Is There Such A Thing As Too Much Intelligence?

A qualitative study exploring how Born Global e-commerce companies are working towards adopting Artificial Intelligence into their Customer Relationship Management Systems.

Author: Hannah Larsson and Amanda Bäckström
Supervisor: Clarinda Rodrigues
Examiner: Niklas Åkerman
Term: VT18
Subject: International Business
Level: Bachelor
Course code: 2FE51E
Abstract

The purpose of this thesis is to explore the drivers and barriers of adoption of technology such as AI and how it could facilitate an internationalization. The thesis also hopes to explore how Born Global e-commerce companies are working towards an adoption of AI into the companies CRM-system. The model of multiple case study was chosen together with a qualitative method and an abductive approach. This was done by collecting primary data from three different Born Global firms within the e-commerce sector, as well as one CRM expert company, all located in Sweden and active on the international market. Furthermore, the theoretical framework presented Born Global, Technology Adoption, Customer Relationship Management and Artificial Intelligence. With the theoretical framework in mind, the conceptual framework was developed to show how the theories are connected to each other. Thereafter, the empirical findings were first presented and analysed together with theory and the voice of the authors of the thesis. The analysis visualize both similarities and dissimilarities between the empirical findings and the theory presented in the thesis. The final chapter concludes the barriers and drivers that Born Global e-commerce companies faces when adopting AI into their CRM-system. It also explains how AI within CRM could be beneficial as a tool on the Global market, rather than in the actual process of internationalization. To conclude the authors present the fact that companies are not working towards an adoption of AI into their CRM-systems. However, further development within the field is presented as well as theoretical and practical implications.
Key words
Born Global
Electronic Commerce (e-commerce)
Artificial Intelligence (AI)
Machine Learning (ML)
Customer relationship management (CRM)
Data Mining
Customer Knowledge Management (CKM)
Technology Adoption
Innovation Cycle

Acknowledgments
We would like to thank all the participants in this thesis for helping us to provide information within the field of AI and CRM for born global e-commerce companies. We sincerely would like to thank the interview participants Daniel Håkansson at NA-KD, Robin Åhlander at DesignOnline, and the participants from the anonymous companies. We are grateful for your contributed to this thesis and for making it possible.

We would also like to thank our supervisor Clarinda Rodrigues for her support and valuable feedback regarding the thesis. She have provided us with guidelines which facilitated the process of writing this thesis. Furthermore, we also would like to thank Niklas Åkerman our examiner for his feedback, as well as the opponents for their support and critical thinking during the course of this thesis.

Kalmar, 22 May 2018

Hannah Larsson
Amanda Bäckström
Table of contents

1 Introduction
   1.1 Background
   1.2 Problem Discussion
   1.3 Problem Definition (Question)
   1.4 Purpose
   1.5 Outline

2 Theoretical Framework
   2.1 Born Global
      2.1.1 Internationalization of Born Globals
   2.2 Technology Adoption Theories
      2.4.1 Diffusion of Innovation
      2.4.2 Technology, Organization and Environment framework
   2.3 Customer Relationship Management
      2.3.1 E-CRM
      2.3.2 How is it used today?
      2.3.3 Data Mining
      2.3.4 Customer Knowledge Management
   2.4 Artificial Intelligence
      2.3.2 The Fields of AI
      2.3.3 Criticism of AI
   2.5 Conceptual Framework

3 Method
   3.1 Abductive Method - research approach
   3.2 Qualitative Research - research method
   3.3 Research Design
      3.3.1 Multiple case studies
   3.4 Sampling Method
      3.4.1 Cases
   3.5 Data Collection
      3.5.3 Structure of interviews
   3.6 Operationalization
      3.6.1 Operationalization 1 for Interview with e-commerce companies
      3.6.2 Operationalization 2 for Interview with CRM experts
   3.7 Method of data analysis
   3.8 Quality of research
      3.8.1 Reliability
      3.8.2 Validity
   3.9 Ethical Considerations
4. Empirical findings
  4.1 Company A
  4.2 NA-KD
  4.3 DesignOnline
  4.4 The CRM expert

5. Analysis
  5.1 The Born Global Mindset
  5.2 Creating Value for Customers Through CRM
  5.3 AI The New Buzzword Within E-Commerce
  5.4 Adoption of AI and CRM

6. Conclusion
  6.1 Answering The Research Questions
  6.2 Theoretical implications
  6.2 Practical implications and recommendations
  6.3 Limitations
  6.4 Future research

7. References
  7.1 Articles
  7.2 Literature
  7.3 Journals
  7.4 Reports
  7.5 Websites

Appendices
  1.1 Interview questions for born global e-commerce companies
  1.2 Interview questions for “expert” CRM-company


1 Introduction

In this upcoming chapter an introduction and background to the subject of the thesis will be presented. Thereafter a problem discussion will be conducted to explain the relevance and the problems around the phenomenon. Then the research questions will be presented together with the purpose before concluding with an outline of the study.

1.1 Background

Throughout history there has been an increase in interest from firms in doing operations across borders otherwise referred to as internationalization (Barkema, Bell & Pennings, 1996). In general, this is a result of the globalization and the technological development within the areas of communication and trade barriers (Mathews & Zander, 2007). From the phenomenon of companies rapid internationalization, the phenomenon of Born Global arose (e.g. Oviatt & McDougall 1994; Bell, 1995; Madsen & Servais, 1997). A Born Global company can be described as a firm that straight from its birth have the intention to go international and to seek competitive advantage from sales and resources in multiple countries (Oviatt & McDougall 1994). Born globals are characterized by their strong innovative and international entrepreneurial culture (Knight & Cavusgil, 2004). During the last decades, the use of internet has increased, and this as an advantage for the born global companies in the way of creating networks (Moen, 2002) as a direct sales channel to foreign market (Gabrielsson & Gabrielsson, 2011).

The accessibility of the digital platforms such as electronic-commerce has today given the consumers more shopping opportunities than ever before. Customers have immediate access to retailers all over the world with just a click away (Lui, 2017). Electronic-commerce, or e-commerce can be defined in many different ways, Deric Slavaco (2017) presents e-commerce in two different aspects; procedures and technologies. These automate the tasks of financial transactions using electronics for the process of buying and selling also including pre- and after-sales on the internet. E-commerce is defined as followed; "business processes, commercial activities, or other economic tasks conducted over the Internet or computer mediated networks” (Fitcher, 2003, p.26). As a result of the growth in e-commerce shopping the retailers are also facing a few challenges. Melén (2010) claims that the fast-technological development is the reason behind the e-commerce companies opportunity to gain competitive advantage from global sales. Previous research argues that economic benefits does not come from launching new products rather from internal incremental changes in technology, marketing and strategies (Reichert & Zawislak, 2014).

There are several theories as well as studies conducted around adoption of technologies or innovations (Oliviera & Martin, 2011.; Rogers, 2003) due to the perception that companies performance is interconnected with a firms technological capability (Reichert & Zawislak, 2014). According to Oliviera and Martin (2011) adopting
advanced technologies is regarded as an universal tool in enhancing competitiveness. Therefore, it is of importance to understand the determinants that drives companies to further adopt technologies (ibid). Suebsin and Gerdsri (2009) define technology adoption as the first use or acceptance of a new technology. Rose, Hair and Clark (2011) states in an article the importance of understanding how to give the customer the ultimate customer experience both within and outside the channel.

Today’s customers expect immediate gratification, this have resulted in e-commerce brands working to obtain fleeting moments of opportunity (Lawton, 2017). If the customers are not getting their needs met at one place they will quickly move on and complete their purchase elsewhere. Companies need to detect needs in the present time and react to it right away in order to harvest revenue (ibid). To be able to meet the customers on their level of needs and expectations companies have for a long time been working with Customer Relationship Management. Customer relationship management, or CRM as defined in this thesis, is a tool integrated in marketing, sales, customer service and supply-chain within the organizations to achieve efficiency and effectiveness within customer value (Navimipor & Soltani, 2016). CRM is conceptualized as companies core business strategy that connects the internal processes with external networks (Buttle, 2009). It is enabled by information technology and grounded on customer related data (ibid). CRM has been a vital part in companies getting and sustaining customers in an online setting (Fjermestad & Robertson, 2015). CRM has become a priority in boardrooms all over the world due to the insight that having customers that keep coming back is an important factor to achieve success (Raab, Ajami, Goddard & Gargeya, 2010).

There are few fields that are growing such as customer relationship management, and the market for CRM-solutions grow around 8,6 percent annually (Computer Sweden, 2017). The last couple of years the way in which we communicate has changed radically, and CRM has had to follow that development. CRM used to be a sales system, which the sales manager could use instead of old fashioned notes, and later became customer services (Computer Sweden, 2017). The move of CRM to the digital market means that the customer can reach the company whenever they want, this also expands the need for automation and technology based on Artificial Intelligence, such as chatbots (Computer Sweden, 2017).

Artificial Intelligence also known as AI, a theory dating back to 1950’s, has today been developed into helping companies in their daily tasks. The definition of Artificial Intelligence was coined by John McCarthy and defines AI as a field of science and engineering focused on making intelligent machines (McCarthy, 2007). AI has been around for decades but the growing interest in the field is being driven in part by the impact it can have on customer relationship management (Leary, 2017). Through the AI technology “deep learning”, information that each customer leaves behind on the website can be tracked and analysed. With this information about its customers it can help companies to estimate the individual conversion rate and in that way, maximize
the profitability of a campaign (Oana, Cosmin & Valentine, 2017). According an article by Brent Leary (2017) companies have seen an increase between six to fifteen percent in average revenue per visitor. One prediction in the field of CRM is that by 2020 75 percent of all customer interactions will be through AI (Salesforce, report, 2016). Another field in which AI can be helpful is through market forecasting, were the technology can gather data of previous sales, economic trends and social media and make predictions (Owens, 2017).

1.2 Problem Discussion

CRM companies such as Salesforce and Oracle have been aggressively investing in AI during the last couple of years to stay competitive and are being described as the benchmark by which most competition is being compared to (Walker, 2017). The AI functions offered by Salesforce and Oracle are; personalized marketing/experience, predictive product recommendations, optimizing the selling process for representatives, as well as chatbots (ibid). Large e-commerce companies such as Amazon have been investing in AI for the last 20 years, and are using the technology of machine learning to enhance the customer experience (Amazon, n.d).

The investments in AI keeps growing, however, actual implementation of the technology into companies still remains low in 2017 according to a report by Steve Borthwick (Artesian report, 2017). In the same report, it becomes clear that 41 percent of the companies in the study are still uncertain of the benefits AI would bring their organization. Another study by Forrester Research showed similar results that there is a gap between interest in AI and actual implementation of AI technologies (Stackpole, 2017). An article by SAS (2017) also point out the fact that most of the companies seems optimistic about the thought of AI, but when asked about implementing AI in the CRM-system companies where not as optimistic. According to SAS (2017) an issue of trust can be seen in regards to AI adoption, and the biggest worry about implementing AI is the lack of trust among the organizational level. However, a study by Grantz, Shubmehl, Wardley, Murray and Vesset (2017) mention that that 55 percent believe that AI will have an impact on CRM during the years 2018/2019.

Internal capabilities have been described as having an effect on adoption of technologies (Oliviera & Martin, 2011), and can be corroborated by other sources. A study conducted by the European Commission (2006), argues that small firms (similar to the companies in this thesis) usually have problems with internal resources that limits their scope of development and reduces access to new technologies and innovations. Examples of these internal resources can be flow of capital and lack of know-how (ibid). In an report by SAS (2017) the study point to the issue that companies feels that they do not have the right competence within the company to enable an implementation of AI in the CRM system.

Due to consumers increasing adoption of digital lifestyles business must change how they interact and work with customers. The long-term strategies are no longer
sustainable due to the fact that change is constant (Raut, 2017). According to the consultant firm Capgemini, by the year 2025, 40 percent of fortune-500 companies are likely to vanish due to digitalization and not keeping up with the trends surrounding it (Zzauer, 2017).

There are several gaps identified within the different fields that will be discussed in this thesis. Previous research regarding AI have studied how supply-chain could benefit from AI technologies to solve practical issues (Min, 2008). However, the field of AI as a compliment to CRM-systems is fairly new (Walker, 2017). While the business side seems to “rave” about the new opportunities that AI could bring (Owens, 2017.; Walker, 2017.; Leary, 2017). There is a gap surrounding adoption of new technologies such as AI and other systems. The previous research regarding adoption of new technologies has either been broad in the sense that it looks at the whole sector of IT or technology implementation. Previously mentioned research has focused on driver and barriers of implementation through technology adoption theories (Oliviera & Martins, 2011). Other authors have focused on drivers and restraints in adopting IT in electronic-business (Ahlfors, Makkonen & Zhong, 2014) as well as CRM adoption in the business-to-business sector (Richard, 2007). No research has been found by the authors that looks at the implementation, as well as drivers and barriers of AI adoption within the field of CRM.

Several different studies can be found in the field of CRM (Hillebrand, Nijholt & Nijssen, 2011.; Khodakarami & Chan, 2014.; to mention a few) as it is a fairly beloved field of both business and research (Navimipour and Soltani, 2016). Some research could be found in regards to CRM integrated with AI, for example in the use of chatbots (Hill, Randolph-Ford, & Farreras, 2015), or cloud computing (Sharma, Al-Badi, Govindaluri, & Al-Kharusi, 2016). Other research has looked at the effect AI can have within customer management in the hotel sector (Talón-Ballestro, González-Serrano, Soguero-Ruiz, Munoz-Romero, & Rojo-Álvarez, 2018). However, the study of CRM and AI as one phenomenon is fairly unexplored in the field of research. One study based upon a survey was found which investigated enterprises “readiness” for AI within CRM as well as the impact it will have on the global economy (Grantz et al, 2017). The Grantz et al (2017) state that enterprises are ready to implement and take advantage of AI and that the year 2018 will be a year for adoption of AI. However, the study by Grantz et al (2017) only mentioned enterprises readiness for AI. The authors of this thesis were therefore interested in knowing what about Born Global companies which are usually SME’s (Oviatt & McDougall, 1994). The authors of this thesis have therefore identified a research gap in the field of CRM containing AI.

A study to explore how Born Global e-commerce companies work with CRM would be beneficial to understand how they are working or getting ready to work with AI. As well as what barriers and drivers could be found in companies regarding implementation of AI in CRM-systems, and what are the implications for the international business sector.
1.3 Problem Definition (Question)
Based on the research gap and the problem discussed of the subjects, one main research question and two sub-question have been developed:

> How are Born Global e-commerce companies working towards adopting AI as a CRM solution?

> What are the barriers and drivers for Born Global e-commerce companies to adopt AI into their CRM-system?
> How do AI within CRM-systems facilitate internationalization?

1.4 Purpose
The purpose of this study is to gain knowledge about how Born Global e-commerce companies are working with CRM and how implemented AI is in their systems today. The thesis also hopes to shed a light on Born Global e-commerce companies perception of barrier and drivers adopting new innovations such as AI within CRM-study. This exploratory study hopes is to unveil the fairly new field that combines AI and CRM-systems by interviewing three different managers within e-commerce companies as well as an manager of an CRM-company.
1.5 Outline

**Introduction** 1

This chapter will present a background regarding the studied topic, followed by a problem discussion, research gap, research question, and the purpose of the study. The chapter will then be concluded with the delimitations and outline of study.

**Theory** 2

This chapter will give the reader relevant literature regarding the subjects that will be used when analyzing the empirical data. At last, a theoretical framework will be presented to the reader.

**Methodology** 3

In this chapter the choice of methodology will be presented, also the motivation why and how it is applicable in order to conduct the research.

**Empirical Findings** 4

This chapter will provide the empirical findings of the interviews as well as secondary data collected that later will be used to make the analysis of this study.

**Analysis** 5

In this chapter the empirical findings will be analyzed in relation to the literature review. Together with our own voice a suitable strategy will be discussed.

**Conclusion** 6

In the concluding chapter the results of this study will be presented, as well as recommendations for future studies in the field.
2 Theoretical Framework

In this chapter, the theoretical framework will be presented. The chapter begins by explaining the phenomenon of Born Globals and their internationalization process will be further explained. This will lead us to a presentation about adoption of technology and lastly, the chapter will be finalized with a theory outline of CRM and AI.

2.1 Born Global

Researchers have for a long time discussed the growing phenomenon of firms who internationalize at an early stage, companies who do not follow the normal incremental internationalization process (Madsen & Servais, 1997, Hollensen, 2016). The phenomenon of firms who internationalize at an early stage has been given the term Born Global companies. Expect for an early internationalization, researchers have identified other aspects that have become apparent. Madsen and Servais (1997) states that there has been a rapid change in the area of technology on the international market. The outcome is that people all over the world have gained a greater international experience over the last couple of years (Ibid).

Researcher have had different opinions how a born global company actually should be defined and the phenomenon has also been referred to as Global New Venture, New Ventures, but the most common one is Born Global (Hollensen, 2016). Oviatt and McDougall (1994, p.49) have defined born globals as companies who seek competitive advantage and resources through sales in multiple countries. Oviatt and McDougall (1994) grouped born globals and four different categories were made. The categories were dependent on the numbers of countries involved and how many value chain activities that where identified. Other than the definition made by Oviatt and McDougall (1994) the typical defined born global firm is categorized being a SMEs. Born Globals are also well known of having a great entrepreneurial vision, beeing technology-oriented, and from birth sees the world as one limitless marketplace. An extension of the last definition is made by Cavusgil and Knight (2004), where the criteria of 25 percent of sales should be made through the foreign market for a companies to be defined as a born global. Cavusgil and Knight (2004) also defines the term early internationalization as a requirement of internationalization within three years of birth. The chosen definition of Born Global for this thesis is by Oviatt and McDougall (1994, p.49) which states ‘‘a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries’’. The definition was chosen due to its originality within the research-field of Born Global, as well as it is the definition chosen in many previous studies within the field.

The Born Global strategy are challenging traditional theories of internationalization
especially in the way of saving time. Johnsson and Mattson (1988) states that the internationalization process of a highly internationalized firms which is the fact for a born global firm, will be much faster in an internationalized market. Born global firms sees opportunities and not follow the ‘traditional picture’, they seek partners who they can gain competitive advantages from and the internationalization process will be much more individual and the process will be an adoption depending on the situation (Hollensen, 2016). Hollendens (2016) describes that the goal of a born global is to find and use the way to develop a rapid internationalization process. All firms are dependent on knowledge when going international, that is also the case for born global companies, thus there is a difference between born globals and other firms. Many firms have past knowledge that they brings with they, but born global firms do not have the time to collect that type of knowledge within the firm in a rapid internationalization. Born global companies have to develop and collect the knowledge before through networks (Ibid).

According to Knight et al. (2004) have the number of born global firms increased. Hollesen (2016) have stated some factors that may have influenced the rise of born global firms. The first one is the increasing role of a niche market. The global market is getting bigger and so is also the competition among the actors. The customers demand for specialized and customized products are today bigger than before, and according to that the market and competition is growing, small firms as born globals have to gain competitive advantage through these specialized products and narrow down to a niche market where they can compete (Hollensen, 2016). The next factor presented is the fact that increased advancement in process and technology production. This let the producers to be more complex in their production and produce more non-standard products. This gives the smaller companies the opportunity to compete with larger companies on the global market (Hollensen, 2016). Lastly, born global companies shows an increased flexibility from being SME’s and to have large global networks (Hollensen 2016, Madsen & Servais, 1997). Smaller companies have the opportunity to give quicker response, be more flexible, and also be able to adapt to different situations and opportunities (Madsen & Servais, 1997).

2.1.1 Internationalization of Born Globals

In a research conducted by Moen and Servaise (2002), it was found that born global firms are highly involved in the export process from the beginning of the establishment. The authors also demonstrate that Born Globals or new venture firms who starting their export straight from birth, have the highest export sales. The research also shows that old firms that are starting their export several decades after they have established seem to lack in export intensity and export sales in comparison with firm that start exporting from the day of establishment (Moen & Servaise, 2002). The same research also states the importance of time between the establishment and the time when the firm started exporting, and how it affected the firm in terms of international vision, pro-activeness, and responsiveness. According to these dimension
stated in this research, firms that had started exporting straight from its birth, where the most successful in this field (Ibid).

From birth, the internationalization process for born global company normally moves on quickly. Oviatt and McDougall (2005) presented a model describing what four factors that determined the internationalization speed; enabling, motivating, mediating, and moderating. First, the enabler that makes the rapid internationalization model happen. It is also enabled by the rapid development in transport, communication, and technology. Second, the rapid internationalization process is the motivating force of competition, both current and new ones. The advantage in technological opportunities have motivated entrepreneurs to gain competitive advantage (McDougal et al., 1994; Oviatt & McDougall, 1995). The third factors is the entrepreneurial and the mediating force. The person or group that acts upon opportunities and sees through the lens both threats from competitors and potential opportunities. This will at the end influence the entrepreneurs decision making (Oviatt, Shrader, & McDougall, 2004). Forth the speed of rapid internationalization is moderated by the knowledge-intensity that the firm have and the entrepreneurs international network. Oviatt and McDougall (2005) states that the more knowledge-intense a firm is, the faster the process of the internationalization gets also, the internationalization process rapids when the networks are larger and more dense.

Throughout the years many born global firms have been identified forming networks, marketing and using the internet to gain resources. Many famous retailers founded on the internet are born globals, for example Amazon started as a born global (Gabrielsson & Kirpalani, 2004). Servais, Madsen and Rasmussen (2007) states the fact that born global firms have lately faced a global expansion and an increase in using internet as a sales channel. Internet as a whole have become a very important tool for born globals to support their export activities (Moen, 2002). The internet have also been argued as a way for born globals to gain revenues and cash flow (Gabrielsson & Kirpalani, 2004) and it has also been shown that born global firms are the main users of internet as a business platform (Qvaitt & McDougall, 1994). Moreover, the use of internet plays an important role for born global companies. According to Reuber and Fischer (2011), the growth of internet and the online market has enabled firms to become born globals. Several scholars have stressed the fact that the development and usage of internet have a good effect on firms from an economic point of view, where it could be both cost-effective and enable the firms to overcome eventual challenges regarding resources (Gabrielsson & Manek Kirpalani 2004). Looking at e-commerce from an internationalization perspective, it enables companies to overcome barriers across borders, by using the internet as an opportunity of internationalization companies can reach a whole new market and just by launching a new website (Yamin & Sinkovics, 2006; Kotha, Rindova, & Rothaermel, 2001).
2.2 Technology Adoption Theories

Suebsin and Gerdsri (2009) state that to survive in a dynamic business environment companies need to strive or to bolster their competitiveness. Suebsin and Gerdsri (2009) also explain that investment in technology could be a solution as a successful technology adoption could give competitive advantages over superiors (ibid). Oliviera and Martin (2011), states that it is of importance to understand what determines adoption of technology since it is a tool that enhances the competitiveness of a firm. According to Son and Han (2010) the long term survival and substantial success of technologically based firm rely on the continued use of new technology. However, when an alternative new core technology emerges it might take several years until it become industry standard and replaces old (Khanagha, Volberda Sidhu & Oshri, 2013). Khanagha et al. (2013) argues that this might be due to short term profitability expectations that might not yet be a factor.

The definition of technology adoption used in this thesis is by Suebsin and Gerdsri (2009, p.2638) and states “... the first use or acceptance of a new technology or new product”. This definition was chosen due to it being short but still descriptive. The authors also discuss that the definition of adoption is generally related to the decision to accept and use the idea. Suebsin and Gerdsri (2009) describes that there is a divide on when the adoption process starts. Some scholars identify that the adoption process starts from selection procedures while other scholar focus more on the real usage of the technology or when it is about to be implemented (ibid). This thesis have chosen to accept that adoption starts from selection process due to AI being such a novel technology within the CRM sector.

There are models that discuss adoption of technology, such as TAM (technology and acceptance model) and TPB (theory of planned behaviour). However, these theories focus on adoption of technology on the individual's level, which is of less importance for this thesis. The models and theories to be discussed in this chapter is DOI (Diffusion of innovation) and TOE (Technology, organization and environment framework) due to them viewing adoption of technology on the organizational level. However, the authors of this thesis do recognize that the TAM concept belief of perceived usefulness and ease-of-use might be factors influencing technology acceptance or adoption (Suebsin & Gerdsri, 2009).
2.4.1 Diffusion of Innovation

Olivera and Martin (2011), describes DOI as the theory of how, why and at what rate new technologies spread through cultures, operating at the individual and firm level. DOI is a theory based on Everett M. Rogers book Diffusion of Innovation from 1995. DOI theory is related to variables such as; individual or leader characteristics, the internal organization structure and external characteristics of an organization (ibid). From these variables a model has been built to describe on organizations innovativeness, and the model can be viewed below (Rogers, 2003). The individual characteristics describe the leaders attitude towards change which is the first variable in the model. Internal characteristics refers to six different characteristics; centralization, complexity, formalization, interconnectedness, organizational slack and the organization's size. The last component is External characteristics which refers to the openness of systems and is the last variable in the model (Oliviera & Martin, 2011).

![Model 1, Diffusion of Innovation (Oliviera & Martin, 2011, p.111).](image)

Diffusion of Innovation researchers believe that population or different organizations can be broken down into five different segments based on their propensity to adopt a specific innovation (Rogers, 2003). These five categories are; innovators, early adopters, early majority, late majority and laggards. Innovators are imaginative and visionary which is why they adopt innovations at such early stages. Rogers (2003) states that innovators spending a lot of time, energy and creativity in developing new ideas or innovations, and they are described as being very idealistic compared to the more pragmatic majority. Early adopters start to adopt the innovations when the benefits become clear, they are looking to take a strategic leap in their business and are quick to make connections between their own personal needs and what the innovation can bring. Rogers (2003) describe early adopters as wanting to be leaders and trend setters, this is what causes them to adopt technologies at an earlier stage. Early adopters also tend to be more economically successful, well connected and well
informed which makes them socially respectable and when they show success with an innovation others are more likely to follow. Rogers (2003) describe **Early majority** as being pragmatists and comfortable with moderately progressive ideas, however, they will not act upon a new innovation without proof and are referred to as followers. Early majorities endorse “industry standard”, and are cost sensitive and risk averse, and they are looking for simple and proven better ways of doing what they already do. They appreciate minimum commitment of time, minimum learning and want rapid payback periods (Rogers, 2003). **Late majority** are conservative pragmatists who dislike risk and are uncomfortable with new ideas. Rogers (2003) argue that their only driver of adoption of innovation is the fear of not fitting in, and will hence follow mainstream trends and establish industry standards. **Laggards** are described as seeing high risk in new innovations, and will think of many arguments against adopting new innovations. Late majorities are often affected by the fears of laggards which hinders them from adopting innovations (ibid).

It has been argued that Rogers model (2003), should be blended with other adoption theories for a more holistic adoption approach (Hoti, 2015).

### 2.4.2 Technology, Organization and Environment framework

The TOE framework was developed in 1990 by Tornatzky and Fleischer (Oliviera & Martin, 2011). The study takes into account the environmental aspect that the DOI framework lacks (Hoti, 2015). The theory identifies three different aspects of an organization that affects the process by which it adopts and implements a technology and has been developed into a model that is presented below (Oliviera & Martin, 2011). First aspect is technology, both internally and externally of the organization that could be useful in improving organizational productivity. The technology aspect effects the two other aspects rather than have a direct effect on the decision to implement Technological Innovation, which can be viewed in the model (Tornatzky & Fleischer, 1990). The second aspect is organizational which defines the size of the firm, managerial complexity, quality, characteristics, to mention a few. The last one is the environmental context which refers to the organizations industry, such as dealing with business partners, competitors and government. The organizational and the environment aspects have a direct effect in the decision to adopt technologies as can be seen in the model (ibid).
The technological context might influence adoption due to the new innovation is perceived to be better than the technology now used. If the technology is perceived as consistent with values in the company mixed with previous experience and the perceived difficulty of use (Hoti, 2015). The organizational context will have an effect on decision such as how managements perceives adoption of technology, the organizations resources, and the time required to implement the new technology. The environmental effect will come through industry pressure to adopt new technologies, encouragement from governments as well as customer readiness towards new technology (ibid). The TOE framework has been used by previous researchers to understand adoption of more specific innovations and technologies such as; E-commerce (Oliviera & Martins, 2010), E-business (Zhu & Kreamer, 2005) and in Knowledge Management Systems (Lee, Kim, Choi & Lee, 2009).

What the theories TOI and DOI have in common is them both being based on internal and external factors influence of technology adoption. In a study by Suebsin and Gerdseri (2009) on factors influencing technology adoption, the conclusion shows that internal and external influences affect technology adoption.

2.3 Customer Relationship Management

In the 1990s’ the term Customer Relationship Management gradually emerged in the business field (Navimipour & Soltani, 2016). From there Customer Relationship Management (from this point on referred to as CRM), gained legitimacy as an area of interest both in the business field and in the research community (Navimipour & Soltani, 2016., Payne & Farrow, 2005). The motivation behind CRM came from Reichheld, who showed a dramatic increase in profits with just an increase of five percent in retention rates of customers (Winter, 2001). CRM has also been described as an important tool due to the fact that it is often more expensive to acquire new customers than to keep them (Phan & Vogel, 2010). Today, CRM is considered to be...
CRM has many definitions and there is no consensus on a universally accepted definition of the term, this due to its novelty and continuous growth (Chikweche & Fletcher, 2013). Buttle (2009) relates the variations in definition due to the different forms of CRM which was developed between 1998 and 2008. Kincaid (2003) refers to the strategic use of information, technology and people to manage customer relationships across the whole cycle as CRM. Another definition presented by Chikweche and Fletcher (2013), which is similar to Kincaids’ definition which also views CRM as a strategy to connect all the different aspects of managing customer relationship. Khodakarmi and Chan (2014)’s definition differs from previously discussed definitions due to the fact that it views CRM as a set of methodologies and processes to increase customer satisfaction and loyalty. The chosen definition of CRM for this thesis is; “the core business strategy that integrates both internal processes and functions, and external networks. In the process, it creates and delivers value to targeted customers at a profit. It is grounded on high quality customer related data and enabled by information technology” (Buttle, 2009, p.15). This definition was chosen due to its novelty and its shows the strategic use of CRM within the whole company. The definition was also chosen due to the fact that Buttle (2009) adds the important component of information technology which in previous definitions had not been discussed.

The logic behind customer relationship management has made companies shift focus from a product-focus into being customer-focused when doing business (Hillebrand, et.al., 2011., Navimipour & Soltani, 2016). This customer approach allows companies to be more individualistic and attentive to each unique customer, and in return increase the company's profit (Takur & Workman, 2016). The idea behind customer centricity, as it is also called, is that companies should recognize that customers are different and to only target the customers where the marketing efforts will pay off (Ascarza, Ebbes, Netzer & Danielsson, 2017). “As the competitive landscape becomes more extensive and the resources of companies become more constrained, it is not rational to address all relationships in the same manner” (Takur & Workman, 2016, p.4096).

Managing customer relationships effectively will boost customer satisfaction as well as retention rates according to Chen and Popovich (2003). CRM helps companies achieve customer loyalty by accessing measures such as repeat purchases, dollars spent and long-living. CRM can help companies in answering questions such as “what products or services are important for our customers?” or “how should we communicate with our customers?” (ibid). According to Mithas, Krishnan and Fornell (2005), there are three ways in which CRM will have an effect on customer
satisfaction. Firstly, CRM applications enable customization of offerings to customers. This is done through processing information that is left by each customer to discover patterns. Secondly, CRM systems also make it possible for firms to improve the reliability of the consumption experience for the customer. Lastly, CRM systems can help companies to achieve a more effectively customer relationship (ibid)

2.3.1 E-CRM
The growth of the world wide web has today become an important factor in the business community and everyday life. The internet is seen as an opportunity to reduce customer-service costs, strengthen customer relationships and the most important to personalize marketing messages enabled by mass customization (Navimpour & Soltani, 2016).

Phan and Vogel (2010) state that these constant advances in technology has created new ways for companies to gain competitive advantages through strategic positioning and operational effectiveness. Operational effectiveness can be attained by cutting cost operations, by having better technology, better people, better processes, better inputs, and better management. The authors also states that strategic positioning can be described as delivering value better than ones competitor (ibid). This competitive advances can be obtained by an increased effectiveness of the E-CRM (Navimpour & Soltani, 2016).

Navimpour and Soltani (2016, p. 668) describes E-CRM as “a collection of concepts, tools and processes that allows and organization to obtain the maximum value from their e-business investment”. The success of E-CRM within a company has been shown to depends on the strategy of implementation by the organization (ibid).

E-CRM has emerged as one of the most prominent information systems for relationship management according to Navimpour and Soltani (2016). As the relationships progress in stages, technology can automate, maintain, and exploit it from the beginning of the relationship and forward. In customer management a E-CRM system can be a repository of customer information, which contains customer profiles (Phan & Vogel, 2010). E-CRM’s aim is to intelligently manage customer lifecycles within three stages; acquiring customers, increasing the value of the customer and retaining loyal customers (Navimpour & Soltani, 2016). How E-CRM differentiate from a traditional database is that it has the capability to analyse and offer personalized offers or marketing for each unique customer (Phan & Vogel, 2010).

2.3.2 How is it used today?
CRM systems are as discussed associated with economic benefits, efficiency and satisfied customers (Hsieh, Rai, Petter, & Zhang, 2012). Several researchers have demonstrated that CRM systems do significantly improve customer relationship performance (Soltani & Navimipour, 2016). CRM systems can also be used for the
employees benefit as well, since it provides information and support that help the employees’ make appropriate decisions (ibid).

CRM systems is a complex and sophisticated application that collects customer data from customer touch points, creating a single and comprehensive view of the customers, as well as predicting purchasing patterns and the key customers (Chen & Popovich, 2003). CRM applications link front office (customer service, sales and marketing) and back office (operations, financial and logistics) functions with the firms customer touch points. Examples of the functions of CRM systems are; sales force automation, data warehousing, data mining, decision support and reporting tools (Soltani & Navimipour, 2016).

CRM systems can be divided into three different fields; Operational, Analytical and Collaborative (Khodamarami & Chan, 2014., Soltani & Navimipor, 2016). Operational CRM systems aim is to improve efficiency and productivity by automating CRM processes. Analytical CRM systems incorporates various analytical tools such as data mining, data warehouses and online analytical processing, known as OLAP. These tools are used to better understand individual customers behaviours and needs by building behaviour predictive modelling, and purchasing patterns. Collaborative CRM systems manage the communication channels and customer interaction touch points, such as; company website, email and customer portals.

2.3.3 Data Mining
Data mining has been described as the backbone driving CRM systems (Soltani & Navimipour, 2016). Data mining is the process of discovering hidden pattern and gather information from existing data. In other words in CRM it is a useful tool in extracting knowledge from complicated customer data, it is helpful to identify customer demand accurately and promote customer value in an effective manner (Gouzheng, Yun, & Chuan, 2006). Through data mining CRM has access to stronger functions such as customer segmentation and customer relationship lifetimes (Soltani & Navimipour, 2016). Data mining within CRM can enhance companies competitive advantage by being able to understand customer needs, improve satisfaction among customers, promote profitability as well as quotes on the market (ibid).

CRM can provide substantial competitive advantage to most firms (Bose, 2002). However, as implementation of such systems increase, the less of an advantage it will be. The next logical step then become to extend the technology. Bose (2002), argues that the benefits of CRM is nothing set in stone, and implementing it into an organization requires a “leap of faith”. Companies that are the most successful at delivering what each customer wants are the most likely to be the leaders of the future (ibid).
2.3.4 Customer Knowledge Management

Knowledge management is the knowledge a company has about the customers, an constantly improving and sharing through the organization to add value to every part (Soltani & Navimipour, 2016). The concept of Customer Knowledge Management is the process of using information technology (IT) to collect, store, and share knowledge about customers. Knowledge Management has been shown to have a positive impact on reducing costs and increasing revenue (ibid).

Customer knowledge management, or CKM as it from now on will be mentioned as, provides the firm with valuable information about their customers. A CKM system can gives the possibility to recognize within the market, and also increase competitive advantage (Arazpoor & Meymand, 2015). CKM should be beneficial for both the firm and also for the customers by getting, sharing, but also disseminating knowledge of the customer (ibid). CKM is an important concept for companies in the way that the system provides data about what the customers want and not what the belief of the want is from the company's side of view. By working with CKM companies can use the information about their customers for service improvements and its relationship with their customers (ibid).

2.4 Artificial Intelligence

According to Russell and Norvig (2016), Artificial Intelligence is the newest field in science and engineering. The work on AI (short for Artificial Intelligence), started already after World War II in, and the phrase Artificial Intelligence was composed in 1956. The field of AI research is built around many other disciplines such as philosophy, mathematics, economics, neuroscience, psychology, linguistics, and computer engineering (Russell & Norvig, 2016). AI research has many sub-fields, from the general field of learning, to the more specific of learning machines to manage certain tasks as playing chess to diagnosing diseases. “AI is relevant to any intellectual task; it is truly a universal field” (Russell & Norvig, 2016, pp.1).

The definition of AI can be divided into four different approaches; thinking humanly, acting humanly, thinking rationally and acting rationally. One definition by professor John Haugeland from 1985 defines AI as a new field of science with efforts to make computers think, and will therefore literally have minds. This is one approach of defining AI which refers to the approach of thinking humanly (Russell & Norvig, 2016, p. 2). Another definition by Kurzweil refers to the approach of defining AI as acting humanly (ibid). A definition that refers to machines thinking rationally was coined in 1992 by Winston which sees AI as machines being able to reason (Russell & Norvig, 2016). Nilsson (1998) referred to AI as machines being able to act rationally. Although, AI can be seen from different approaches, the first definition of AI was formulated 1955 by John McCarthy; “The science and engineering of making intelligent machines” (McCarthy, 2007). This definition is also the chosen one to use for this thesis for the reason that it is the first definition formulated.
John McCarthy started his research in 1956 and proposed the name Artificial Intelligence for the area of research (Tecuci, 2012). In 1958 McCarthy made a big contribution to the field of computer science by defining the high-level language of Lisp, which became the most prominent programming language in the field of AI for the next 30 years (Russell & Norvig, 2016). According to Russell and Norvig (2016, p. 19); “it is remarkable how much of the 1958 paper remains relevant today”. Together with John McCartney another man have had a huge impact on the development of AI. Alan Turing is known as the father of theoretical computer science and Artificial Intelligence. He gave lectures on the topics as early as 1947 and three years later wrote an article called “Computing Machinery and Intelligence” where he introduced machine learning and the Turing test (Russell & Norvig, 2016).

Despite the successes in the field of AI some of its early founders, John McCarthy, Marvin Minsky, Nils Nilsson, and Patrick Winston, has expressed a discontent with the progresses and the focus in the field (Russell & Norvig, 2016). The early researchers feel that AI research has too much focus on creating ever-enhanced versions of applications that are good at specific tasks, such as; chess and recognizing speech. Stating that they instead would have liked to see more focus being put into the roots of AI; creating machines that think, that learn and that create (Russell & Norvig, 2016). The early researcher are not alone in these expectations of the field. According to Tecuci (2012), the early successes in the field created an enthusiasm and expectations that AI will create machines that learn, think, and create at levels that are surpassing human intelligence. However, these attempts has so far ended in failure, this due to the lack of extensive knowledge that would be needed by the machine (ibid). Throughout the years of computer since the focus has been on algorithms which has today shifted into being more worried about the data. This is due to the increasing availability of very large data sources, such as the web with trillions of English words and billions of images (Russell & Norvig, 2016; Tecuci, 2012).

2.3.2 The Fields of AI

The scientific goal behind AI support many existing goals in the field of engineering such as developing intelligent agents, making working with computers easy as working with people, and developing human-alike-machine systems that exploit the complementariness of human and automated reasoning (Tecuci, 2012). The field of AI are active in multiple of different branches. Below the reader can find an overview of what fields AI are most active within today:
To receive an overview of what AI can do and where people can meet AI in everyday life, will three well known fields within AI be presented. Firstly, machine learning which is a basic part of AI. Machine learning uses observed data to improve and develop methods for computers to improve performance (Ghahramani, 2015). Ghahramani (2015) describes that machine learning can handle more complex tasks as for example decision making. When discussing AI, big data is a big topic within the field. Big data by itself is useless on its own but with the use of machine learning it can provide important information for companies. With the help of machine learning big data can be elaborated and missing or latent data can be founded (ibid). An example of a well-known company who uses machine learning and big data is Netflix (Bughin, 2016). Netflix has used big data to improve its content to provide their customers with recommendations of movies (ibid).

The enormous amount of available information enforces the development of the next field within AI that will be presented; Information extraction (Pazienza, 1999). Pazienza (1999) describes that this type of technology within AI provides access only to those documents needed and the relevant ones and also integrates the information into environment of the user. Some places where you can find information extraction as a tool is for example, when a company needs to gather specific detailed information and the information is located electronically, and if the data is located in private databases (ibid).

Thirdly, we have natural language processing. A concrete example of this type of AI is language translation. This type of tool is used by translators who uses example given by the machine, to achieve a high-quality translation. Systems such as Google translate, are one type of machine translation that is used by human translator to ease their own work (Green, Heer & Manning, 2015).

2.3.3 Criticism of AI
As many other developments of technology AI have met both positive and negative responses. Russell and Norvig (2016) states that technologies such as AI often receives
intended negative side effects. Along with the development of AI new worries among the technology also arose, such as loss of jobs. However, the fact is since AI programs arrived, more jobs than ever have been created. AI is designed to be an intelligent agent to assist the human. Russell and Norvig (2016) also states the worries among lost in leisure time. However, the development of AI programs forces people to work harder, but also that the AI solutions could allow us to take some time of (ibid).

The loss of uniqueness in people, Russell and Norvig (2016) counter argues that humanity have overcome battles like this before in sense of uniqueness. The last but also maybe the most discussed outcome of implementing AI is the success of AI might mean the end of the human race. Russell and Norvig (2016) raise the problem about technology and its development, however, also mentions the fear of AI causing harm if it got in the wrong hands. The authors also points out the question regarding development of AI which could be more dangerous than normal software (ibid). The risk of AI can be divided into three different categories; first risks that can come with an AI solution can also be made by a human, second; the machines never gets more aggressive or smarter than me make them, and thirdly; the AI:s gets to intelligent and begin to learn new functions that can lead to an unintended behaviour. Overall, the work with AI are developing fast and will probably for a long time, we may not like it, but from this moment we might have no choice (ibid).
2.5 Conceptual Framework

The literature review has developed the subjects of Born Global, CRM, AI and the adoption of technologies. The conceptual framework found in the figure down below explains how new technologies such as AI and advanced CRM-systems can be adopted by Born Global companies within the e-commerce sector. The technology adoption theories is the link that explain what factors determines an technology adoption process of technologies such as AI. The barriers and drivers influence the decision of if, how and when an adoption of these technologies would occur for a Born Global. In essence, the conceptual framework illustrates how the theories interconnect with each other in this thesis.

*Figure 1 conceptual framework, source own model based on the theoretical framework.*
3 Method

In the following chapter the methodological framework used in order to conduct the study will be presented. The choice of methodology and the approach of the thesis will be argued for and explained why it is appropriate. The research method and design will be presented to provide an understand of how the thesis have been conducted. Thereafter, an explanation of how the data were collected, followed with presentation of the operationalization of the interview question. To finalize a discussion of the quality of the research and the ethical considerations will be presented.

3.1 Abductive Method - research approach

When the research project is selected, it is time to decide how the data will be collected and how the design of the research project will be (Saunders, Lewis & Thornhill, 2016). The research theory is explained as the relation between the theory and the method (Bryman & Bell, 2017). The most common approach to use is deductive theory, where the researcher has developed the theory through readings and the researchers creates the research strategy to test the theory. The theory is through the whole process based on being tested through different propositions (Saunders et al, 2016).

Another approach often used in business research is inductive, according to Taylor & Bogdan (1998) this approaches is often used in a qualitative research. With an inductive approach the researchers builds the theory upon collected data where the researcher have found a specific phenomenon or pattern and the objective is to create a conceptual framework (Saunders et. al, 2016). When using both deductive and inductive research approach there will always be a risk for the researcher to not gain useful data pattern or theory for the study (Saunders et al, 2016).

In a combination of these two approaches a third one has emerged. Instead of starting with theory and then moving to data or the opposite moving from data to theory, abduction are built on a combination of both deductive and inductive (Saunders et. al, 2016). During the process of working with abduction the empirical area is developing and the theory is redefined over time (Alvesson & Sköldberg, 2017). Alvesson and Sköldberg (2017) points out the importance of notice that abduction compared to the other two approaches includes understanding as well.

This thesis will be combining theory and empirical findings, therefore the abductive research method has been identified as the most appropriate approach to use. Since the field of AI and CRM in combination is a new way of working, the need for understanding as the abductive approach states will be of importance (Alvesson & Sköldberg, 2017). Also, the theory will be developing during time when empirical findings are collected, the approach to use will therefore be abductive. The authors of this thesis saw that there had been limited research done into the emerging field of AI.
and its effect on business strategy systems such as CRM. With that in mind the process of trying to understand the field of CRM started as well as trying to understand AI role in how it is evolving. After looking into the subjects the authors began interviewing companies to gain perspective from their reality working with these CRM systems. The authors tried to investigate the barriers and drivers present for companies to adopt the new CRM-systems based on AI, the reason for this is to understand what needs to be addressed before companies will implement AI.

3.2 Qualitative Research - research method
The term methodology refers to the way in which we approach problems and seek answers and in social science it refers to how the research is conducted (Taylor & Bogdan, 1998). The choice of method should be a reflection of the research question, to in the most appropriate way be able to answer the questions asked (Eriksson & Kovalainen, 2016).

Research methodology is traditionally divided into two different fields, qualitative or quantitative (Kumar, 2014). According to Eriksson and Kovalainen (2016), qualitative research is more concerned with understanding and interpreting the field. The authors also state that it is easier to compare qualitative and quantitative methods than to explain them as separate. Eriksson and Kovalainen (2016) states that quantitative method is less used within business research and is used as a complement to a qualitative study, for example to explain something the qualitative results cannot.

Quantitative methods are known to be more structured and formal, it is used when the researcher wants to understand the variations within a phenomenon (Holme & Solvang, 1996). Quantitative researchers should also aim to remain independent of the phenomenon studied, to try to generalize the findings from the study (Lapan, Quartaroli & Riemer, 2012). Whilst qualitative studies tries to immerse themselves in the meanings and specific phenomenon without generalising (Lapan et.al., 2012). Holme and Solvang (1996), states that qualitative methods are therefore used to understand a phenomenon. Qualitative studies are more flexible in their design and begin with only vaguely formulated research questions (Taylor & Bogdan, 1998). The distinction between the two different methods is weather one uses words and visuals, or numbers as units of analysis (Holme & Solvang, 1996).

A qualitative research method has a preference for seeing certain aspects as parts of a wider context, and stresses the importance of multiple existing interrelationships in those contexts (Denscombe, 2010). In this regard, Denscombe (2010) emphasizes the idea of how social realities are to be considered as wholes, and thus not as something that can be fully understood when isolated from their context.

Since this study aims to gain a deeper understanding of the field CRM and the effect AI has on it today and for the future, qualitative method is applied since it will bring the depth needed to answer the research questions. Qualitative research has been
mentioned as being used when theory is not enough to explain a certain phenomenon, or it is at least lacking (Merriam & Tisdell, 2016). Qualitative studies goes into wider depth of the subject than quantitative studies (Saunders et al., 2016). Qualitative studies can also be used to research smaller parts of a bigger concept, such as in this study where barriers and drivers of adoption of AI is looked into as a smaller part of the whole subject (Denzin & Lincoln, 2013). As mentioned in the previous sub-chapter, qualitative studies tend use an inductive approach (Eriksson & Kovalainen, 2016). However, as mentioned before, there is a lack of previous knowledge within AI and the evolvement of CRM from the research point of view. On the contrary the phenomenon of Born Global is extensively research as well as CRM from earlier years. Therefore a qualitative study with an abductive approach will be used since the study will be based both in theory and in primary data to gain a deeper understanding.

3.3 Research Design
The research design is a plan, structure and strategy for investigations in a study (Kumar, 2014). With the plan for the collection of data and analysis, the aim is to obtain the answers to the asked questions. The research design should be an explanation for the readers to understand the steps taken during the study to answer the questions (ibid). The research design can be explorative, evaluative, explanatory, or descriptive (Bryman & Bell, 2017). Authors can also combine several different forms of research design, this allows a study to be both explorative and explanatory as an example (Saunders et al., 2016). Explorative studies classify early on what the problem is, and from there explain what is already known about the area of research (Skärvard & Lundahl, 2016). This strategy is valuable to researcher who are unclear of what is going on in the subject of research. To gain a deeper understanding through an empirical study, the researchers need to design a process to firstly find out what they want to research. The second step is to formulate a theoretically based purpose of why, finishing off with an concluding analysis of the data collected to get the result of how (Jensen, 2012). Explanatory studies usually reside in how questions and focuses on how and why something is happening, and the relationship between different variables (Saunders et al, 2016).

Kumar (2014) states that with qualitative studies as this thesis, there are several research strategies. Strategies such as case studies, focus groups, participant observation and action research, are often referred to as being a part of the qualitative research method (ibid). Case studies research are one of the more commonly used strategies when doing qualitative studies (Skärvad & Lundahl, 2016). The case study both examine the question or questions on a deeper level as well as the natural setting of the respondent (Yin, 2011). Case studies are concerned with understanding and exploring the research subject (Skärvad & Lundahl, 2016). Saunders et al., (2016), argues that it is important to understand the context of which the study is being conducted in. Knowing the boundaries between the study and the context area of the study in any cases might be hard to separate (Saunders et al., 2016). The benefit of doing a case study is the deep understanding that the researchers gains. Saunders et al.,
(2016) argues that the benefit of case studies is the ability to receive answers to open-ended questions such as, why, what and how, that is otherwise more difficult to obtain. There is furthermore four different types of case-studies; single case, multiple case, holistic case and embedded case (ibid).

The explorative design in this thesis resides in the fact that AI as a tool within CRM is a new phenomenon with very limited previous research. As well as the fact that interviews are going to be conducted as in-depth semi-structured interviews with e-commerce companies, as well as “experts” who sell CRM systems with AI solutions (Skärvard & Lundahl, 2016). This will be further discussed in the Sampling Method chapter. This thesis will be as mentioned explorative, this to answer the question of barriers and drivers in this phenomenon. Since this thesis aim to gain a deeper understanding of Born Global e-commerce companies use of AI in their CRM systems and the effect this has in internationalization, case studies has been identified as the strategy to use. Yin (2014) states that case study research is suitable for “how” and “why” questions. Since this thesis main question is a “how” question, this is another argument why case studies is the appropriate choice for this study. Case studies are further divided into single-case studies and multiple-case studies (ibid).

3.3.1 Multiple case studies
As mentioned in the previous part there are four different types of case studies. Multiple case studies, as the name implies, several different cases (Yin, 2014). According to Yin (2014), multiple case studies gives the study a more compelling result and is views as more “robust” (p.57). However, it is of importance that the researchers evaluate all the data received and the companies of which it came from to make sure it is of relevance to the research question (Saunders et al., 2016., Yin, 2014). This thesis will use multiple case studies to be able to study the phenomenon more extensively. Multiple-case studies are the most appropriate choice since there is a purpose to analyse a sector and not just one case, as well as multiple-cases needs to be studied in order to be able to answer the research questions.

Each of the multiple cases which is studied can either be holistic or embedded. Yin (2014) states that the difference between holistic and embedded is dependent on the research question and the field studied. Embedded is when the researcher studies aspects within cases, for example the employees of a company. Holistic on the other hand is when the researchers focus is on studying the whole firm Yin, 2014). This thesis aims to view the cases from an holistic point of view, to view each company or respondent as a single case. This because the study is aimed at a whole sector. The data retrieved from a holistic case is seen as more valuable if retrieved from a key individual of the firm, such as someone with a higher position (ibid). The respondents from e-commerce companies have a manager position where there main subject is to manage marketing as well as the e-commerce part of the company. Therefore they have been able to answer all the questions asked as well as themselves working with the CRM-systems.
3.4 Sampling Method

Sampling within a study is of great importance when conducting a study, this due to the fact that is often even impossible to survey the entire population of the targeted population for a study (Saunders et al., 2016). The main sampling techniques are probability sampling and non-probability sampling, this refers to the degree of generalizability of the results to the target population (ibid). Probability sampling is associated with random sampling which allows the researchers to draw statistical generalization of a sample. It is therefore argued that this type of sampling is not as appropriate in qualitative studies (Merriam & Tisdell, 2016). This due to the fact that qualitative studies aim to gain a deeper understanding of a phenomenon rather than to measure its frequency (ibid). This thesis will therefore use non-probability sampling, and within this technique purposive sampling is the most common (Denscombe, 2010). Purposive sampling is based on the researchers desire to discover, understand and gain insight into a certain problem. This allows the researchers to selectively choose the samples that are going to be a part of the study, this is in turn based on either relevance or knowledge of the issue (ibid).

Based on the arguments presented above, the authors of this thesis have chosen to adopt a purposive sampling method. With this method the authors can select suitable companies and respondents to this study. With purposive sampling there needs to be selection of criteria which are applied in the search and selection of participants (Merriam, 2009). These criteria should reflect the purpose of the study and identify suitable cases for the study. The authors of this thesis has therefore developed the following criteria based on the research questions and the purpose of the study;

The companies must…
1. Be classified as Born Global from the definition chosen in the theory chapter
2. Be e-commerce company working with CRM

OR…

3. Be a company selling or having deep knowledge within CRM systems and how AI is evolving within the sector.

Furthermore the respondents from the company needs..
1. To have an understanding of how the company is working with CRM to be able to answer the questions of this study.

3.4.1 Cases

Based on the criteria above in the section on purposive sampling the authors have identified the following respondents to derive the empirical data from.
Company A
Company A is a small company with around 20 employees in the southern part of Sweden. It was founded in 2014 who had an interest in caps and saw a gap on the Swedish market. He was soon joined by his partner, and today they run the company together. Company A is available in 19 countries through their website, with Sweden being their biggest market with 35 percent of their sales. At Company A we had the privilege to interview an employee which today has a manager role, as well as an administrative role within the financial part of the company.

NA-KD
NA-KD is a Swedish clothing e-commerce company founded 2015 of Jarno Vanhatapio who is today the CEO of the company. The head office of NA-KD is located in Gothenburg but the company sends clothes over the whole world from their platform. The company has around 200 employees and their merchandise is available all over the world. To go international was never a question for NA-KD, since day one the company have worked hard to reach the global market. The authors had the privilege of interviewing Daniel Håkansson the E-commerce and Marketing Manager at NA-KD,

DesignOnline
DesignOnline was founded 2002 of Jörgen Bödmar, the idea was to let people all over the world be able to by Scandinavian design online and today, the company sells to over 70 countries. DesignOnline had the intention of going international already from the beginning, and understood that they have to reach a bigger market to reach more customers. Robin Ålander who is managing the e-commerce and marketing department of the company is well known of the customers and sales of the company could provide valuable information at our interview together with him.

The CRM "Expert"
The expert company is one of Sweden's five biggest customer relationship management companies and are today located in seven different countries. The vision is to create a better and easier customer relationship management solution that helps employees within the company and also to create strong and loyal relationship with the customers. The authors had the privilege to interview one of their managers who had great insights to the subject of this thesis.

3.5 Data Collection
To conduct an empirical study collection of data is needed (Yin, 2011). Data can be both in the form of concrete and measurable, such as sales numbers, as well as intangible, such as feelings and perceptions (Merriam & Tisdell, 2016). Data can be categorized into two different forms; primary data and secondary data (Kumar, 2014). Eriksson & Kovalainen (2016), describes the division between the two as primary data is research-gathered or research-designed data, and secondary data as pre-existing data. Depending on what data is to be collected and the method to be used to answer
the research question, the analysis might be treated differently as well as the collected data (ibid).

Kumar (2014) divides the collection of data into three different methods; observation, interviewing and questionnaire. There are favourable and unfavourable factors to either method of data collection. The method of choice depends on what the purpose of the study is and who one's participants shall be (ibid). Interviews are a common tool of data collection in qualitative studies (Saunders et al., 2016). It is a favourable method due to the fact that it captions the perception and reality of the respondent (ibid).

Ghauri and Grønhaug (2010) consider that primary data will provide more relevant information regarding the chosen phenomenon or research problem. This is why this thesis will use mostly primary data for the analysis. The purpose of this thesis is to gain a deeper understanding in the field of CRM and the usage of AI within that, and taking into consideration as well that the method of this thesis will be qualitative. To understand the respondents perspective of the field, interviews has been identified as the most suitable choice of primary data collection. Primary data will be our source of data due to the lack of previous research within CRM solutions based on AI.

3.5.3 Structure of interviews
“The danger of too much flexibility are just as obvious as the truth in the argument that to give everybody a shoe of size 8 is to give the same thing to everybody, yet with different effects” (Galtung, 1967, Holme & Solvang, 1996, p.99).

Depending on the purpose of the interview, it can be designed in many different ways. According to Saunders et al. (2016) there are three commonly used categories of interviews: structured interviews, semi-structured interviews, and unstructured interviews, also known as in-depth interviews. A structured interview is based on pre-decided questions which is standardised (Saunders et al., 2016). The way of asking the questions generates high control of both the questions and the answers, though it limits the way of answer for the respondent (Denscombe, 2010). This type of interview is often related as a quantitative research interview (Saunders et al., 2016).

Semi-structured interviews are based on a couple of key-questions. The structure of the interview and the use of the questions differs between time and interview. This means that you make a question-adopton depending on who your respondents will be (Saunders et al., 2016). Even though semi-structured interviews provides freedom for the interviewer Saunders (2016) suggest: “additional questions may be required to explore your research question and objectives given the nature of events within a particular organizations” (Saunders et al., p. 391, 2016). This type of interview will most truly open up for more discussions. Unstructured interviews, also known as in-depth interviews are informal interviews with no predetermined questions, however,
the interviewer have from the beginning a clear picture of what he/she want to explore by doing the interview (Saunders et al., 2016).

The field of AI and CRM as a combination is a quite unexplored area for researchers, therefore, the need for understanding of attitudes and opinions of the respondents will be of highly importance. To be able to gain this type of understanding, semi-structured interviews will be the most appropriate method to use (Saunders et al., 2016). This type of interview approach give the respondent the ability to explain or “build on” their answers (Saunders et al., 2016, p. 394) which will be valuable for this research. Saunders et al. (2016) also states that semi-structured interviews can make the respondents think out loud and discuss new fields. As stated before within this field of this research there is lack of academic research, therefore this will be of importance. The respondent will give more deep answers about the subject and this type of interview will generate very detailed data which will make the content of the empirical findings interesting (Ibid).

3.6 Operationalization
Jacob and Furgerson (2012), states that it is of importance to have a literature review that aligns with the interview questions and needs to be addressed when creating an interview guide. This is necessary in order to give the researchers knowledge of what has already been researched and therefore, what questions should be asked during the interviews (ibid). The conceptual framework should be connected to the real world and to the area of research (Patel & Davidson, 1994). According to Skärvad and Lundahl (2016) this type of clarification of concepts are necessary for a qualitative study. Furthermore, the concepts used in the thesis has been operationalized and the interview guide were made to were each set of questions is suppose to answer the research questions stated in the problem definition. Since there is two different types of interviews done in this thesis, with e-commerce companies and a company selling CRM solutions, there will also be two different tables of operationalization.

3.6.1 Operationalization 1 for Interview with e-commerce companies

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Interview questions</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company and respondent profile</td>
<td>3-4</td>
<td>These two questions were asked to gain a more general view of the company, as well as determine the position of the firm and gather information about experiences the respondent had within the field. These questions also concerned the company’s position within the international market.</td>
</tr>
<tr>
<td>Born global Internationalization:</td>
<td>5-7 &amp; 21</td>
<td>To gain a winder understanding of the company and its establishment on the international market straight from its birth and how or if the internationalization process would be affected of the advancements in today’s technology. The reason were also to gain knowledge about the level of competition and challenges within the e-commerce sector on the international market.</td>
</tr>
</tbody>
</table>
The reason behind these questions were to get an estimate of how the company are working with CRM. The questions were also asked to uncover the participants feeling towards the current CRM systems in place at the company and if there could be improvements.

Questions were asked about the respondents if or how the company were working with AI today and the reason behind the advanced technology. The reason were to get a great understanding of how the company was working within the field of AI and the reasons behind it. The questionnaires were designed to outline the firms relationship to AI.

Questions relating to barriers were asked in order to gain an understanding of what are preventing companies from implementing advanced technologies, such as AI, into their systems. Question 19 the respondents were specifically asked about what barriers were perceived for adopting AI into the company. A general question about the respondents perception about AI were also asked to identify if that could be an underlying barrier.

This sector was conducted to get an overview of the drivers for the company within the field of AI-solutions for CRM-systems. A question were asked to investigate if competition could be a driver of adoption of advanced technology such as AI. Furthermore, a general question regarding companies intention to adopt technology were asked.

The first two questions are general and asks the participant if he or she wants to be anonymous and if they are comfortable with being recorded. The reason behind these questions is to follow the ethics of interviewing and giving the participant an opportunity to express themselves freely. Question 23 asks the respondent if there is anything he or she would like to add to questions previously asked or in general. This to assure that there are no loopholes left uncovered.

### 3.6.2 Operationalization 2 for Interview with CRM experts

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Interview questions</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company and respondent profile</td>
<td>3-4</td>
<td>These two questions were asked to gain a more general view of the company, as well as determine the position of the firm and gather information about experiences the respondent had within the field. These questions also concerned the company’s position within the international market.</td>
</tr>
<tr>
<td>Internationalization</td>
<td>5-7, 14</td>
<td>To get a winder understanding of the company and its establishment on the international market. The reason were also to gain knowledge about globalizations effect on CRM.</td>
</tr>
<tr>
<td>CRM</td>
<td>7-12, 17.</td>
<td>The reason behind these questions were to get an estimate of how the company are working with CRM and the solutions they are selling. The questions were designed to uncover the benefits of CRM-systems.</td>
</tr>
<tr>
<td>AI</td>
<td>10, 12-16</td>
<td>The respondents were asked if or how the company were working with AI today. Questions were asked to explore the benefits of AI and what solutions are available. The questionnaires were designed to outline the firms relationship to AI.</td>
</tr>
<tr>
<td>Technology Adoption Barriers</td>
<td>12, 16.</td>
<td>Questions were asked to gain an understating on the limitations of AI and the barriers that might hinder companies from choosing AI-solutions.</td>
</tr>
</tbody>
</table>
3.7 Method of data analysis
The most common way of analysing qualitative data is by using the thematic analysing model (Bryman et al., 2017.; Sauderns et al., 2016). The method is based on finding patterns and or themes that is collected through the research (Bryman & Bell, 2017). It is of highly importance to sort the data founded in the research to be able to get explanation and answer the research question (Ryen & Torhelle, 2004). The thematic method also allows the author to make an outline of the data from transcripts and notes (Saunders et al, 2012). Making a framework, matrices, or collecting data, are other methods used to collect data (Bryman et al, 2017.; Yin, 2014). The reasoning behind the choice of data analysis relies in the fact that the authors wanted to study a whole sector and see the patterns within that sector of how they view implementing AI into their CRM systems.

The data from this research have been analysed in a few different aspects, for example if they are e-commerce companies, if they straight from birth wanted to go global and in that case are qualified as a born global company, if the company are working with CRM or if the company have considered using an AI solution within the field. Also, the patterns of drivers and barriers towards AI was analysed and answered how they overcome eventual challenges. The data collected was also analysed in relation to the theory presented above to investigate if the patter of the use of AI in CRM was founded.

3.8 Quality of research
The quality of the study conducted is determined by the factors of reliability and validity (Saunders et al, 2016). The notions of reliability and validity is in this chapter further elaborated to outline what affects the quality of the research.

3.8.1 Reliability
Reliability refers to the degree of standardization in the process of collecting data (Skärvard & Lundahl, 2016). Would the used instrument of research provide similar, consistent result if used repeatedly under similar conditions (Kumar, 2014). Merriam and Tisdell (2016) argues that reliability in social science is rather complex due to human behaviour not being a constant. Therefore the argument that a different author
would provide the same results is not a given, since the collected data can be interpreted differently from person to person. However, this does not discredit findings from a qualitative study as the same data interpretation can yield numerous interpretations. Kumar (2014), therefore argues that the reliability of a qualitative study should be measured based on whether it is dependable and verifiable. This can be done by thoroughly presenting the methodology procedures of a qualitative study, to let the reader understand how the results were obtained and how the conclusion where drawn (Denscombe, 2010).

To confirm the reliability of this thesis the authors have presented the methodical procedure in a well-defined and distinctive manner. This has been done to give the reader a clear understanding of the method used to gather the empirical findings and how the thesis conclusion is a result of these findings. Every interview in this thesis was conducted in a verbal manner and recorded through audio, this to let the authors transcribe the interviews as base for the empirical part of the analysis. The empirical data in this thesis is therefore documented in both raw text and audio. There is furthermore an interview guide (Appendix 1.2, 1.3), to let the readers get a full insight of what subjects was discussed during the interviews. However, since the primary data is based of semi-structured interviews no interview is identical to another.

3.8.2 Validity
Validity is the process of verifying the collected material and provide it with credibility. Together with reliability it determines the quality of the research material conducted (Saunders et al, 2016); Ghauri & Grønhaug, 2010), describes validity as to which extent the operationalization measures the investigated concept. The authors also states that validity can be presented as either internal or external. Internal validity can be described as the casual relationship found between two variables, if something happens with one it will affect the other as well (Saunders et al., 2016). The difficulties when doing a qualitative study is to find the correlation since there is no technical analysis made, and therefor validity needs to be adapted in a qualitative study (Ghauri & Gronhaug, 2010). External validity is on the other hand described as to which extent collected study results can be generalized (Saunders et al., 2016). External validity is concerned with answering the questions if findings form one interview or observation can be applied to other cases (ibid). Yin (2014), argues that generalizability from case studies can be achieved through analytical generalization. This means that a case study is not statistically generalizable to a population, but can be generalized to theory.

There are steps to take to give the reader a perception of the thesis validity. One of these steps concerns the respondent validation, this involves making sure that the researcher has interpreted the gathered information presented by the respondent correctly (Denscombe, 2010). This allows the respondent to validate and do a factual check-up of the data and findings, and in that manner can validate the researchers interpretation. Another step to increase the validity of the study is through triangulation. This a method that involves examining and analysing the same set of
data through different perspectives to obtain a better understanding of it (Kumar, 2011).

For this thesis to achieve validity, the authors decided to let the respondents revise the interpretation of the gathered data. By using *respondent validation*, the authors could ensure that any possible misunderstandings were removed from the thesis. This is of great importance for this study since it is a relatively unexplored phenomenon studied and misunderstandings may arise. Since the interviews were conducted in Sweden and has later on been interpreted into English for use in this study it was therefore sent to the respondents to eliminate misunderstandings. However, for the ethics of this thesis, which will be further discussed in the next part of the chapter. The data gathered has as well been interpreted separately, this to use different perspectives to understand the data. Through triangulation the thesis can ensure the interpretation of the data is valid.

3.9 Ethical Considerations
Ethical considerations need to be considered throughout a research project (Saunders et al., 2016). Merriam and Tisdell (2016) states that the validity and reliability of a study depends on the ethics of the author. It is up to each researcher to proceed in as an ethical manner as possible (ibid). In regards to qualitative studies, different ethical considerations may arise in regards to the data collection and the interpretation of the findings (Merriam & Tisdell, 2016). It is of importance that the authors is transparent with how the research has been conducted, as well as what is going to be studied. There are four different standard measures that the researchers is expected to take into consideration when conducting a study (Denscombe, 2010). These are that the participants should be able to stay anonymous, the data will be treated as confidential, the participants of the study should understand what the research is about and their involvement, and lastly, the respondents participate by their own will and not by force (Denscombe, 2010.; Kumar, 2014).

The authors of this thesis has been transparent by presenting the method used in this study as well as being clear in the pros and cons of each method used. In the interviews with the respondents the were offered to be both anonymous as well as to not be recorded for the purpose of the data not being able to be traced back to them. This to let the respondents speak freely and to let them participate on their own terms. The respondents and their companies where informed of the purpose of the study before accepting to be a part of it. In the beginning of the interview, as well as during, concepts were explained to the respondents to reduce any misunderstandings. The respondents also received the questions before the interview, this to make sure they were fully aware of the purpose of the study and for them to feel fully comfortable with participating. However, further questioning outside the written questions where done to fit each companies situation surrounding the subject.
4. Empirical findings

In this chapter the empirical data will be presented. The empirical data has been collected through interviews. Presentation of the cases can be found in the previous chapter under data collection. The chapter has been divided after each individual case, which starts with “Company A”, then NA-KD, DesignOnline, and lastly the empirical findings from the interview with the “CRM Expert” is presented.

4.1 Company A

Company A was founded in 2012 and one year after that the founder met his partner, who was the respondent for this study, at an incubator for entrepreneurs and they started to build the brand together. It took a few years before the founders started to expand the company, and now they are about 20 employees at the company and the goal for the year is to have about 60 000 000 in revenue. The internationalization process of the company went very fast according to the respondent. The respondent estimates that it took two to two and a half years after they founded the company they were out on the international market. The respondent also stated the importance for the company to go international from the beginning. The founders knew that with such a niche product line Sweden was to small, the company needed to reach a bigger market and a wider customer base, and the answer was to go international fast. At the moment the company have 19 online based stores in the same amount of languages, but sell all over the world. The reason behind the choice of countries are stable economies with customers that is ready to pay more for quality. The respondent describe that Company A sell 65 percent internationally and their biggest markets are Germany, Finland, The Netherlands, Norway, and America.

The entrepreneurial spirit were there from the very start, both the founder and the respondent have had their own companies, the expansion was never a question and the willingness to make the company grow was clear from the very start. The respondent also states in the interview that he never really understand why a company would not go international. The respondent states the possibilities and the challenges with the globalization of the world and the belief is that it enabler for SME’s, as for their own company with a very niched product. Challenges or threat companies might face on the global market for example China who have the possibility to send goods all over the world for almost no money at all.

The respondent explains that the goal is to always provide a website that have a local look. It is conveyed that there is a problem about with the usage of different language on websites within the e-commerce sector internationally. The level of education within language is a big challenge for many countries where it is relatively low, the respondent also states that the request for employees with good knowledge in language has great demand within the e-commerce sector. When asked about if Companies A customers are long term or short term, the respondent answer is that is hard for the company to decide whether the customers are long term or not. This because of the
young age of the company and the rapid expansion makes most of the customers new and by that not long term customers.

The respondent stated in the interview that the company is working with customer relationship in a couple of different ways. The company provide the customers with newsletter about new products and products recommendations that matches the last purchase of the customer. The company was also working with sending the customer discount checks to their customers, to entice them to make re-purchases and to become loyal. The respondent also stated that the company for a while discussed to implement a loyalty club for the customers, however the issue is that the company right now do not have a strategy for the process of the implementation.

When asked about if the company are analysing their customer data the answer was that Company A are working with analysing the data, but not enough. The respondent describes that the company are working with a new CRM-system that is able to map the customers and also see what kind of questions are frequently asked by the customers. The respondent also stated the issue that the company spend time analysing data, but not enough. The problem conveyed by the respondent also relies in the lack of knowledge of what data the company would actually need, even though the need of it is probably there. The respondent explained that the CRM-system used at the moment have facilitated the contact with the customers via mail, as well as the pattern of how the customers have reacted on the newsletters.

The respondent stated that AI would bring advantages with the reasoning that it can provide both customers and companies with direct answers. Another reasoning by the respondent is that certain functions within AI technology is not something a human always can do, for example a bot. The respondent connected the vision of AI to chatbots. The belief is that the company could gain many advantages with example the issue with language as was presented before. A chatbot could be of help with answering questions by identifying easier phrases. The respondent also stated that a chatbot was something that the company were planning on implement within a short time period, to provide the customers with fast responses and pay attention to the customer that their message has been received. However, the respondent also stated in the interview that there is a belief that an implementation of AI would facilitate an internationalization process. The respondent argued that if the possibility of an AI providing text and translation were available, then the development of AI as well as implementing it would go fast.

The respondent stated a trend seen that many e-commerce companies are now working with CRM based services and that a continual increase of usage of that kinds of advanced technology. The respondent also states the fact that the company are spending more time and money on advanced technology based solutions to gain more competitive advantage. The importance of knowing what the competitors were investing in was a crucial factor for the company as well, and the respondent stated ‘‘if
our biggest competitor would invest in high technology solution, we would probably do the same within a week’’. It is of importance to always be updated on the latest solutions and that this kind of investments often is appreciated by the customers. This was one of the reasons why the company have decided to invest in different automations. Even though the respondent highlighted the possibilities with high technology solutions, there might be worries among the customers not knowing if its a bot or a person they are talking to.

The respondent also explain that the use of AI within the CRM-system would help the company to save time when providing customer support and to recommend products for future purchases. The respondent can also see some barriers of implementing AI, where a lot of companies are working with systems where AI is hard to implement. This makes the implementation of AI into a larger project, because companies might have to change their whole CRM-systems. Companies might be facing a hard time with teaching the employees how to use the systems, was a barrier discussed by the respondent. Also the fact that any companies may be stuck in the situation ‘the system we have today works fine, how can they know that a new system will work even better?’

4.2 NA-KD
NA-KD was founded by the serial entrepreneur Jarno Vanhatapio. The respondent Daniel Håkansson who is the e-commerce and marketing manager at NA-KD has been with the company since the start two and a half years ago. Håkansson estimates they are around 200 employees but with their rapid growth he is unsure of the actual number. NA-KD focuses on fast fashion, social media and to be trend sensitive, the focus is mainly on their own brand according to Håkansson. NA-KD has the ability to ship to 180 different countries but they do not focus on all of them, rather around 20 markets is where they put their main focus. Their biggest markets are Norden, Germany, Great Britain and Holland, however the company will put extra focus on USA as a market next year. That Germany is one of their biggest markets can be seen in the fact that Håkansson mentions Zalando as one of their competitors. Daniel Håkansson argues that to be large on the Swedish market was never their focus but rather to focus on the international market right away, that can be shown on their website since they only have one website in english. “Our global mindset is the basis for our company” states Håkansson. NA-KD will therefore invest in making the website into many different languages and this is what is going to be their biggest challenge in the near future. However, Håkansson argues that due to NA-KD being a smaller company it will make the process easier as well as the fact that they have most of the functions in-house.

Daniel Håkansson describes that NA-KD main focus at the moment is to get new customers due to their novelty on the market and their aim is to continue to grow. However, next year’s goal will instead steer them in the direction of retention of “old customer” and what Håkansson describes as one of the most important Key Point
Indicators (KPI); to measure customer-lifetime-value. Due to their rapid growth, the company has grown out of their current CRM-system and is looking to adopt a more advanced system that will let them work with all 15 different touch points (Facebook, Instagram, e-mail). This to be able to reach the customer where they have the biggest chance of connection based on that customers behaviour. At the moment the company analyses a lot of its data manually, however would like to be able to do it automatically with a more advanced system. The commerce and marketing manager describes that the data today is presently used for two different strategic decisionings, firstly they use it to allocate their budget and look at what markets to focus on. Håkansson describes that he thinks that it is out of comfort and that it is quite a large project that keeps companies from investing in new CRM-systems. The e-commerce marketing manager also argues that it is a costly system, but that CRM-systems is one of the more robust systems for e-commerce and that it bring a lot of benefits.

Daniel Håkansson only sees possibilities for companies to invest in AI, and describes what is seen as a successful AI-based system in the Facebook marketing service which the company use for marketing purposes. The respondents argues that humans will never be as fast as data and this is the benefit of AI based technology. At the moment NA-KD has one AI technology integrated in their website which promotes different products depending on the customers behaviour on the site. One of the goals for NA-KD with their new CRM-system is to be able to pull of predictive marketing that might be based on AI this to be able to adjust the marketing to each customer’s needs and wants. As mentioned before, Håkansson describes that one of their main goals in adopting a new system is to reach the customers where the company would get the best feedback. Håkansson also argues that it would ease the workload if the company would be able to rely more on data and for the machine to do some of the job. The e-commerce marketing managers belief is that this technology would make the company more accurate in their marketing as well as in strategic decisions.

Håkansson believes that advanced technologies such as AI could facilitate an internationalization process for companies. The argument behind this relies in the fact that CRM, weather based on AI or not, could still help companies with marketing efforts. The e-commerce marketing manager also describes that these technologies could have helped NA-KD during their first months and internationalisation by providing more accurate data that would have helped to analyse where to put focus and effort on. The AI based product recommendation that is existing on the company's website is described as very important and useful. Håkansson also describes that the customer service section could benefit from AI solutions as well, as an example in the form of chatbots that could minimize “customer cases” by giving quick answers or suggestions. However, since this is not Håkanssons department it is up to the Customer-services department to decide whether that would be a desirable application.

Daniel Håkansson admits that if a competitor would implement an advanced technology, for example AI, it would be a trigger for the company to advance in their
own implementation. The e-commerce marketing manager also argues that the reason why e-commerce companies want to keep up to date on technology is because of the potential value it could bring. As mentioned before, CRM-systems and AI technologies could make marketing efforts more accurate and would save companies time, efforts and money. Håkansson believes that the biggest barrier towards implementing AI is the same as for companies not adopting new CRM-systems, they are to comfortable in their current system as well as it is seen as “too big” of a project. Another discussed barrier is the fact that Håkansson think it is seen as demanding and difficult.

When asked about NA-KDs founder, serial entrepreneur Jarno Vanhatapio, influence on the culture of innovativeness Håkansson describes that the founder have great influence and created a culture within the company to want to challenge. Håkansson exemplifies that when the new CRM-system is in place a new project begins to find the new system or the new channel, and “settling” is not an option for the company. Håkansson also believes that the companies that will utilize the data available in the best way will be able to “stand out” on the market and gain competitive advantages. The e-commerce marketing manager forsees a lot of changes happening on the market in the forthcoming years.

4.3 DesignOnline
DesignOnline is a company that was founded in 2002 by the entrepreneur Jörgen Bödmar in Kalmar. The commerce and marketing manager Robin Ålander describes that right from the beginning the founder had a plan to internationalize and was not interested in being just a local company. The company was founded due to the demand of Scandinavian interior design on the global market. The company has sites in 10 different languages and sell to over 70 countries, but their biggest markets are the Nordic countries, then Europe and then South-East Asia where they have their second office. Today Ålander estimates that they are around 100 employees but that during peak season they are even more. When the company was started they were seen as the “market disturbance” with only a few smaller competitors, however, the competition on the market has exponentially increased in the last years.

Robin Ålander describes their current CRM-system as many different ones that unfortunately do not communicate with each other. However, the commerce and marketing manager is clear in stating that this is not due to the systems not being able to, but that the systems are not being used for it, and the company are looking for companies to solve this “seamlessly”. The lack of automation in the current system demands the employees to move data back and forth between systems which is time consuming, as well as making the company dependent on the employees that have certain skills in Excel for example. Analysing the collected data is also something that need a lot of time, and today Ålanders department analyses customer behaviour, customization as well as looking at communication and technical conditions. Ålander describes that he would like to be able to do marketing automation to send out
promotions and so on through their system. However, here DesignOnline has the same issue as mentioned before, that the CRM-systems are able to do that they just do not have enough data at the moment.

The respondent Robin Ålander states that currently DesignOnline is about to relaunch their product-recommendations-function within their website, this is a function which the company used to have but now it is more developed. Ålander describes that the recommendations function will now be able to base the showing of products on what previous products the customer has viewed, and even what colours might be interesting. When asked, Ålander explains that the reason why many e-commerce companies use this function is due to its ease-of-use and it being the most developed function based on AI. With this new system they are also hoping to be able to individualise mailings to be able to fit each customers interest, as well as provide customers with relevant information.

According to Robin Ålander a tool or system that would help DesignOnline is a translation system, to avoid having to create each newsletter or information in 10 different languages. This is a task that takes a lot of time and to reach the amount of customers desired it would not be enough for DesignOnline to overly segment their sendings. The respondent Robin Ålander is also a believer that this function would make for easier internationalisation. Ålander states that with this function they would be able to be available in five more languages.

The respondent Robin Ålander from DesignOnline states that in the field of e-commerce there are each year new buzzwords, such as marketing automation, big data and AI. E-commerce businesses all want to “have” these new systems, however, Ålanders argues that it is mostly all talk and no actual adoption or implementation. Everyone is worried that the competition is doing it but the truth is that no one is.

Ålander argues that the choice to adopt AI or more advanced CRM-systems lies in the fact that it does give satisfied customer which in return generates loyalty. To be able to customize offers and information to customers is valuable, as well as being able to see which are the “best” customer and to be able to apply more focus to that segment. It would also save time and create knowledge within the organization. However, Ålander believes that the customer’s needs to be educated on what AI will bring them and how they are actually used this to minimize medias scare of AI. It is a useful tool that could bring value both to customer and the organization, but if the customers are not ready it becomes difficult and the organization have to hide its work with AI according to Ålander.

Ålander explains that the main barrier for DesignOnline to adopt technologies or develop their current system is due to cost. The CRM-systems are very expensive and for a small organisation as DesignOnline it would be quite a investment to implement new systems. Another difficulty for DesignOnline in implementation is due to the lack
of employees with skills to be able to implement these technologies. The question of what barriers there are to adopt technologies regarding the whole e-commerce sector the answer is that it might be because it is a big project, companies might be several different websites and then it does not become only one project, but as many as sites there are. Both the CEO and the board are fully supportive of development and to keep advancing, however these previous barriers are holding them back according to the commerce and marketing manager Robin Ålander.

4.4 The CRM expert
The expert company classifies themselves and top five biggest CRM companies in Sweden, but as number one in Norway. The company have around 250 employees within the whole company, and their customers are primarily small and medium sized companies. The respondent explained when their company started to work with CRM 30 years ago, CRM was not a used expression, and what CRM is today with its automation makes it totally different from where it started. The respondent explained that the CRM solution sector is highly competitive in the global market where their biggest competitors are Salesforce and Oracle. The respondent believed that the globalization of the world could be a contributing factor to the increased need of CRM systems. The respondent stated that their international customers want to know what is happening with their customers all around the world, and not only within their own country. Efficiency and specialization of sales could be a contributors to the CRM-fields growth. The respondent explained that before sales was about selling on a personal level, now there is different sales processes for companies. The respondent described seeing a trend that companies today internationalize both quickly and early in the development, which leads to an ever bigger need for CRM systems especially in the e-commerce sector.

The respondent explained that the companies newer customers are more looking for specific pieces within a solution and their most popular once were within sales. However, 9 out of 10 customers also choose the cloud function were all data about their customers can be gathered. The company are also offering a customer support service where question asked from customers are handled from different channels and where companies are able to follow up in a professional way. The argument behind why their customers should buy a whole solution is because of the transparency it brings for the sales people. The respondent were also asked the question if the company's CRM solutions create customer loyalty. The respondent stated that the company provide their clients with the tools, but then it is up to the companies to use them well to create customer loyalty.

The respondent described the cost of AI as a big barrier why many have not chosen to implement the technology yet. A belief was that the CRM solutions based on AI are more a “might have” rather than a “must have” for their clients. However, the respondent also stated that the use of AI within the CRM system could be a positive factor for a company’s internationalization process. AI will offers the opportunity for
the companies to creates automated answers and marketing, and the respondent explained it is a big opportunity to creates a stronger loyalty amongst the customers.

The respondent opinion of AI were positive and believe that there will not be fewer jobs because of the technology, only different jobs. The respondent viewed customers choice of sharing data with companies as a barrier that might occur towards using CRM and AI. The respondent explained that none of their current solutions was based on “true” AI technology. However, the respondent also explained that most CRM companies do not have solutions based on AI, but rather on “smart data”. The respondent could only identify two competitor that has real AI solutions Salesforce and Oracle. However these companies customers are mostly large enterprises with a lot of money to spare. It was also explained that AI is a smart solution to package information for the sales people and make the employees more efficient. The respondent also stated that the development of AI is strong and will be very valuable for the sector of CRM.
5. Analysis

In this chapter, the empirical data is analysed by connecting the empirical data to the theoretical framework. The empirical data is also analysed to find patterns regarding the different companies answers and what it conveys for the purpose of this thesis.

5.1 The Born Global Mindset

Oviatt and McDougall defined Born Global company as ‘‘a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sales of outputs in multiple countries’’ (1994, p.49). To connect to the definition by Oviatt and McDougall (1994) it was added that a Born Global company often is identified as SME:s. From the empirical data that have been gathered it is apparent that all the e-commerce companies, Company A, NA-KD, and DesignOnline, meets the criteria of the definition identified in this thesis to be a Born Global company. The authors of this study relates this to the birth of the companies, the time of internationalization and number of markets the companies are available on. All the companies interviewed in this study, even the “expert company” is identified as an small or medium sized company, this due to none of the companies having more than 250 employees. All the companies showed having more than 25 percent sales internationally and internationalized within three years from birth.

According to Oviatt and McDougall (1994) born globals are often identified having leaders with an great entrepreneurial spirit. Hollensen (2016) argues that Born Global firms sees opportunities and do not follow the “traditional picture”. Oviatt and McDougall (1994) also discusses the fact that born global firms straight from birth sees the world as a limitless marketplace. The entrepreneurial spirit could be seen from all of the e-commerce companies interviews, for example from the interview with Company A. Both of the founders of Company A had start-ups of their own before they met at an incubator for entrepreneurs, from where they together created success through their niched idea. Similar entrepreneurial spirit was founded at NA-KD where Jarno Vanhatapio who is one of Sweden's greatest entrepreneurs with businesses such as Nelly, a successful e-retailer, on his resume. DesignOnline founder saw an opportunity on the global market where there was a demand for Scandinavian design, therefore the goal was never to be local but rather to meet a global demand. All e-commerce companies showed having a similar mindset towards internationalization. The respondent from NA-KD said globalization was behind every decision they made. As another example, Company A mentioned that it was never a question for them to go global or not, the company went global because the founders knew with such a niche product, the only possibility to grow was to go international. Company A also questioned why companies would not go international, and that internationalization should be an obvious choice for a company who want the possibility to become even more successful.
Moen and Servaise (2002) states that the time between the establishment and the time when a company starts exporting as being of high importance. According to Moen and Servaise (2002) firms who starts exporting straight from its birth is the most successful in this field. Due to the fact that all of the respondents are representing companies from the e-commerce sector the empirical findings showed that the beginning for exporting could be dated back as early as to the companies birth. The authors of this study identify that all the companies willingness to internationalize as well as starting the process from birth, might be the reason behind the companies successes. This clearly shows the companies willingness to expand and be an actor on the global market.

According to Oviatt and McDougall (1994) it has also been seen that Born Global firms often are technology oriented. Both technologies mentioned in this thesis, CRM and AI, has been viewed as giving companies benefits which could lead to competitive advantages. However, Russell and Norvig (2016), discuss the fact that AI has received a lot of criticisms and people are sceptical of what the technology could do for humanity. Russell and Norvig (2016) do not share this view of AI, and neither did the companies. That the companies are technology oriented can clearly be seen due to all the companies being e-commerce companies and therefore relies on the technology for their business to function. The authors of this study relates their positive attitude towards AI to them being technology oriented companies as well, as their born global entrepreneurial mindset of seeing opportunities. AI were generally seen as a possibility and time saving tools for the all the e-commerce companies, for example to increase efficiency and accuracy in decisions. The CRM expert also saw AI as a possibility, where the usage of AI would not lead to loss of jobs, but rather creating new and different ones. The authors relates this to the companies being in line with taking opportunities and gain competitive advantages from each and every situation, which is the Born Global mindset.

Khanagha et al. (2013) states that when an alternative new core technology emerges it might take several years until it become industry standard and replaces old technologies. This could be viewed in the interview with DesignOnline were Robin Ålander argued that every year there are new “buzzwords” within the field of e-commerce for example AI or Marketing Automation. What Robin Ålander have noticed for many years within the industry, is that it could take years before companies actually starts using the technology but everyone wanted to claim that they are doing it in accordance with these buzzwords. This have been noticed as a barrier towards adoption of technologies of the authors. When the “buzzwords” are circulating around in the e-commerce none of the actors want to be early adopters, however no one wants to be a laggards either. Khanagha et al. (2013) also argues that slow adoption might be due to short term profitability expectations that might not yet be a factor. This was something that was discussed during the interview with the CRM Expert, the respondent argued that there is never a guarantee of the exact same result. Implementing a CRM-system is not a magic solution, it requires knowledge and a strategy to make use of its full potential. The CRM Expert also argued that one of the
5.2 Creating Value for Customers Through CRM
The basic theory of CRM emerged after it showed having an effect on increased retention rates of customers (Winter, 2001). What could be viewed from the empirical findings was that the strategy behind using CRM was to create loyal and satisfied customers, which was in line with a previous study by Hillebrand et al (2011). All the companies believed that CRM-systems would create value and loyal customers, since CRM-systems are the e-commerce companies way of connecting with the customers. CRM was truly seen as important an part of the core business system according to the authors of this study, which is in accordance with how it is being described in theory. The CRM Expert connected the growth of the CRM-sector to the fact that companies internationalize early on, which creates a bigger need for CRM-systems than before.

Navimipor and Soltani (2016) states that CRM is integrated in marketing, sales, customer service and supply-chain within organizations to achieve effectiveness. CRM is described as helping companies achieve customer loyalty by accessing measures such as repeat purchases, dollars spent and long-livity of customers (Chen & Popovich, 2003). None of the companies respondents mentioned that supply-chain was a department that used the CRM-system. An answer to this according to our study is that all the respondents where managers within sales, commerce and marketing, such as their main department of expertise was not supply-chain. It was also evident that the main field companies chose to refer to was marketing, which this study relates to the effect it has on increased sales and in extension revenue. All the companies interviewed had a CRM-system, however the complexity of the system differed between the companies. Company A discussed having a simple system which they were satisfied with, however, the company were looking into developing it in the future. What was also conveyed by Company A was that they did not know how to use the data collected and what data they seek. NA-KD were during our interview searching for new CRM-systems due to their growth and developed needs that no longer fit their current system. DesignOnline showed having the most advanced system at the moment, however, the company did not utilize the system to its full potential. The authors of this study argues that this might be due to lack of knowledge of CRM-systems within the company. This can be related back to the CRM Expert’s words “we give the customers the tool but how the customers use it to create success is up to each and everyone”. However, as stated in the theory by Bose (2002) the usage of CRM will not necessarily lead to success. The authors of the thesis believes that as mentioned above, by just having a system providing them with information, does not necessarily mean that the companies know how to use it. The authors have identified
a need and willingness within each company to fully utilize their systems or upgrade to new ones and develop their knowledge within CRM.

Individualistic marketing is one of the basics of CRM, which came from the change of product focused companies towards being customer focused (Takur & Workman, 2016). The idea behind individualistic marketing is that companies should recognize that customers are different and to only target the customers where the marketing efforts will pay off (Ascarza et al, 2017). The companies interviewed in this thesis conveyed that marketing automation was a tool that was desired due to the possibility that it would generate satisfied customers. The commerce and marketing manager at DesignOnline described it as offering valuable information to customers creates loyalty, which in return create more revenue. This is in line with the CRM Expert which stated that their company’s most popular CRM-solutions are within sales.

Navimipour and Soltani (2016) argues that CRM systems can also be used for the employees benefit as well, since it provides information and support that help the employees’ make appropriate decisions. Two of the e-commerce companies mentioned that they measure different kinds of key point indications that can be collected through data collection systems. It was used to view behaviour of customer to segment them, to make strategic decisions on budget and which locations (countries) to focus on. However, all the companies felt that they did not analyse enough data, and Robin Ålander from DesignOnline stated that he wished all collected data was available throughout the systems within the company. The authors saw a dilemma that some of the companies struggled with knowing how to use the collected data. The respondent from Company A mentioned the problem with knowing what data is actually needed and when it is supposed to be used. The authors of this thesis noticed a lack in knowledge in how to use the systems and the information that is gathered.

Customer Knowledge Management is the knowledge companies have about its customers and then sharing the knowledge through the organization (Soltani & Navimipour, 2016). The companies, even though they did collect data about their customers, did not seem to know if their customers where returning or if they mostly gained new customers. This shows a lack of Customer Knowledge Management from the companies. Another field within CRM is Data Mining which is the process of discovering hidden patterns and gather information from existing data (Gouzheng et al, 2006). In other words in CRM it is a useful tool in extracting knowledge from complicated customer data, it is helpful to identify customer demand accurately and promote customer value in an effective manner. The data mining functions behind each companies CRM-systems was quite unclear and even though the companies admitted to collecting data and segmenting their customers the analysis happened mostly manually at each department. This shows a lack of fully utilizing the current CRM-systems and succeeding in the basic parts of data mining.
Definitions of CRM often relates it to an strategy to manage customer relationships (Kincaid, 2003.; Chikweche & Fletcher, 2013.; Buttle, 2009). What was evident from the interviews done for this thesis is that neither of the companies defined CRM as a strategy but rather as one of the core systems for any e-commerce business. The companies therefore had high expectations of what the systems should be able to do in terms of delivering value and creating loyal customers. How the CRM Expert described the evolution of CRM is in line with the previous statement, today CRM is more of a system rather than a strategy. This answer was observed as the respondents being more in line with the theory regarding E-CRM (Phan & Vogel, 2010). However, the CRM Expert also stated that a CRM-system does not create success by itself, rather it needs to be combined with a strategy for usage. This study identifies that there is a gap between what the companies expect to gain out of their CRM-system and what the CRM Expert described as a strategy that needs to be developed by the companies themselves.

5.3 AI The New Buzzword Within E-Commerce

All the respondents were unanimous regarding the fact that AI is the “next big thing” and all the fields within business are getting ready for some kind of implementation of it. The respondents also explains an understanding that AI solutions are faster than the human being in certain tasks, such as data analysing. The all the respondents saw the positive impact AI could have on their companies right now in alleviating everyday tasks, and it was not seen as a frightening technology. The respondents from the e-commerce companies all showed an interest in obtaining translation programs as a tool within their systems. Translation programs based on AI is a tool that stems from the line of machine learning and natural language processing within the field of AI (Ghaharamani, 2015), the tool is a translating solution to avoid having to translate by manual labour. The tool was desired by the companies due to their fast internationalization process with international customers speaking different languages which made them have to translate newsletters, offers and similar information. The tool would help the companies save money, time and help them internationalize even more. One example of this was discussed by DesignOnline where Robin Ålander stated that if this tool was accessible to them, they would be able to be available in five more languages. The authors of this study relate the desire to have natural language processing to the lack of manpower who speaks many different languages, which either forces companies to employ a large number of people or not to be able to be available in certain languages.

All respondent did agree on the fact that advancement of CRM and AI do facilitate an internationalization of a firm. The argument behind the reasoning for the respondents was again connected back to the tools of natural language processing and market segmentation to be able to provide what the customers want more accurately and faster. As Robin Ålander discussed if language processing was available they would be able to have five more websites. Daniel Håkansson from NA-KD reasoned that these tools would have helped the company in the start of their internationalization to make more
well informed decisions based on analysis from the data. Both NA-KD and DesignOnline are developing their recommendation system available on their websites, this to be able to bring more value to their customers and it was seen as an easy tool based on AI. Another tool within AI that is desired by the companies as mentioned before are marketing automation. Marketing automation was often discussed during the interviews as a highly desirable tool due to the perception that it brings value to the customers in the form of individualistic marketing, at the channel of communication desired by the customer. The authors of this study have identified a need within each company to develop a marketing automation system. This need could be based on marketing automation being a recent “buzzword” within the e-commerce sector which was conveyed by one of the respondents, or that this is the future of marketing, personalized offers over a digital platform.

As mentioned before Russell and Norvig (2016) discuss the fact that AI is a field that has received a lot of positive and negative responses. Russell and Norvig (2016) presents criticisms of AI in the form of worries about loss of jobs, loss of uniqueness in human, and end of the human beings. The result from the interviews showed that none of these worries were seen or felt by any on the respondents. The respondents were more focused on AI as an agent for the employees and as a tool used as a time saver and to be more efficient at work. The authors’ perception of the criticism of AI is that it is more used as propaganda to frighten people by having preconceptions of what machines could be able to do. As discussed in the theory the founders of AI are disconcerted with the development of the field of AI due to their hope of creating intelligent machines that think, create and learn (Russell & Norvig, 2016). This study is in line with what Russell and Norvig (2016) discuss, that the main field of interest right now in AI is in creating tools enhancing the field of business not creating machines superior to human kind. This is a statement supported by the empirical findings of this study as well as the perception the authors of this study has gained throughout the research process.

Discussing the many definitions of AI which often relates to human intelligence, such as Russell and Norvig (2016) who splits definitions between thinking and acting humanly. As mentioned above this is not where AI is today or something that has been seen in this study. This could be a factor why many of the respondents had difficulties separating smart data from actual AI technology. This was instituted by managers of the companies thru replies to the authors questions such as; it dependent on what was meant by AI technologies. The CRM Expert discussed the same subject with the reference that not many companies selling CRM solutions have systems based on actual AI technology. The only CRM companies having AI based solution could be identified in the large enterprises (such as Salesforce and Oracle) whose customers are also large enterprises.
5.4 Adoption of AI and CRM

Oliviera and Martin (2011), stated that it is of importance to understand what determines adoption of technology since it is a tool that enhances the competitiveness of a firm. Han (2010) also states that the long term survivors is those who have a continued use of new technology. This is also showed in the empirical findings where the e-commerce sectors was presented as highly competitive and that there is always a need to evolve and adopt new technologies to keep the firm's competitive advantage. Suebsin & Gerdsri (2009) argues that investment in technology as well as a successful technology adoption could be a solution for competitive advantages over superiors. The respondents in this thesis did agree to that fact that new technologies could give competitive advantage, maybe not in the form of superiority from competition but rather in the form of increase in market presence and bringing value to customers. The respondents were asked about their view of AI and CRM-systems, this due to according to TOE and DOI model the management's perception of a new technology could affect adoption of technology. All of the respondents were managers within the company and had a positive view of AI and the evolution of the technology. All of them saw possibilities rather than boundaries, therefore, the authors of this study argue that the companies within this thesis have accepted the technology of AI and CRM. Suebsin and Gerdsri (2009) define the process of adoption as starting when the selection process beginning, rather than actual usage of the technology. All of the companies respondents convey that they are in a search or selection phase in adopting AI and advanced CRM-systems.

In the theory of TOE it is discussed that the organization's resources could be a factor affecting adoption of new technology (Hoti, 2015). All the respondents agreed on the fact that CRM-systems are very costly and a large investment. Robin Ålander from DesignOnline argues that it might be easier to implement a new system in small organizations, however, the issue for small firms is that it becomes a large investment. This was corroborated by the respondents from NA-KD which described implementation as being “easier” in small companies. Other barriers toward implementation can be referred back to the adoption of technology theories. Such as internal resources in the form of knowledge (Olivera & Martin, 2011). Company A and DesignOnline conveyed that they did not feel that they had enough internal knowledge regarding IT, AI and more advanced systems such as CRM. Another challenge highlighted during the interviews, was the process of teaching employees within the company the new system. This is already noticed by the authors as a problem of other firms, where the lack of knowledge in how to use the implemented systems is a fact. The lack of knowledge could be due to the companies being SME’s. The authors identify a need within the companies to expand their knowledge of technology such as IT to be able to fully utilize their systems.

The authors of this study have identified that both the TOE (Oliviera & Martin, 2011) and DOI (Rogers, 2003) models have accurate statements of factors when
implementing CRM and AI. As mentioned before, it can be seen that the leaders' attitude towards the technology has an effect on the companies' likeliness to adopt new technologies. As well as other internal capabilities such as knowledge and reserve of money, these might be factors influencing adoption. Small organizations might have an ease in implementing new technologies but it is still a large project that is at the core of the organization as well as being a large investment. What the TOE model adds is the effect that industry and competitiveness might have on the adoption of technology (Hoti, 2015). The model also addresses the actual technology itself. How available is it and the characteristics of the technology (Oliveira & Martin, 2011). According to the CRM expert, CRM-solutions based on true AI are not as common as the industry would like to present. This is in line with what DesignOnlines commerce and marketing manager argued that the industry is often more talk and less actual usage. This can be related back to the TOE model where accessibility of the technology is a factor affecting adoption of technologies. The authors of this thesis also saw that ease of use is a driver for technology adoption and development within the companies. Therefore, a concluding factor of this thesis is that the TAM concepts belief of perceived usefulness and ease-of-use might be factors influencing technology acceptance (Suebsin & Gerdsri, 2009). This due to NA-KD and DesignOnline answered that the most implemented AI today is in the form of product recommendations on the website. When asked why these were the most implemented AI technology solutions the answer was that it was the “easiest” and perceived as useful.
6. Conclusion

In the following chapter conclusions from this study are presented and discussed. The theoretical implications as well as the practical implications of this thesis are also discussed. Lastly, the authors present two suggestions for future research.

6.1 Answering The Research Questions

Customers adoption of the digital lifestyle has changed how businesses must work and connect to their customers. The field of CRM was developed to make companies connect to their customers on the digital platforms and has continuously grown through the years. Lately the new “rave” has been about the actual opportunities that AI could bring companies through systems like CRM. Due to the rapid development within the phenomenon a gap has been identified regarding adoption of new innovations such as AI. There is a need to understand what drives adoption of AI for companies trying to connect with their customers on a digital platform. Consequently this research aim has been to answer the following research question (RQ:1) How are Born Global e-commerce companies working towards adopting AI as a CRM solution? To be able to answer the main research question in a more explicit manner we first answer the following sub-questions; (Sub-Q:1) What are the barriers and drivers for Born Global e-commerce companies to adopt AI into their CRM-system? (Sub-Q:2) How do AI within CRM-systems facilitate internationalization?

(1) The first sub-question addresses the barriers and drivers surrounding the adoption of AI into an e-commerce company’s CRM-system. Diffusion of Innovation and Organizational Environmental Theory defines factors that have an impact on adoption of technology (Rogers, 2003.; Oliviera & Martin, 2011). Previous research presented in the problem discussion chapter, mention internal resources as a barrier which limits the scope of development and access to new technologies such as AI (European Commision, 2006.; SAS, 2017). Through the empirical findings the authors of this study could identify barriers and drivers towards the adoption of AI as a part of the CRM-system. The companies expressed a desire as well as a positive outlook towards adopting AI as a technology. The respondents all agreed that what a machine or computer could do, a human being will never be able to do, and that should be seen as an opportunity. The drivers for the companies to adopt AI were identified as competition and the perceived benefits that AI technologies would bring. The perceived benefits were the value AI could create for the customers, which in return creates loyal customers. Competition have been identified as a driver due to companies wanting to be on the same technical level as their competitors. However, it became evident that adoption was not yet a reality due to the barriers present mainly in the form of internal resources. The internal resources that has been defined as barriers are internal knowledge as well as flow of capital. This due to the fact that systems such as CRM is an expensive investment. The authors also identified that the investment in these systems were perceived as more expensive due to the lack of quick return on investment. Another barrier identified in this study was the view that implementation
and adoption of new systems were large projects. Our findings also demonstrated that the project of implementation became larger with multiple websites, this because the process then has to be done on several platforms instead of one. This has been identified as the reason behind the different levels of optimism that was shown between the respondents, were companies having multiple websites saw it more as an extensive project, and rightly so.

AI is not yet industry standard, it is more of a might have rather than a must have, as was expressed by the CRM Expert. The positive mindset of the companies towards adoption of AI does not trump the barriers that are present in the form of internal resources. The authors of this study have identified the e-commerce companies as being early majority segment rather than early adopters, which would have been in line with the described Born Global mindset of seeing possibilities. The authors draw the conclusion that the barriers become more evident due to ambiguity of the benefits that the companies could gain through adoption of AI. Through the empirical findings only enterprises were established as using AI technologies, such as Amazon. The authors conclude that the SME’s have issues identifying with these large enterprises as direct competition, therefore indirect competition has shown to not be a driver towards adoption in the present.

(2) The second sub-question relates to how AI within CRM-systems could facilitate an internationalization and to be a tool on the international market. Born global theories discuss technology as an enabler, motivator, and as a speed in rapid knowledge gathering (Oviatt & McDougall, 2005). Technology is also regarded as a tool to generate competitive advantage for the companies. Phan and Vogel (2010) describe that having better technology and processes could be factors leading to operational effectiveness and strategic positioning, which are factors that create competitive advantage. Boose (2002) describe that companies that are the most successful at delivering value to each customer, are the most likely to be the leaders of the future. The empirical findings showed that internationalization can be facilitated through technology such as AI within CRM-systems. The empirical findings showed natural language processing would be useful on an international market to be able to communicate with customers speaking different languages. Data analysis was also identified as being a useful tool to be able to make more well informed decisions. However, since none of the companies had integrated AI within their CRM-system, these are perceived benefits of AI from the companies reflecting back on their internationalization. Our study has identified that AI within CRM-systems could help as a tool on an international market, rather than during an internationalization process. The authors relates this to Born Global companies internationalization not being described as a process by the e-commerce companies. All the companies shipping where available all over the world, it was more about choosing where to put efforts, rather than stepwise exploring new markets. The process was in form of seeking competitive advantage by being present on several markets and bringing value to the customers.
(RQ) The main research question of this thesis aims to explore how Born Global e-commerce companies are working towards adopting AI as a CRM solution. In the problem discussion previous research mention 2018 as the year for adoption of AI into companies CRM-systems. An article by Stackpole (2017) presents the gap between interest in AI and actual implementation of the technology. The empirical findings of this study is in line with the dilemma presented by Stackpole (2017). From the empirical findings it became evident that none of the companies have AI technology implemented into their CRM-systems in the present. The empirical findings showed that companies are planning to implement the technology and see clear benefits from adopting the technology. The knowledge about the culture of the buzzwords within the e-commerce sector helped the authors to understand where the e-commerce companies are in their mindset regarding adoption of new technologies. No one is willing to be the first to adopt the technology but, everyone wants to talk about the technology to not be the last one. The authors identified the companies as early majority in accordance with the theory by Rogers (2003). They are progressive in their ideas, but will not act upon new innovations without proof (ibid). The authors therefore draw the conclusion that not until AI becomes industry standard will companies adopt AI as a technology within their CRM-systems. However, the expert company did not offer any AI solutions which can be related to the availability of the technology, which is one of the factors within the TOE framework. Hence, not until more CRM-companies offer solutions based on AI technology will it become industry standard.

Another factor the authors identified during this study were the fact that the e-commerce companies current CRM-systems were not as advanced and developed as they were expected to be. The authors relate the lack of advanced CRM-systems to the barrier of internal knowledge discovered in sub-question one. The companies expressed not having knowledge of what data to analyse and how to use the data collected. Another fact were that the CRM-systems functions were not utilized to their full potential. The authors identified a dilemma were companies which use technology as a vital part of their business express not having enough internal knowledge about their CRM-systems as well as AI. Through the analysis of the empirical findings a need has been identified for further knowledge within companies both regarding CRM and AI. The authors identify a solution were companies need to advance in their own knowledge regarding advancement in technologies such as AI within CRM-systems, this to be able to better utilize the benefits the systems could bring. Another solution identified is in the sector of companies selling CRM, were they could offer to educate companies within CRM-systems as an after sales service. To avoid companies not using the systems to their full potential and lowering the barrier towards developing the system. To conclude, the implementation of AI as a tool needs to become more available by the CRM-companies before true adoption becomes reality. Companies also need to gain knowledge of how to use the systems to be able to reap the benefits of bringing value to the customers.
6.2 Theoretical implications

Research regarding the field of CRM and the implementation of AI into the systems lack previous research and a gap have been identified. The aim of this thesis was to fill the identified gap by exploring the field of AI and CRM. We conducted a research regarding how Born Global e-commerce companies are working towards implementing AI, what the perceived barriers and drivers are, and if the implementation of CRM facilitates an internationalization process. The theories of Technology Adoption discuss factors that might influence adoption of innovations. The outcome of this thesis has identified certain factors as barriers and drivers within the adoption of AI into CRM-systems. This thesis has contributed to the theories of Technology Adoption by confirming its accuracy as well as shining a light on what are factors affecting an adoption of innovation. The findings from this thesis also contribute to an understanding of what the perceived benefits of AI as a part of a CRM-system. This thesis has also identified Born Global companies as early majority segment within the innovation cycle which were not in line with the definitions of the Born Global mindset of adopting technologies early on.

6.2 Practical implications and recommendations

Due to the complex and highly competitive markets it is important for companies to stay competitive and deliver value to their customers. The importance to obtain knowledge is vital for the firms to be able to deliver value. Our research implicates that AI could have a real contribution to the field of CRM and to the future of business. Our research show that the perceived benefits of AI are many and the largest barrier might be availability of the technology on the market. Consequently availability might be what facilitates companies to adopt technologies such as AI. Our research hopes to inspire CRM companies to understand what potential customers value within their CRM-systems, as well as what they wished they would be able to do. A suggestion for e-commerce companies is to hire competence with previous experience within CRM and AI to acquire knowledge, as well as CRM companies offering customer education within the field. We hope this could be an implication for further development of the CRM field. With this study we hope to enlighten companies towards looking into AI-based solutions for their companies. Overall, the aim of this study is to create an interest which leads to continuous research within the field of CRM and AI.

6.3 Limitations

An identified limitation with the respondents were the fact that they had difficulties in separating what is actual AI and what is smart data. This may be due to the novelty of AI being used as a solution within business. This issue was solved by further defining AI to the respondents to make sure there was no miscommunication regarding the discussed phenomenon. Another limitation that was unintended was the fact that the companies are all based on the Swedish market and can therefore only shine a light from a Swedish perspective. Also, the amount of respondents participating in this study should be mentioned as a limitation. We do acknowledge that if more
respondents would have been willing to participate it would make the patterns identified in this thesis more valid.

6.4 Future research
Research regarding implementation of AI within CRM-systems is next to non-existent due to the novelty of the field. Yet it is a field worth researching due to the perceived effects it will have not only on CRM-systems but in the field of business. During our research we have developed suggestions for future research regarding the subject:

(1) **How are Large International Enterprises working towards adopting AI as a CRM-solution?**
To conduct a similar research to our but instead review large international enterprises and their CRM-systems and the usage of AI solutions. Have they gotten further in the adoption process than Born Global e-commerce companies.

(2) **How could AI be evolved to lower the barriers towards adoption of technology?**
To be able to overcome the barriers that have been identified in this thesis a qualitative study should be made. How could AI companies evolve their strategies when selling AI solutions to companies to erase those barriers and increase the implementation of such systems.
7. References

7.1 Articles


7.2 Literature


7.3 Journals


Suebsin, C., & Gerdsri, N. (2009). Key Factors Driving the Success of Technology Adoption: Case Examples of ERP Adoption. PICMET 2009 Proceedings, Aug 2-6, Portland Oregon, USA.


7.4 Reports


7.5 Websites


Appendix

1.1 Questions for Born Global E-commerce Companies

General Questions
1. Do you wish to be anonymous?
2. Would it be alright if we record this interview?
3. Can you describe yourself in short? *(What position do you hold, how are you working with the international market? How long have you been in the company?)*
4. Can you describe the company in short? *(How many employees? How many of these are working towards the international market? How long have you been internationally active? What is your main product? What markets are you currently active on?)*

Born Global Internationalization
5. What was the reason behind the early internationalization of the company?
6. What are the biggest challenges in your sector right now in the international market?
7. What challenges do you think e-commerce companies will face in future internationalization processes?
8. Are your customers long-term loyal customers or are they mostly non-reoccurring customers? Are your customers mostly from your country or more spread all around your markets?

Customer Relationship Management and Adoption of Technologies
9. How are you currently working with Customer Relationship Management?
10. Are you gathering and analysing your customers and customer data manually? Could you estimate the time you put on gathering and analysing data during the week?
11. Do you feel that the system you are using now works well and that you are reaching out to the customers well and that the customers easily can reach out to you?
12. Do you have any systems in place to make the handling of customers easier to gather data and use this data for decision making in international markets?
13. Is there any customer relationship management system that you think would help you that is not implemented and used at the moment in the company?

14. Do you see a change in how companies now are handling this kind of data from customers?

15. Do you feel any pressure from competitors to be updated on the new technology and automation?

16. What reason do you think is behind that companies want to advance in technology?

**Artificial Intelligence and Technology Adoption**

17. What is your opinion about Artificial Intelligence?

18. Does your company working with any system where AI is a part?

19. What would be the main drivers for your company implementing AI into your CRM-systems?

20. What do you feel are the main barriers for why you would not implement AI into your CRM-systems/company?

21. Do you think that AI could help companies gain more international presence?

22. Would the company’s internationalization process have been “easier” today due to the advances in digitalization, AI and other systems, then when you started as a company?

23. If you could dream, what technological advances, already invented or not, would you want to have in your company to improve the everyday life? *(Example: if this would atomize, would it be easier for you/give your more time for other things).*

**Concluding Question**

24. Do you have anything more to add on the subject?
1.2 Questions for Expert Company

**General Questions**

1. Do you wish to be anonymous?
2. Would it be alright if we record this interview?
3. Can you describe yourself in short? *(What position do you hold, how are you working with the international market? How long have you been in the company?)*
4. Can you describe the company in short? *(How many employees? How many of these are working towards the international market? How long have you been internationally active? What is your main product? What markets are you currently active on?)*

**Internationalization**

5. How do you consider the competition within your sector to be in the international market?
6. What challenges do you think e-commerce companies will face in future internationalization processes?
7. Do you believe that the globalization of our society has contributed to the development of customer relationship management?

**Customer Relationship Management and Technology Adoption**

8. How many of your CRM-systems are technological based?
9. Is your system delivered as a whole solution or sold separately?
10. Which is your most popular AI solution?
11. What is the reason behind that companies choose to implement this kind of solutions? *(Save time, be more effective in other places?)*
12. What is the reason behind that many companies choose to implement traditional (human) CRM-solutions instead of a AI-based one?

**Artificial Intelligence within CRM and Technology Adoption**

13. What are the most developed AI solution?
14. Would an AI solution facilitate the internationalization process or strategy for a company?
15. Are there any AI solution that could help to increase a company sales internationally?

16. Do you believe that there will be any limitations for the companies who implements AI into their CRM-systems?

17. Do you believe that your CRM systems provide customer loyalty?

**Concluding Questions**

18. Do you have anything more to add on the subject?