companies, with more specific selection criteria's, e.g. well-developed sustainability assessment, representatives within the sustainable development or overall more equal prerequisites. By using more companies, the trade-off table could thus be validated. Thirdly, one could expand the research to business-to-business to cover a greater area of e-commerce. The last proposal for further research, is to do an in-depth study regarding the marketing of sustainable products, to increase the consumer knowledge and motivation.

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Appendix 1- Interview questions

What do you do and what is the company's vision in e-commerce?

How long have you been working within the e-commerce?

Why did you choose to enter that market?

Have you reached more customers since you started e-commerce?

Company B: Statistically, where do you sell the most online / offline? → data on this?

Company B: What does the sales trend look like for you? Where do the sales increase the most in physical or virtual stores?

Is it harder to sell products in physical stores now?

Do you think the physical stores will be closed in the future?

What is sustainability for you?

How do you work more specifically with the three dimensions of sustainability?

Environmental sustainability?

Social sustainability?

Economic sustainability?

When you work with your e-commerce, do you do any trade-off between the dimensions?

Economic - Social

Social - Environmental

Environmental – Economic

Which dimension is most important to you?

What would you like to do better in environmental sustainability?

What would you like to do better in social sustainability?

What would you like to do better in economic sustainability?

How do you create trust with your customers?