Marketing by the use of algorithms

A multiple case study on the impact of automated systems concerning marketing aspects

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Abstract

As new technology is entering the market, new strategies are implied in terms of marketing. Companies are facing tremendous digital changes that implies a change in their current marketing strategies. Classical marketing strategies are undergoing a change towards automation and not everyone is comfortable to this change.

The study has been executed by conducting four case studies with different companies but with the similarity of that they were all facing digital transformations, both internally and externally. These companies have been chosen due to their different levels of adaptiveness to new innovative technology, in terms of implementation of automated systems. The four case studies consisted of semi-structured interviews and a brief questionnaire.

The results of the study indicate that companies are facing several challenges when implementing automated systems. These risks and challenges implies for companies that are in thoughts of investment to carefully overcome these challenges in order to acquire the expected outcome of a possible implementation, that is mainly improving efficiency, cost savings and remain competitive on the market. The thesis resulted in providing general recommendations for companies in thoughts of investment, by stating the implications information technology have on their existing marketing strategies and how to overcome these challenges.

Keywords
Automated Systems, Automation, Marketing automation, Customer relationship management (CRM), Personalization, e-commerce, ICT, innovation, diffusion
Sammanfattning

Eftersom ny teknologi kommer in på marknaden, innebär det att nya strategier behövs gällandes marknadsföring. Företag står inför stora digitala förändringar som innebär ändringar i nuvarande marknadsstrategier. Klassiska marknadsstrategier genomgår en förändring mot automatisering och alla är inte bekväma till denna förändring.

Studien har genomförts genom att utföra fyra fallstudier på olika företag med den gemensamma faktorn att de alla genomgår en digital transformation, både internt och externt. Företagen har också valts uteft deras olika nivåer av erfarenhet och anpassningsbarhet i förhållande till ny teknologi, med avseende på automatiserade system. De fyra fallstudierna bestod av semistrukturerade intervjuer med tillhörande frågeformulär som distribuerades till en utvald representant från varje företag.

Resultaten av studien tyder på att företagen står inför flera utmaningar när man implementerar automatiserade system. Dessa risker och utmaningar innebär att företag som går i investeringstankar bör noggrant bearbeta de utmaningar de ställs inför så de kan uppnå det förväntade resultaten av ett eventuellt genomförande, det vill säga främst effektivisering, kostnadsbesparinger och att fortsätta vara konkurrenskraftig på marknaden. Studien resulterade i att ge generella rekommendationer för företag som funderar på att investera i automatiserade system, genom att ange hur IT påverkar befintliga marknadsstrategier och hur man ska lösa dessa utmaningar.

Nyckelord
Automated Systems, Automation, Marketing automation, Customer relationship management (CRM), Personalization, e-commerce, ICT, innovation, diffusion
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List of Abbreviations

ROI – Return on investment
MA – Marketing automation
CRM– Customer relationship management

ESP - email service provider
1 Introduction

In the following chapter the background of the problem will be presented. The problem to investigate will be explained as well as the purpose answered by the research questions. The chapter will also contain the expected contribution of the research as well as the delimitations and limitations of the thesis.

1.1 Background

We are witnessing the emergence of a new market place thanks to new technology affecting our daily interaction. Digitalization is rapidly changing companies globally, and consumer demand is constantly increasing. From the early 90’s internet had a major impact on the business by changing its fundamental cause. The internet came to allow doing business everywhere in a broad extend and thereby eliminate the constraints of time and distance when operating a business and reaching customers (Fingar et al. 2000). As the industrial age terminated when the computer was launched the information era started as new alternative ways of communicating was introduced. New forms of keeping real-time information and obtaining new business opportunities was now possible due to the internet (Fingar et al. 2000).

When comparing to prior ways of marketing a company or product there is a great difference in the classical marketing strategies comparing to the new type of marketing. Since the internet was launched, companies could establish themselves on a global level even though they were small businesses. Companies have the ability to reach geographically dispersed markets that would have otherwise been cost prohibited to consider without this new type of advertising. New entrants on the market are now expected and companies that are already established must now compete on a global marketplace. Now with this new type of technology, customers can be reached in a much broader extent and increase the amount of possible business.

Every day consumers are exposed to thousands of marketing messages and the amount of marketing is still increasing. With the use of existing social media platforms such as facebook, Youtube, Instagram, uber etc marketing has become more infiltrated in our daily lives. These platforms are great enablers of reaching out to current and prospective customers. This new type of marketing has a complete new and more powerful impact than before comparing to old marketing strategies. The need of personalizing the marketing is crucial in order to stand out among the huge crowd of messages (Goldsmith, 1999). With this in mind, companies have realized this problem and embraced a more automated process in order to keep their marketing personalized and communicative. This new type of automated systems requires a change in the
current marketing strategies and is also an enabler for enhancing the new modern way of successful marketing.

When introducing a new change on the market that differs from previous working marketing strategies, there is a need to cross the chasm. There is a diffusion in innovation and thereby required to be approached differently when reaching out to several new segments of the market. In order to succeed with a new marketing strategy, the contribution must be to overcome the chasm and know how to shift the strategies in order to become successful. The chasm, is the gulf between the early adopters or visionaries and the early majority mainstream market, also called the pragmatists (Mohr et al. 2010). As new marketing strategies are indulging the market place, the need of crossing this chasm is crucial in order to reach out in a broader extent and establish a successful change. Companies are eager to develop the best product with the most advanced technology as possible in order to stand out to the early market customers.

1.2 Problematization
As mentioned in the background section, companies are facing a change in their current marketing strategies by going towards automation in the new era of information technology.

Today, many companies are confronting a digital transformation and the need for remaining competitive on the market is connected by adapting to new technology. In this case, the area of automated systems is still a rather unknown area for companies and its implementations are performed on different concentrations which affects the innovative level of a company. The companies that are undergoing a digital change, faces a lot of challenges following the new implementations of automated systems concerning marketing aspects.

Nowadays many companies are not using all provided features of already implemented systems that could serve as beneficial for a company and therefore missing out of leveraging interactions across channels that can be of industrial value.

As companies are investing in automated processes in a greater scale than before they also want to see what benefit they can get out of it and what improvements in existing marketing strategies can be done. Thus, the problem of this is the lack of knowledge around the area of automated systems and that affects the possible investment thoughts for companies. Therefore, there is a great need in analyzing what the actual impact of a possible automated system implementation can do.
1.3 Purpose

The purpose of this study will be to analyze the impact of automation in terms of marketing strategies. There is a great difference between the marketing strategies prior the diffusion of innovation comparing to the current situation where everything is controlled by algorithms as the processes are now becoming more automated. As many companies are implementing automated processes in their daily activities, such as functional CRM systems and marketing automation, there is a great need of analyzing the actual impact on these implementations and see if there should be an investment. Therefore, the need of finding the right resource allocation when implementing a new marketing strategy is essential in favor of succeeding. As the importance of having a greater customer experience is becoming more relevant in the situation of today it is crucial to incorporate the developing of customer experience in accordance with the digital evolution.

Throughout the research process, the study aims to present the actual concept of automated systems and identify gaps in previous studies that will provide an opportunity for supplementary investigation. By providing empirical evidence the research will gain a great insight in how companies think today regarding the implementation of automated systems. The study will gain insights by investigating previous research and perform a multiple case study at four different companies that operates in different industries and that are on different levels when it comes to automated systems. By gaining a deeper insight in the understanding of automated systems, the study will find areas of improvement and determine how these new insights can be valuable for companies investing in this new type of new technology. Increased investments in automation processes provides the study a strong reason for further research to discover how automated processes can be used in the most beneficial way or if it a bad investment idea.

1.4 Research Questions

To obtain a greater insight if companies should invest in automated marketing the following research questions will be answered throughout the study:

The main research question addresses the purpose of the research:

*How is information technology affecting marketing strategies?*
These sub questions will help to answer the main research question:

**RQ1:** *What are the external and internal factors driving a possible implementation of automated systems?*

**RQ2:** *What potential risks and challenges occurs when implementing an automated system?*

1.5 Expected contribution

The research aims to contribute to existing literature about the actual definitions of automated processes such as marketing automation, CRM-systems etc. and see what their impact is on companies investing on it. The study will contribute both to companies and for general research regarding this matter. As there are few studies made from this subject, a contribution to previous research will therefore to fill the gap in the existing literature with this thesis. The study will be of interest to ones that are interested in knowing the definitions of automated processes as well discovering the actual impact it can to for a company investing in it. The research will also conclude recommendations retrieved from the empirical results.

1.6 Delimitations and Limitations

**Delimitations**

Several times in this report the caption” automated system” is mentioned. In this thesis, the description designates several types of technologies and systems that could be applied and that enable automation, for example Marketing automation, Customer relationship management systems, email-marketing automation platforms, e-commerce marketing, marketing technology tools. This research will mainly focus on two of the automated systems that have been applied on different companies, Marketing automation and Customer relationship management (CRM). These two systems are chosen because they cover important aspects on both automation but also involve the awareness of customer importance for a company. The fact that marketing automation is chosen as one of the two systems is due to its “newness” on the market and that would also provide an insight on how innovative a company could be by connecting it to the empirical results.
One delimitation will also be that the case study will only be performed at four different case companies. The reason for this is both the time frame of the study but also the amount of companies with knowledge in automated processes is limited.

Limitations
One of the main limitations of the study is that the timeframe is very limited, hence the study may not present the complete situation of the chosen subject. The consequence of this will be that the empirical material will have to be collected during a specific time and might lead to a narrowed perspective. Furthermore, the study may not present the full situation of the case companies due to confidential reasons from each company.

1.7 Outline of the thesis
This report is disposed in six chapters with the following outline:

1. Introduction
The first chapter serves as an introduction to the whole thesis. Here the background of the problem will be presented. The problem to investigate will be explained as well as the purpose answered by the research questions. This chapter also contains the expected contribution of the research as well as the delimitations and limitations of the thesis.

2. Method
The second chapter includes an explanation of how this research will be made to fulfil the purpose. The section will provide a description of research approach, design of research as well as considering the reliability and validity of the thesis.

3. Literature and theory
The third chapter presents an overview of the literature that is analyzed and presented to consider the problem of the thesis. An introduction to the phenomenon of automated processes will be presented as well as how the internet has changed technology in terms of innovation.

4. The interview and questionnaire design
The fourth chapter will present the interview questions that have been used for this study. The questions have been formulated in accordance to the literature theory and the research questions of the study.
5. Results and analysis
The fifth chapter presents a brief description of the interviewed companies as well as a presentation of the findings from the semi-structured interviews and the questionnaire. The findings aim to provide an empirical foundation in order to answer the research questions of the thesis.

6. Conclusion and future work
The last chapter presents a discussion of the conclusion of the study in relation to the research questions. The chapter also contains the implications and limitations of the study as well as recommendation for future research.
2. Method

This chapter includes an explanation of how this research will be made in order to fulfil the purpose. The section will provide a description of research approach, design of research as well as considering the reliability and validity of the thesis.

2.1 Methodological Approach

Since the phenomenon of automated systems is rarely researched, the purpose of this research is to obtain a greater insight on if companies should invest in automated systems concerning marketing aspects, and thus, fill a gap in the current body of knowledge. Therefore, the research approach will be a combination of investigating existing literature concerning automated systems as well as subsidizing it with empirical data. For this research, an inductive approach has been chosen, meaning that findings in theory are underwritten through observation of empirical findings (Collis & Hussey, 2014). The inductive approach has been selected to remain flexible in accordance to the empirical findings and being able to reformulate the research questions as new knowledge is captured. In addition, an iterative approach was used during the research to reassure that the purpose together with the problem formulation and research questions were in line with the whole research (Blomkvist & Hallin, 2015).

As the purpose of the study was to investigate if companies should invest in automated systems, a case study approach was chosen as its characteristics suited the purpose of this study (Collis & Hussey, 2014). The case study provides the research the empirical insights that will enable the study to achieve applicable results for companies with the aim for investing in automated systems. Also, a case study is considered as a tool in order to define a phenomenon in a real-life context when the area of research is of an exploratory type (Yin, 2013).

There will be four case studies conducted at different companies that have implemented automated process which provide a more specific insight. Each targeted company will represent one case, and representatives from these companies will be interviewed to gain in-depth knowledge. The reason for choosing four companies is because an investigation of only one case company may possibly result with an incorrect or misrepresentative result. The result of conducting only one case company could result in a highly company-specific conclusion, and not answer for a whole market. Yin (2013) argues that a multiple case study enables the researcher to explore differences between the cases. The goal of performing a multiple case study is to replicate findings across cases. Yin (2013) also states that each case company should be chosen carefully so
that the researcher can predict similar results across cases. Furthermore, Baxter and Jack (2008) enhance the choice of multiple case companies by arguing that it will ensure that the issue it not only explored through one perspective, but from various perspectives that allows for multiple aspects of the studied phenomenon to be discovered and comprehended.

Consequently, by selecting four distinctive companies, the research will provide more general conclusions from the research outcome that could serve as recommendations for other companies. Furthermore, the data collected through the empirical study will be used in order to find similar patterns and differences among the four case companies. However, if the time limit would have been extended, more companies could have been indulged in the research to increase the validity and depth of the study.

The chosen research questions will be addressed throughout a qualitative approach (Collis & Hussey, 2014). This approach means that qualitative data will be analyzed with the usage of interpretative methods.

2.2 Research Design

As the objective of this thesis is to analyze the impact of automation in terms of marketing strategies on companies investing in it, the margins between the phenomenon and the literature context are not evidently apparent. Therefore, a case study is suitable as an approach of research. A case study is an empirical study that allow the researcher to analyze and investigate a present phenomenon within some real-life context (Collis & Hussey, 2014). The characteristics of a case study seemed to fit the purpose and objective of this research. The method contains collecting data on the topic of the thesis, mainly collected at one or many case companies.

The study aims to investigate the matter by incorporating a mainly qualitative method, meaning the methodology will primarily be conducted throughout semi-structured interviews with four selected case companies. These companies will be chosen carefully, with the intention of obtaining evidence on aspects considered in the chapter 3, meaning a result of real implication after implemented an automation process such as for example marketing automation or CRM. From this empirical study, the research will be able to draw conclusions with help of the prevailing literature concerning automated systems in theory and compare it to a real-life context by analyzing the actual impact automated systems had on companies implementing it. The research will therefore be able to combine the literature with the empirical study and draw conclusions relevant for the thesis as well as providing a solid base for further research.
As mentioned in section 2.1, an iterative methodology will be used throughout the process. This implies that the key part of the thesis such as problem formulation together with research questions and literature review will continuously be revised and developed during the process (Blomkvist and Hallin, 2015). Each part of the process is connected to each other but will be continuously evolved as new findings reveals later in the process. Here is a figure that briefly describes the process.

![Diagram](image.png)

**Figure 1. The research design of this study**

This figure shows how the initial problem was formulated and followed by a literature review. This was conducted in order to gather the essential information regarding the stated problem. When the researcher felt satisfied with the literature findings, a multiple case study could be conducted with four different companies. These companies are targeted for qualitative empirical collection by conducting semi-structured interview and a brief questionnaire. The phase of analyzing the findings will be done after the empirical collection have been conducted. The figure shows double-headed arrows that symbolize the iterative process of the research, meaning that the report will continuously be updated when finding relevant material. The arrow above the process shows the writing of the report that will be done continuously during all phases.

### 2.3 Literature Review

The review of literature findings is a very important part of the thesis, as it builds the foundation for the empirical studies and the interviews (Collis & Hussey, 2013). It is a source of information and its purpose is to provide an in-depth knowledge around the subject. The literature review is continuously updated and developed throughout the research. Also, this part of the thesis enables the researcher to understand the outcome of the interview and every finding as well as incorporating previous studies that are of relevance to this topic. Conclusively, the literature review can be seen as the secondary source of the whole study that will be examined together with the findings from the empirical study.
The relevant literature is gathered from the databases Google Scholar and KTHB Primo. Frequently used key words when searching for relevant literature are: “automated systems”, “Marketing automation”, “Customer relationship management (CRM)”, “digitalization”, “information technology”, “innovation”, “diffusion”, “marketing strategies”, “automation”, “e-commerce”, “Personalization”.

The literature chapter was critically evaluated using a thematic approach according to Collis & Hussey (2014) by using their suggestions of literature analysis. Also, by categorizing the found literature into subgroups depending on their content it will facilitate the themes that will be analyzed in a greater detail during the interviews. The researcher has searched from various sources and the collection of literature have been chosen based on reliability and what the researcher assesses to contribute to the study. Furthermore, by using the abovementioned keywords, the collected data has been sorted into different groups to maintain the literature chapter organized.

2.4 Qualitative research approach

The chosen research questions will be addressed throughout a qualitative approach (Collis & Hussey, 2014). This approach means that qualitative data will be analyzed with the usage of interpretative methods. The chosen methods for qualitative approach are conducting semi-structured interviews together with a brief questionnaire.

2.4.1 Semi-constructed interviews

According to Blomkvist and Hallin (2015), conducting interviews can be suitable when “there is an interest in developing a deeper understanding of a phenomenon, when there is a desire to discover new dimensions of what is being studied, and when there is an interest in multiplicity”. The design of the interviews will be semi-structured which means that there have been preparations beforehand on different angles of questions to cover a part of the studied phenomenon (Blomkvist & Hallin, 2015). The interview questions were guided by the conceptual framework developed in the literature study and will be carefully presented in chapter 4. The motive for presenting the questions in chapter 4 and not in chapter 2, is due to the gathering of assertive literature and theoretical review had to be done before formulating suitable questions for the research. The semi-structured interviews are of great importance for the research in order to fill the gap of empirical data of this indicated phenomenon and provide an answer to the chosen research questions. Thus, the conducted interviews will be considered as primary sources for the data collection and the main method for gathering an industrial perspective for the study. Also, the reason for choosing semi-structured interviews as an approach was because it allowed
The researcher to ask supplementary questions to go deeper in new explored matters or when more specified information was of interest (Collis & Hussey, 2014).

The qualitative data will be collected through interviews with four different case companies and the findings will be carefully analyzed. To validate the findings from the interviews and increase the reliability of the study, the interviews were recorded and transcribed in order for the researcher to analyze the collected data more closely. Ethical aspects were considerate before the interview, where the interviewees were asked if they approved being recorded throughout the interview session. All interviewees’ answers were treated anonymously in order to enhance their reasoning and participation in an open way. According to Collis & Hussey (2014),

The design of the interviews as of semi-structured nature has been chosen due to gain in-depth knowledge on how the impact of automated processes has changed their current marketing approach on the case companies. The questions chosen will be open-ended, meaning the interviewer will be able to get more developed answers leading to a discussion around the matter. A typical conduction of semi-structured interviews, the researcher prepares questions in order to encourage the interviewee to talk about the subject in a broad perspective and also interesting topics of interest.

When selecting the interviewees, a preferred criterion was that the interviewee had worked close to the marketing department and had knowledge about what strategies had been used. Likewise, one other preferred criterion was that the interviewee had some insights in the decisions making regarding operation of new system implementations, such as for example CRM. Some interviewees where searched for through the web service LinkedIn, which is a networking community connecting professionals. They were thereby contacted through the LinkedIn mail function after their profiles were carefully reviewed regarding their experience in the investigated phenomenon. Other interviewees where searched for through the search engine Google, where a specific case company was of interest and thereby contacted through finding e-mail address on its homepage.

2.4.2 Questionnaire design

A questionnaire was conducted and sent out to the participants from each case company to enhance the possibility for benchmarking the results against each other. The questions provided closed-end questions that are easier to analyze (Collis & Hussey, 2014). Also, the questionnaire questions that will be formulated for this study will have multiple pre-chosen alternatives to choose from. The purpose of a brief questionnaire was to provide additional support to the
empirical findings and further insights from the case companies. The reason for providing a questionnaire to the research is also to probe emergent themes along the research (Eisenhardt, 1989). When conducting a cross-functional case study it is of great convenience to provide alterations because it enables the researcher to understand each case individually and gain as much depth as possible. Being flexible during the research process provides an opportunity to take advantages of the uniqueness from a specific case and from new emerging themes. These changes and additional data collection methods improve resultant theory. The result of the questionnaire is therefore a complement to the semi-structured interviews where the data obtained from the questionnaire will be possible to link to the interviews, in order to create stronger conclusions. Nevertheless, it is important to highlight that the questionnaire questions will not be of a typical questionnaire definition, meaning the questionnaire was only sent out to four participants, the same participants as for the interviews and not to numerous recipients (Collis & Hussey, 2014).

The questionnaire was created through the online service Google Forms, and was then sent to the same participants as for the interviews through e-mail. It composed of six questions which defines this questionnaire of a brief context (Collis & Hussey, 2014). However, more than six questions would have provided the research more depth and reliability but for this particular research the aim was to provide additional support for the thesis and therefore it did only contain six questions that added support to the six related interview questions.

2.3 Qualitative Analysis Procedure

For the data analysis of this thesis a cross-case analysis was used. This means that the researcher may draw out similarities and differences in order to identify common patterns between the case companies (Collis & Hussey, 2014).

The data analysis of this thesis procedure will consist of:

- Identify observable themes by highlighting important key-answers from the interview transcripts
- Description of the identified findings from each interview question to draw conclusions from the empirical findings.
- Data processing from the questionnaire will be gathered through google forms and result in diagrams in order to have an overview of the results

As the chosen method is a qualitative data approach, the content analysis consisted of three elements according to Colls & Hussey (2014). The first stage of the analysis was to reduce the collected data. It involved removing data with that was of less relevance for the research. The
second stage of the analysis was to restructure the data based on the transcriptions of each interview. This phase enabled the emergence of themes obtained from the interviews that facilitated the analysis. The transcription of interviews led to minimizing the loss of data collection and enhanced the validity of the research. Natural limitations such as personal memory and loss of nuances in answers is avoided through transcriptions of interviews according to Bryman and Bell (2011). The last phase of the analysis was to summarize the data from each interview after sorting out the most relevant material. The empirical data was sorted out according to identified themes throughout the data collection.

2.4 Validity and Reliability
To reassure a scientific quality of the research, validity and reliability were carefully analyzed. Validity concerns how well the findings reflect the phenomenon of the study (Collis & Hussey, 2014). Reliability measures to what extent another researcher can provide a study that obtains the same results, if the study was conducted repeatedly (Collis & Hussey, 2014).

The validity of the study was evaluated through the different methods used in the research. For instance, the limited number of interviews had an impact on the validity of the study. Also, it is important to highlight that the answers from one interviewee could be of a personal opinion and does not represent the whole company’s opinion. To increase validity of the research the semi-structured interviews have been conducted in accordance to the research questions, making sure the answers where of relevance for the study. Furthermore, the chosen secondary sources have been selected with great consideration of context to certify their significance for answering the research question. One thing that could have affected the validity of the thesis is the lack of academic papers treating the definitions on automated systems and their impact on companies implementing it. Thus, all the collected literature was critically evaluated, which increased the validity of the study.

The study was built on a qualitative approach, including semi-structured interviews and a questionnaire. Collis and Hussey (2013) argues that even though the interviews are of a greater qualitative approach, this kind of approach could to have a low reliability. This is because interpretations and observations can differ on how the researcher have understood the actual reality. Findings can also gain a poorer reliability depending on the specific time and setting where the semi-structured interviews are conducted. The result of the study can therefore depend on this specific setting and situation. Also, the reliability of the study relied on how the interview
questions where designed and formulated. Uncertain formulated questions could lead to a poorer reliability for the study as these questions prepare a base for the empirical context of the research.

2.5 Summary of method chapter
To summarize, this chapter has described the methodological approach in order to answer the research questions. It has also presented the chosen research design of the study by describing the method of gathering relevant literature, empirical data collection containing both semi-structured interviews and a questionnaire as well as a description of data analysis. To end this chapter, a critical review of the research concerning the validity and reliability of the study has been done. In the next chapter, the literature and theory of the research will be presented.
3. Literature and theory

In the following chapter an overview of the literature chosen to cover the problem formulation of the thesis. An introduction to the phenomenon of automated processes will be presented as well as how the internet has changed technology in terms of innovation. Each article found relevant for the thesis will be investigated carefully by its purpose, method and conclusion.

3.1 How the internet is changing technology by innovation

There are several labels to identify an innovative process. The most common types of innovation are the radical, incremental, discontinuous and imitative innovations where the process look more or less the same. In accordance to this thesis, the type defined as technological innovation will be important to distinguish in order to identify other types of innovation. Innovation is defined as an iterative process that is initiated by the perception of a new market or a new service opportunity for an invention that is technology-based and lead to tasks for development, production and marketing. It also strives for the commercial success of the invention (Garcia and Calantone, 2001). When identifying an innovation, it is therefore crucial to consider both the marketing and technological perspective.

When a new system is introduced on the everyday workplace the way of thinking is to analyze what the desired perfect state would be on a new functional system. The key principle when launching a new system or architecture is to imagine what would be the perfect situation when changing the current process. The desired state is something to strive for and result in minimizing the gap between what to actual accomplish when introducing a new system thinking. Innovative business processes are not extensions of existing processes, instead they are discovered by new ways of thinking, creative by established mental models and ways of conducting work. There is an importance of distinguishing the gap between the desired state and the actual state, as the gap in between is the result of a base built for introducing and developing a new strategy.

The nature of innovation depends a lot on how positively or negatively the acceptance is as well as the diffusion of innovations. Weather an innovation is accepted or neglected it is based on how individuals’ percept this new difference. Disruptive technologies tend to cause influential changes (Raynard, 2016). Hence, the new era of information is the key to this new evolution in changing technology.
During the industrial age the information held flowed only one direction; one-to-many, meaning from producer to customer. In the information age this aspect changed to a many-to-many information flow, where customers could connect among customers thanks to the internet. This fact immediately changed the whole point of communicating with giving more power to the customer and in that way, enable the new customer age (Fingar, P. et al (2000).

As the rise of digital content and social media has entered our daily lives, the way businesses and individuals now search information is being transformed. The digital revolution has implied various changes in the business strategies and several challenges has been raised. Digitalization creates effectivity in the core processes, that improves sales by indulging this new type of strategy (Hadjikhani, 2013). Therefore, businesses must continue with its innovation processes in order to remain competitive. As businesses embrace digital transformation across all aspects of operations, the data landscape is therefore changing dramatically. Companies that are thinking forward and innovative are tapping into more creative data sources such as new automated platforms.

3.2 Diffusion of innovation
The diffusion of innovation theory was developed by E.M Rogers in 1962 and is considered as one of the oldest theories of science. The general purpose of the theory is to explain how fast a product or idea spreads over a specific population segment. Diffusion is the progression describing how a new idea or product is recognized on the market. In the marketing aspect, diffusion describes when the approach towards technology adoption is becoming substantial. An introduction to a new product requires a change of the current working process and organizational behavior and these change-sensitive implementations are called discontinuous innovations.

3.2.1 The five adopter categories
This theory concludes five established adopter categories that can be shown in relationship to the market share in the following picture.
According to Rogers (1983) the five categories consist of different levels of adaptors. Each group represent a differentiation from each other established on their types of reactions towards a discontinuous innovation based on new technology or system implementation.

The first group is the innovators, that are known to be the most venturous in trying the innovation. This group segment are the ones who are not afraid of trying new ideas and willing to take risks in order to pursue the new technology first. Often, this group even seek new technology beforehand there have been any formal marketing programs released. Also, this segment consists of the people who also are the first to develop new ideas.

The second segment is called the early adopters. This group is considered to be similar to the innovators buy applying new product concepts very early in their life cycle, but the difference is that they are not technologists. Meaning, the early adopter segment does share positive testimonials about new technology or systems but prefer to rely on their own perception and insight before implementing, and not trust on well-established references. It requires only a little persuasion for this group segment as they are receptive for a change and often aware of the need to change.

The third group segment is called the early majority. This group share some of the features as the early adopter segment such as relate to new technology, but instead they are driven by a strong sense of practicality. As they know that a lot of these new technologies are only passing by, they are comfortable with waiting until the new innovations are more established on the market in order to consider a possible implementation. This group segment may adopt to new changes and are willing to do it, but this group rather perceive evidence and success stories of the innovation’s effectiveness.

The fourth group is called the late majority. This group also shares features from the early majority segment but they are even more unconvinced to a change as they only embrace an
innovation after a majority of the market share have tried it. When people in the early majority segment are comfortable to handle a new technology product, the late majority waits until it has become an established standard with a lot of supporting resources for the innovation before making an investment decision. This group segment together with the early majority constitutes the largest part of the whole market share.

Lastly, the fifth group segment is called the laggards and are considered to be bounded by traditions and are very conservative. This group segment is not receptive for changes and rather not have any involvement with new technology.

3.2.2 The chasm between the early adopters and early majority
According to Moore (2001) the earlier mentioned chasm between the early adopter and the early majority segment is originated due to the early adopters succeeding with connecting the critical stage to the unconvinced market, which in turn reach a cover point that provides acceptance among the unconvinced market to then sink again where the laggards persist.

The chasm implicates the start of the mainstream market and is considered as the most difficult market to capture when new technology often fails during the attempt to make progress.

The early adopters are expected to get an advantage to the competition on the market concerning aspects such as faster time to market, more comprehensive customer service or other similar business advantages. In contrast to this, the early majority segment wants to obtain a productivity improvement for their existing operations as they seek ways on how to decrease the discontinuity with the old working systems. When they choose to adopt the new technology, this group segment wants it to work appropriately in order to integrate it correctly with their existing technology base. The only acceptable reference for the early majority segment is a suggestion from another member in the early majority segment. This leads to a chasm because no member of the early majority segment would implement a new technology without having it asserted with several appropriate references.

Some strategies for crossing this “chasm” and go from first to mainstream includes choosing the right target market, understanding of the concept, in this case it would be a new technology system such as an automated system and also building a solid marketing strategy.

3.3 The algorithm based marketing
As digitalization is transforming our daily business, new platforms are entering the market. The new types of systems are driven by algorithms and its purpose is to function through automation,
which is another word for non-human processes and algorithms. Companies investing in this type of applications need to handle the collected data in a useful way and therefore it is critical to realize the fact of having a data-centric model. The data that we derive actionable knowledge from, has now become the dominant supply-chain component of any product and service provided to the marketplace. The data-centric model prioritizes the synthesis of heterogenous data sets as the driver of a business marketing strategy instead of defining a strategy and pursue applications to support it (Cohn and Hull, 2009).

As the digital transformation is affecting technology, it comes with many challenges. Businesses must not only cope with an enormous volume and variety of data, but also the increasingly high expectations placed on the outcome of the potential data can drive to a business success by personalizing the content towards the right customer (Kaufmann and Horton, 2014).

3.4 Marketing automation – A practical description
To be able to understand this thesis and get a recognition around the concept, a theoretical understanding of marketing automation is presented. In order to obtain the whole picture of the phenomenon and separate it from being just a buzzword it is crucial to indulge deeper in the actual definition.

Marketing automation is basically the use of software tools to automate marketing processes that involve customer segmentation, integration of customer data and also campaign management by streamline, automate and measure marketing tasks and workflow. The meaning with implementing this software is usually due to companies wanting to increase their operational efficiency and grow revenue faster by using much less human resource (LeSueur, 2009). An automated marketing decision can enhance better productivity and improved decision making. Also, the increased customer satisfaction can provide a higher return on marketing investments when the company can customize marketing activities (Heimbach et al. 2014).

There are also several misunderstandings around the concept of marketing automation. Email marketing is often mistaken to be marketing automation when speaking about the concept. Marketing automation is a lot more than email marketing campaigns. The concept embrace marketing campaigns across all sort of different channels, from direct mails, phone campaigns to broadcasting through social initiatives (Heimbach et al. 2014). It involves CRM (customer relationship management) as well as ESP (email service provider). The CRM approach analyze
data about the customers’ record with the company in order to improve the relationship with the customer and drive sales growth (Rigby D.K. 2002). The main goal of CRM systems is to increase sales and support the customer. Therefore, there is a clear similarity between marketing automation and CRM but they serve different roles in an organization. Even though both systems store similar information such as email, company details, address, phone number etc. CRM serves the sales and MA serves the marketing. This abovementioned automated system will be presented more thoroughly in the next section.

The processes of collecting the right data is crucial in order to obtain the right information towards the right customer and make marketing automation run efficiently. Also, it is crucial that the automation is supported by the right software systems. The purpose of automating the process is avoiding to manually change and adapt the implemented automation as it loses the whole purpose of the concept and decrease its benefits. Also, by manually implement the marketing automation process it removes the potential to make profit for the company as it is no longer automated (Miller, 2013).

As mentioned, marketing automation is implemented to focus on the actual customers by reducing the human resource and accelerate buyers through direct sales (Heimbach et al. 2014). The meaning with using marketing automation should help the company to centralize data and deliver a more relevant strategy when contacting potential customers which can lead to success when keeping a better track of the successful marketing campaigns (Grossberg, K.A, 2016).

There are a lot of possibilities created when implementing a marketing automation system, such as the ability to create customized and personalized campaigns that are based on prospects and customers’ interactions and value. The marketing becomes measurable as companies can start to streamline the workflow which in turn improve the efficiency and helps to grow revenue faster. The companies investing in the marketing automation software are currently experiencing an increase in qualified leads, sales productivity as well as a reduction in marketing overhead (Marketing automation insider, 2015). According to market research the marketing automation industry will not have any major change in the following years. There has been a peak within the industry and instead smaller businesses will be able to invest in these tools since they are assumed to become more affordable.
As the primary marketing automation systems where developed around only emailing lists, the new tools created in the later years enabled by the high-speed internet where more focused on including social media and therefore focused on direct marketing based on actions of each user.

3.3.2 Customer relationship management – A practical description

CRM systems could be targeted within two categories, targeting-related and support-related (Kim and Mukhopadhyay, 2011). The software of CRM often consists of various integrated models such as salesforce modules that have different functions, marketing automation as well as call centers towards customers. One common occurrence with an implementation of a CRM system is that the features of the CRM systems are not used after being implemented and therefore not contributing to reaching the result expected when investing in the system.

The target-related CRM modules involves marketing automation and various business intelligence modules. This category is associated with generating direct profit due to the increase of customer knowledge. The support-related category on the other hand is more focused on building relationships with customer and involves a more direct contact with existing customers by providing services such as call-centers, self-service modules and e-commerce. It involves a very close interaction with customers and influence the customers’ perception on the quality of the services provided by the company as well as loyalty if the implementation goes well. The expected outcome of this implementation is to obtain a higher customer satisfaction due to the enhanced ability to support customers individually (Kim and Mukhopadhyay, 2011).

Therefore, the user training for maintaining customers with support-target CRM differs from the target-related CRM since interactions and communication with customers are part of a customer support process while target-related is considering other aspects such as more analytical tools. These tools provided within the segment of target-related CRM involves analyzing the customer behavior and preferences when implementing a system without facing the customer. These modules implemented are within the analytical segment such as involving marketing automation and business intelligence modules. They are expected to enhance the accuracy and mark customers as loyal versus non-loyal customers but also target them when planning on future marketing events (Kim and Mukhopadhyay, 2011).
As these categories are separated from each other there are discussions whether both systems should be implemented simultaneously or separate. According to the article to determine the optimal CRM implementation strategies (Kim, Mukhopadhyay, 2011) the optimal implementation is to invest in one system as this requires knowledge in what to implement. Lack of knowledge of substitutive effects could therefore lead to overinvestment (Siggelkow, 2002). Another recommended decision according to this article is to focus on the support-related modules when investing in an appropriate CRM system if having a large customer base as this new implementation could affect the outcome of keeping customers loyal. As both target groups of CRM systems require different type of knowledge and resources as well as having different impacts on the outcome of the firm concerning profit and the customers it is important to reflect upon this categorization when implementing CRM software technology. Here is a table that describes both CRM module categories.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Categorization of CRM Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Examples</td>
</tr>
<tr>
<td>Targeting-related CRM modules</td>
<td>Marketing Analytical modules Business intelligence</td>
</tr>
<tr>
<td>Support-related CRM modules</td>
<td>Call-center Salesforce Field service Order management</td>
</tr>
</tbody>
</table>

Figure 3. Categorization of CRM modules (Kim and Mukhopadhyay, 2011).

To summarize, this chapter have presented literature that will build a concrete knowledgebase for coming empirical research. First an introduction of how the internet is changing technology by innovation was presented. Thereby, a presentation of the diffusion of innovation theory that will be frequently associated later in the research according to the empirical findings. Conclusively, an introduction to the chosen automated systems are presented in order to understand which systems are emphasized during this study, retained form the concept of automated systems.
4. The interview and questionnaire design

This section will present the interview questions that have been used for this study. The questions have been formulated in accordance to the literature theory and the research questions of the study.

4.1 Introduction to interview and questionnaire design

The following interview and questionnaire questions have been formulated to enhance the qualitative research. The questions have been derived in accordance to the literature and with the aim of answering the research questions of the study. The reason of presenting the questions in a separated chapter from the methodology is because the questions have been formulated after conducting the literature and theoretical review.

The chosen questions are very general in order to obtain answers from a wide range and connect the results to the literature. Some of the questions where adjusted during the interview to become more personalized for the interviewee but remained in its right context. The questionnaire questions where carefully chosen in order to benchmark the case companies against each other and compare them by analyzing the themes that emerged when conducting the research. Not every interview question has a belonging questionnaire question, with the reason of no additional support was needed.

4.2 Questions used for the study

The questions will be presented in numerical order and together with its belonging questionnaire question.

Interview question 1: How do you generally see on digital transformations when transforming to a new automated system?

Questionnaire question 1: To what extent would you say that automated systems are part of a digital transformation?

The reason for this question was to obtain an insight of how aware the respondent was on the digital transformation in general and of course in relation to the company. This question had the purpose of giving indications on how the attitude towards implementing any kind of automated system. The topic of this question is related to the literature theory where the thesis aims to how
Information technology has affected the strategies on why and if companies should invest in automated systems.

Interview question 2: What internal factors drive this new implementation/investment in the digital transformation?

Questionnaire question 2a: How likely is it that your company’s investment in automated systems are driven by internal factors, such as costs and effectivity?

Questionnaire question 2b: How innovative do you consider your company to be in accordance to adapting to new technology emerging the market?

This question was directly withdrawn from the research question of the thesis. The answer of this question will give an insight on the internal factors that a company faces when deciding if they should invest in an automated system or not. The interview question is asked because its answer could also give indications on how aware the interviewee is of the reason behind a possible investment in an automated system.

Interview question 3: What external factors drives this new implementation/investment in the digital transformation?

Questionnaire question 3:
To what extent is your company aware of its own position in the curve of how “innovative” your company is adapting to new technology in relation to other companies?

This interview question was directly withdrawn from the research question of the thesis. The answer of this question will give an insight on the external factors that a company faces when deciding if they should invest in an automated system or not. The interview question proposed because its answer could also give indications on how aware the interviewee is of the reason behind a possible investment in an automated system. Also, it is of high interest to see how companies consider how innovative they actually are. Furthermore, the question is also solicited to investigate how companies think around competitors and see how conscious they are around the innovation of technology if that is an influence.
Interview question 4: What internal processes are most affected when you make a digital transformation implementing an automated system?

Questionnaire question 4: No questionnaire question was chosen related to this interview question.

This question is requested in order to obtain a perception of how companies react internally when implementing an automated system. As this could be a major change for an organization of a company, it is of high interest to see how their internal processes are affected when making this digital transformation.

Interview question 5: What can you do in order to make the automation feel more personalized towards clients?

Questionnaire question 5: No questionnaire question was chosen related to this interview question.

As personalization is highly important in the marketing aspect, this question will indicate how aware the companies are on the effects personalizing marketing can give and how this matter is improved. The answer to this question will give suggestions to how companies can improve their strategies in order to become more successful.

Interview question 6: What are the most difficult parts when transforming to a new automated system?

Questionnaire question 6: No questionnaire question was chosen related to this interview question.

This question highlights the difficult aspects of a digital transformation and the question aims to obtain an answer that also could lead to direct improvements for an organization. This question also illuminates awareness on what have gone wrong before when implementing an automated system, or when recurring a digital transformation.
Interview question 7: What potential risks are considered when a company implements an automated system in a digital transformation?

Questionnaire question 7: No questionnaire question was chosen related to this interview question.

This question was directly withdrawn from the research question of the thesis. The answer of this question will give a high value for the research as it is one of the main topics of the thesis. The question will also serve as a guideline for companies that are thinking of implementing an automated system to see what risks to consider beforehand.

Interview question 8: How does the digital transformation affect the digital/marketing strategies?

Questionnaire question 8: In what extent to you think that a digital transformation, for example by applying an automated marketing system would affect the existing marketing strategies?

This question was directly withdrawn from the research question of the thesis. The answer to this question will be of high interest since it affects marketing strategies. When recurring a digital transformation, marketing strategies are carefully reviewed beforehand and this question will highlight the thinking around the changes that are made when applying an automated system.

Interview question 9: What are the expected outcomes of an implementation of an automated process?

Questionnaire question 9: No questionnaire question was chosen related to this interview question.

This question is asked to obtain an understanding around the thinking of companies when implementing an automated system. The answer of this question will also give an insight of how companies measure success after an implementation and how they compare the expected outcome with their actual results after hand.
Interview questions 10: During the digital transformation, do you feel there is any part in the process that needs to be improved?

Questionnaire question 10: Does your company recognize what failures have been done before when implementing an automated system?

This question is also needed in order to obtain an insight in areas of improvement when implementing an automated system or recurring a digital transformation in general. The answers will give fundamental base for stating the purpose of this research, since companies can read beforehand what areas should already be improved before making an investment in an automated system and in that way, make a decision if to implement or not.

Interview question 11: What are the greatest obstacles that arises when a company wants to automate/digitalize an earlier process?

Questionnaire question 11: No questionnaire question was chosen related to this interview question.

This question highlight the topic mentioned before, to highlight previous mistakes and improve them beforehand making an investment. But also, this question will provide an answer of how companies really utilize their actual systems and see if they are used in the wrong way not making the most of it, leading to an unnecessary investment.

Interview question 12: Why do you think that the company chooses to implement a new automated system when you already have a working one but not automated?

Questionnaire question 12: No questionnaire question was chosen related to this interview question.

The answer to this question will provide an understanding on how companies think in order to improve their current situation. It will give insights on how innovative companies actually are, if they are open to changes on implementing new type of technology that could benefit them and create new possibilities for the company.
4.3 Summary of interview and questionnaire design

This chapter have summarized the interview and questionnaire questions and declared the purpose of each question connected to the research. Each question has been formulated for the qualitative research approach. In the next chapter, a presentation of the four case companies will be presented followed by the results and analysis provided from the empirical findings.
5. Results and analysis

In this chapter, a brief description of the interviewed companies will be presented together with the findings from the semi-structured interviews as well as the questionnaire. The findings aim to provide an empirical foundation to answer the research questions of the thesis.

5.1 Introduction to result and analysis

This chapter will first start with presenting the four case companies by briefly explaining their background and the position of the interviewee. The next section of this chapter contains the results and analysis of the empirical findings. The results will be presented by providing a bullet list with the identified key themes in relation to the answers of the interview question. Also, the result of the questionnaire will be presented by a graph if it has a questionnaire questions related to the interview question. The questionnaire results contributed to a clearer perspective of the answers from the companies.

Each question is followed by an analysis of the acquired answers and connections to the prevailing literature in chapter 2. The short analysis of the specific results will be presented below the graph or bullet list by providing quotes from the interviewees and carefully analyzed results. After presenting each interview and questionnaire question, a more comprehensive analysis will be made by motivating the overall findings from this empirical study.

This chapter also contains a motivation of where in the diffusion of innovation theory (Rogers, 1983) each company are positioned according to the literature in chapter 2. This positioning will be motivated by analyzing the history of the companies when it comes to implementations of automated systems and their willingness to adapt to new technology. Conclusively, a summary of the empirical findings an analysis will be presented.

5.2 The Interviewed Companies

The information presented has been gathered from respective homepage and annual reports. Two of the interviewed companies asked to be anonymous during this study, therefore they will be renamed as “anonymous”.

5.2.1 Company 1- Telia

Company name: Telia company/Telia Sonera
Telia is a Swedish telecommunication company with headquarters placed in Stockholm. The company is one of the dominant telephone companies and mobile network operators in Sweden and Finland as well as operations in some other countries in northern and Eastern Europe. In 2002 a large merger between Swedish and Finnish telecommunication companies, Telia and Sonera resulted in the current company name Telia Sonera. The company offers products such as mobile networks, internet service, fixed-line communications and IT hosting. The digital marketing strategy of Telia is to be upfront in terms of display advertising as well as a high performance in search engine optimization, affiliate marketing and having its own media platforms. The company focuses a lot on their brand and works to personalize its marketing towards the right customer segments in order to increase customer satisfaction and add sustainable value to all their involved operation companies during a great digital transformation journey. The interviewee is digital advertising manager at Telia Sweden and works with strategies to find new efficient and creative tools to improve the digital marketing effectiveness.

5.2.2 Company 2- Anonymous

Company name: “Company 2”
Industry: Transportation and delivery
Founded: Between year 2008-2010
Interviewee: “Interviewee 2”
Position of interviewee: Marketing manager
Implemented automated systems: CRM, MA

Company 2 is an originally an American transportation network company operating worldwide and offers services such as transportation as well as delivery of commerce. Headquarter of the company is placed in San Francisco, USA. The company operates through an app where the user can connect to their driver. Company 2 has customers all over the world and is considered as one of the top most innovative companies in the world.
The strategy of the company is to be very accessible, exist locally and offer a very strong customer support. The growth of the company has been mostly due to strong referrals by word-of-mouth methods.

As this company is considered as very innovative it is not late with adopting to new digital transformation tools, and have therefore developed a very own in-house marketing platform. This tool is automated and lets marketers influence ROI-metrics in order to optimize spending for advertising.

5.2.3 Company 3 - CGI
Company name: CGI
Industry: IT services, IT consulting
Founded: Year 1976
Interviewee: “Interviewee 3”
Position of interviewee: Vice President of operations support Nordic
Implemented automated systems: CRM

CGI is a Canadian global information technology IT-consulting company offering IT-services such as system integration and outsourcing with headquarter placed in Quebec, Montreal. The company has customers in a wide selection of different industry segments and markets covering financial services, telecommunications, health, manufacturing, retail among other industries. The clients of CGI include both private entities as well as public sector such as governments dealing with defense, space, human services, public services etc.

One of their strategies is to invest in methodologies and tools to automate and support clients in their digital transformation. CGI helps their clients to digitally transform by using advanced digital technologies and industry expertise in order to help clients at every stage of their digital journey. The company is not only undergoing a digital transformation externally and towards clients but also currently implementing internal transformations, where it indulges the whole organization as they are implementing a new CRM system. The company is replacing their local CRM systems in to one global system working for all business units in the company.

5.2.4 Company 4 – Anonymous
Company name: “Company 4”
Industry: Mass Media
Founded: Between year 1838-1842
Interviewee: “Interviewee 4”
Position of interviewee: Marketing manager
Implemented automated systems: CRM, MA

This company is a Scandinavian mass media company with operations in several countries around Europe. Its main focus is media such as newspapers, publishing and mobile services. Company 4 have customers around whole of Scandinavia and is one of the leading distributors of media. They are also investors in digital companies with the aim of establish products or services, scale businesses, maximize growth and become market leaders. When the company look for companies to invest in they search for disruptive, innovative and scalable business models that creates value for consumers or businesses.

One the companies’ strategies when it comes to innovation is using new technology to get an insight in how to create solutions that secure effective communication. The company offers services and products that are adjusted to the daily needs of a user where the data is accurate according the pattern of the customer. By creating an efficient process, a lot of benefits brings by this initiative to the consumer as well as for the company.

5.2.5 Summary of chosen case companies
Even though the four case companies are serving different industry segments there are clear similarities since this thesis is emphasizing their digital transformation journey concerning marketing aspects implementing automated systems. The companies have all implemented automated systems but in different levels and progress. After doing research regarding each company, the findings were that all companies had the will of adapting to new technology but in different levels of adaption, which lead to a stronger purpose to investigate their thoughts on implementation of automated systems through these provided questions.

5.3 Result and analysis of empirical findings
As the methodology chosen for doing this study has been a cross-functional case study, the analysis provided will be drawing out similarities and differences between the case companies in order to identify common patterns. To avoid premature and false conclusions, the researcher has selected categories to facilitate the analysis of the collected data and to obtain a suitable cross-case comparison (Eisenhardt, 1989).
The analyzed categories that arose from the findings was first to investigate how open each company was to new technology, and the second observation was to see if the risks and challenges that followed with a possible implementation of an automated system took over the decision of not implementing it.

This categorization enabled the researcher to identify patterns among the findings, that resulted in positioning each case company in accordance to the diffusion of innovation theory. The answers of the study steered to several recommendations for the companies that will further be concluded in chapter 6.

Interview question 1: How do you generally see on digital transformations when transforming to a new automated system?

- New technology opens new possibilities for evolution
- Applying automated systems helps companies to streamline their marketing material and become more relevant towards the customer
- Digital transformation implies a lot of challenges, such as appropriate implementing methods, as it is usually a very technical approach

Questionnaire question 1: To what extent would you say that automated systems are part of a digital transformation?

From the interviews, one could conclude that the companies had a similar thinking when it came to the general thoughts on digital transformations overall. The fact that new technology opened
new possibilities for being part of an evolution was something that all four companies could agree upon. By applying automated systems, it helped companies to streamline their marketing towards relevant and potential customers. Even though, all interviewed companies agreed on that automated systems brought mostly benefits after an implementation, it was still not all the companies that did choose to implement it due to the several challenges that encountered the process during a digital transformation.

The questionnaire question supporting this interview question, resulted in that all four companies agreed upon the fact that automated systems are indeed part of a digital transformation.

This question is considered as a key question to this research when collecting the empirical data as it is seen very central for this study. The reason for this is to draw conclusions on how aware each company was on that automated systems were part of a digital transformation. This question stated that all four companies were on the same page when it came to acceptance of new systems. Though, this result did not imply that all four companies were on the same level when it came to the actual implementation.

To obtain a higher understanding on how companies think regarding digital transformations help the study to rethink and put a perspective on their strategies and being able to classify them among the five established adopter categories according to the theory of Rogers (1983). The diffusion of innovation theory describes how fast a new idea or product is recognized on the market and that was why it was of high interest to analyze the answers conducted from this interview question since the companies were on different stages in the implementation process of automated systems. The results are in line with the theory, where Rogers (1983) claims that companies that belongs to the late majority segment are often more delayed in their investment of new technology and prefers to wait until the product has become an established standard with several supporting resources and references.

Interview question 2: What internal factors drive this new implementation/investment in the digital transformation?

- An implementation in an automated system facilitates numerous aspects marketing wise, by only using one system instead of several different systems trying to integrate between each other
Applying automated systems provide internal efficiency within a company

It is considered as an approach for cost saving

Questionnaire question 2a: How likely is it that your company’s investment in automated systems are driven by internal factors, such as costs and efficiency?

![Figure 5. Results from questionnaire question 2a](image)

Questionnaire question 2b: How innovative do you consider your company to be in accordance to adapting to new technology emerging the market?

![Figure 6. Results from questionnaire question 2b](image)

These questions provided the thesis an understanding on what internal factors could possibly drive an implementation of an automated system. Two of the interviewed companies mentioned that by implementing an automated system it would facilitate their operational structure since it
only required one central system instead of several local ones. Another finding from the interviews was that companies thought that by applying an automated system, it would provide internal efficiency within an organization and in that way, improve the current processes. The overall answer to this question was in line with the part of the literature where Hadjikhani (2013) mentions that the digital revolution has implied various changes in the business strategies and that it creates effectivity in the core processes, that in turn improves sales by indulging this new type of strategy. Therefore, the fact that companies aims for efficiency when implementing an automated system is proven with this question and could be seen as a similarity among the case companies. Also, cost saving was a clear internal factor that drove an implementation in automated systems.

Interviewee 4 claimed that one of their internal factors for implementing an automated system, in this case a marketing automation system, was because their company wanted to approach new technology as it entered the market and made sure to have the necessary resources to learn about the new system. “By applying a marketing automation system, the organization could not only become more efficient and cost saving but also approach new technology to improve the innovativeness of the company”.

The results from the questionnaire questions related to this interview question showed that the majority of the four companies thought that internal factors such as cutting costs and improved efficiency was likely driving factors for a digital transformation. Again, a similarity resulted among the answers of the companies by their awareness of factors driving a possible implementation. When it came to the own perception of how innovative each company thought they were, the answers of the questionnaire provided different results. Company 2 and 4 considered themselves of being very innovative by always striving for implementations of new technology. The two other companies thought less about their innovative performance.

Interview question 3: What external factors drives this new implementation/investment in the digital transformation?

- Satisfy the client by delivering more accurate and personalized communication material
- Remain competitive towards other companies
- Companies implementing automated system, are associated with being more innovative by adapting to new technology
Questionnaire question 3: To what extent is your company aware of its own position in the curve of how “innovative” your company is adapting to new technology in relation to other companies?

This question was asked in relation to the previous question about internal factors driving investments of automated system, but instead focused on the external factors that a company could face in the decision making of an implementation. The findings from this question was that there existed a difference in the way of thinking when comparing the four companies answer. It was clear that the external factors were much more important for company 2 and 4, that also had implemented a marketing automation system. They thought that by implementing automated systems, would benefit the company in a way that they would remain more competitive on the market. “As new technology enters the market, our company want to stay up to date and take part of the digital transformation. The aim of these implementations is of course with the perspective of becoming positively persuaded by these changes” was mentioned by interviewee 2. This answer is also in line with the theory of Raynard (2016), who claims that disruptive technologies tends to cause influential changes on the market. Companies choosing to implement an automated system, are often associated with being more innovative when adapting to new technology according to the theory of Rogers (1983).

Another external factor driving a possible investment in automated systems, is due to the satisfaction of clients. The four companies where in line with the aim of satisfying the client and wanted to deliver more accurate and personalized material towards the customer, so that was a clear similarity between the companies.
The result from the questionnaire question proved that the majority of the interviewed companies thought that their own company almost knew in what innovative position the company was positioned comparing to competitors. As one external factor was indeed competition, this questionnaire question showed that two of the companies, company 2 and 4 thought they were more innovative comparing to competitors within their specific industry, while the company 1 and 3 considered themselves less innovative relating to competitors in their industry segment.

Interview question 4: What internal processes are most affected when you make a digital transformation implementing an automated system?

- Different internal stakeholders are affected since their normal “way of operating” could be changed
- Internal leadership is affected due to new requirements to overcome organizational opposition when integrating a new tool
- Existing systems are affected when implementing an automated system

From the interviews, it could be concluded that implementing an automated system came with several implications on the current organization. First, it was found that different stakeholders where affected since their daily activities could be changed and that was not always considered as something positive. The fact of undergoing a change in the internal processes that affects a huge part of the organization was something that required a strong internal leadership to overcome organizational opposition when integrating a new tool. Another consequence of implementing an automated system was that existing systems where affected when implementing the new system. Interviewee 3 mentioned that “when undergoing a digital transformation, in this case replacing the local CRM system with one global central CRM system, we would need to integrate all the other affected systems at the same time, which in turn is very difficult due to the time frame of a project”.

Interview question 5: What can you do to make the automation feel more personalized towards clients?

- Use analytical tools in order to adapt the material towards the right customer
- Integrate the automated tool with other systems such as calendar, email with the system and in that way, create a more transparent way of working internally
• Listen to the needs of the customers and implement a solution in accordance to that

This question enlightened several improvements that companies faced today when choosing to implement an automated system. According to Heimbach (2014) the need for personalizing the automation towards the client is crucial to succeed since customized marketing activities can provide a higher return on investment in automated systems. This statement in literature was underlined by the conducted interviews, where all the companies thought that personalization the material towards customer would benefit the company. Two of the companies had already faced some digital transformation that could be even more personalized, as for example use analytical tools to obtain more accurate material towards the right customer. There were not only proposals for making the material more personalized in an external point of view towards the client but also how the organization itself could feel an internal personalization during the automation. An idea one company had was to integrate the automated system with other existing systems such as calendar and email and in that way, create a more transparent way of working internally in the organization. The answers to this question also illuminated once again that their clients were a very central part of their whole organization, as personalization was an important matter for all companies. “It is important to actually listen to the needs that customers require and adapt a suitable solution after that in order to obtain a stronger connectivity with customers and other stakeholders” was claimed by interviewee 4 that also proved the importance of personalization in marketing strategies according to the paper of Heimbach (2014).

Interview question 6: What are the most difficult parts when transforming to a new automated system?

• It is hard to see an actual difference when implementing a new tool or system because sometimes it is not used in the way it should
• Integrate the whole organization in the tool, people always have their own opinion on the implementation
• Include all prospected employees to use the new automated system and update the data
• Use the tool in the way it should be used, take advantage of all the features it brings and could benefit the company

As a digital transformation follows with several consequences, all companies agreed on that there are several difficult parts that faces the process when implementing an automated system. One
company claimed that when implementing a new system, people does not know how to use it and then it loses its purpose. Interviewee 1 mentioned that “it is hard to see the actual difference after implementing an automated system since not all employees believes this is an uncomplicated system”. Another citation of interviewee 3 highlighted that a difficult part when transforming to a new automated system was to integrate the whole organization to use the new tool since people always have their own opinion about things, “everyone has their own opinion on how it should look like and we cannot satisfy everyone. So, it has to be compromised.”

Subsequently, this result of dissatisfaction or uncertainty among employees on how to use the tool implied that people did not update the data which meant that the automated tool lost its purpose, according to company 3. The large amount of data that comes along with an implementation does not only have to be updated but also handled in a correct and useful way. As Cohn and Hull (2009) mentions, data has now become not only a source where companies obtain actionable knowledge from, but also a dominant component of affecting the marketplace and its strategies. Therefore, it is even more important to use the provided data in a useful way to take advantage of an automated implementation.

This proposed interview question stated the dissimilarities between the four case companies. Instead of facing these difficulties as something negative, company 2 and 4 proved more evidence on that these difficulties were something they already considered before implementing a new system and had resources to prevent them beforehand. Also, this interview question highlighted that according to company 1 and 3, their organizations are somewhat unwilling to become innovative and cross-functional cooperation is seen as something difficult and more challenging in their organizations. The reason for this could also be drawn from their amount of time operating in their specific industry as the companies 1 and 3 have existed for a longer time than company 2 and 4, leading to a larger more established organization to handle and adapt.

Interview question 7: What potential risks are considered when a company implements an automated system in a digital transformation?

- The digital transformation cannot satisfy every employee and a risk is unnecessary implementation by the lack of usage.
- Operational tools involve several stakeholders and in that way, affect the whole organization and towards the client if the implementation project fails
• If the tool is too complicated, people will not use it and not give it the time it needs to be learned.

When implementing an automated system that requires any change in a company when running a digital transformation of course bring several aspects that needs to be considered early in the process. As mentioned in the previous question one huge risk is the dissatisfaction of employees when it comes to using the tool in their daily operations. As one tool cannot satisfy every employee, as risk is that the tool is unnecessary implemented. Another risk is that an automated system is a very operational tool and involves several stakeholders. This fact must be considered before implementing to prevent it from involving the organization in making a negative impact towards the clients, which would be considered as a failed implementation. One respondent claimed that “if the tool does not have a clear usage, the organization will not use it since they will rather not give it the time it requires to be learned”. Two of the companies does not put any major importance on providing training for the employees, it is not as prioritize as it is for the two other companies.

Another risk that companies face is that there is no clear outlined marketing process and an automation could only complicate things. One of the companies believed that by investing in an automated marketing system, the organization need a working system before implementing any kind of automation. Interviewee 1 claims that “by implementing new features on old tools just worsens its actual functionality when you try to fix a system that has not been working from the beginning”.

Interview question 8: How does the digital transformation affects the digital/marketing strategies?

• Previous strategies will be analyzed and improved in accordance to implemented technology as part of the digital evolution/transformation
• Companies are afraid of implementing a new system that could take too much time to integrate in the whole organization
• Some automated systems are still unfamiliar, and companies do not know how to implement them, there is a strong lack of knowledge which lead to a none-implementation

Questionnaire question 8: In what extent to you think that a digital transformation, for example by applying an automated marketing system would affect the existing marketing strategies?
8. How does the digital transformation affect the marketing strategies?

This question is key when conducting the empirical data as it is of high importance to see how companies think when it comes to how affected marketing strategies are by a digital transformation. The two companies 2 and 4, that are considered as more innovative to applying automated tools as part of their organization, does include automated system in their current marketing strategies. The previous strategies are analyzed and improved in accordance to new technology as it is considered as part of the digital evolution of the company. It was also found from the interviews that company 1 and 3 are more careful with implementing new systems that would need a longer integration time since they lack resources to include the needed stakeholders. This circumstance may not change their current marketing strategies but the fact that some automated systems are mostly prevented in their case, it affects their strategies because an implementation could have been beneficial for the company.

Another finding from the conducted interviews and that was also mentioned in previous interview questions implied that some new automated system is still unfamiliar for all four companies. There is a lack of knowledge about these systems, and that is why companies are not willing to implement them before knowing more and get more knowledge about them. The marketing strategies are in that way affected since they remain the same, and could also lead to preventing a company’s digital evolution.

The results from the related questionnaire question proved that their answers were equally disposed in two different perceptions on how digital transformation affects marketing strategies. Two of the companies answered that it did only a small effect and the other two answered that it had some effect on the marketing strategies. This questionnaire did not prove any greater
dissimilarities among the four companies, instead they did have an aligned perception on what influence digital transformation had on respective marketing strategy.

Interview question 9: What are the expected outcome of an implementation of an automated process?

- One of the main outcomes of an implementation is cost savings
- Obtain new benefits due to new features and possibilities that comes from an implementation of an automated system
- Obtain a reliable ROI
- Deal with data complexity overall

After conducting the empirical data collection, it was found that the expected outcomes of an automated system were many. One of the main expected outcomes was cost savings and this was something all four companies agreed on. Another expected outcome was to obtain new features that would benefit the current systems, but this could also be a risk if the previous system did not serve its expected purpose. Interviewee 4 implied that “one expected outcome of an automated system is to obtain a better overview over the existing data, in that way we can deliver accurate and more precise data to our clients”. Also, a common answer to what companies expect when implementing an automated process is to obtain a reliable ROI to see what the advantages or disadvantages comes with an implementation.

Interview questions 10: During the digital transformation, do you feel there is any part in the process that needs to be improved?

- There should be more training for the employees to use the system in an appropriate way
- Get the tool more “trustworthy” by seeing if it will provide benefits or not
- Companies can generate measurable targets to follow up the result of the implementation
- Better decision making, stronger connectivity with customers and other external stakeholders

Questionnaire question 10: Does your company recognize what failures have been done before when implementing an automated system?
With an implementation of an automated system follow several suggestions for improvement. The interviews implied different suggestions, and their answers were in line with the results of the previous questions. One improvement according to interviewee 3 was that when implementing a new automated system there should be more training for the employees to use it to its full potential. As several automated tools are too complex, it could not be used to effectively and an improvement in this matter could be to get the tool to be more trustworthy by proving what the actual benefits that can follow with the new implementation. Another improvement suggested was that companies should generate measurable targets to follow up the result of the new implementation. “If the implementation of an automated process is set up in measurable targets, one can follow up the results on a continuously basis and in that way, measure the progress against those targets” according to interviewee 2.

The questionnaire related to this question proved that the four companies have different levels of recognition of previous failures when implementing an automated system. Three of the companies had a high to full recognition to their prevalent failures, while one company did not recognize the prevailing failures to the same extent.

Interview question 11: What are the greatest obstacles that arises when a company wants to automate/digitalize an earlier process?

- That the tools do not work the way it should, as it is a tool it can always have bugs
- An obstacle is that it takes a lot of time for a company to see result when implementing an automated system
• Lack of knowledge

The greatest obstacles that could arise when a company performs a digital transformation was that a tool or system can always have defects, and this makes the tool not easy to trust. Another obstacle is that it takes time to see results, and therefore according to interviewee 1 and 3, they are too lazy to invest in automated systems. Not only the lack of time is an obstacle but also the lack of knowledge that has proven the to be a result from previous questions. The lack of knowledge and the right resource allocation are factors that were missing among company 1 and 3.

Interview question 12: Why do you think that the company choses to implement a new automated system when you already have a working one but not automated?

• Companies are becoming more customer-centric and see the need for improvement to remain competitive.
• Disruption in the market when other firms are entering and require changing current business models
• Automated systems enable new possibilities that could benefit the company

This last question underlined the theory of Rogers (1983), that companies who invested in new technology is considered as innovators and allocated their resources into becoming more disruptive on the market. This fact also led to that these companies also obtained a higher return to shareholders than companies who low-performing innovators that spent their resources on trying to maintain their current non-working processes. As mentioned in the literature chapter, the diffusion of innovation theory also implies that diffusion is the progression describing how a new idea or product is recognized on the market and an introduction to a new product requires a change of the current working process and organizational behavior. The answers of company 2 and 4 to this question was in line with the theory as the companies were aware of a required change in the current business models as they perceived a disruption on the market caused by the automated systems.

Another finding from this question was that the four companies in general are becoming more and more customer-centric and in that way, understand the need for improvement to remain competitive on the market. Company 1 and 3 have realized that there is a disruption on the
market that requires changes in their current strategies but the problem they are facing is the lack of knowledge and commitment to the situation. Why companies decide to implement automated systems could also be that this new type of technology is a great part of the digital evolution that enables new possibilities that could benefit the company in the future.

5.4 Summary of results and analysis

Since a cross-case methodology have been used for this study, the results have been presented accordingly to the four case companies providing for a cross-case analysis. This have been done by identifying similarities and differences among the four companies. Therefore, when analyzing the outcome of the findings, the two observation categories that was analyzed was; how open the companies was to new technology and how much challenges and risks affected the decision of a possible implementation of automated systems.

From the answers the researcher could see a lot of similarities among the response of the interviewees. First, there was a great similarity in the awareness of that automated systems were indeed part of a digital transformation as well as that digital transformation had an impact on their existing marketing strategies. All the four companies agreed upon this fact. Another similarity of the answers of each company was the similar internal factors that drove a possible implementation of an automated system, and that was mainly improving internal efficiency as well as cutting costs. Also, all the companies agreed upon that personalization its marketing material towards the customer would benefit the company as well as increasing client satisfaction when becoming more personalized. Failures from prevalent implementations of automated systems was also recognized by most of the interviewed companies and considered beforehand. The differences on the other hand, was that the four companies did not consider themselves as on the same innovative level according to question number 2. From the related questionnaire, it could be seen that there were different answers when it came to innovativeness in accordance to accepting new technology and innovativeness comparing to competitors acting in their same industry. Another noted difference was their approach for handling challenges and risks along with a possible investment. According to company 2 and 4, difficulties were something they already considered before implementing a new system and had resources to prevent them beforehand. This was not the case for company 1 and 3, they preferred the whole organization aligned since they already had faced a lot of contradictions by indulging the organization towards a possible investment in automated systems. The researcher could observe that there were more
adversities from the last-mentioned companies which lead to a delay on implementing new technology since it would need a longer integration time to include the needed stakeholders. Also, the lack of resources or the wrong resource allocation resulted in a not enough needed training to learn the new implemented systems.

From these empirical results, the researcher could analyze the obtained answers and connect it to the performed literature review. The results from the four companies resulted in an observation connected to the theory of Rogers (1983), implicating the categorization of the company’s position in the diffusion if innovation curve. After analyzing the answers and the similarities vs differences in the results the researcher could say that company 1 and 3 was considered in the late majority category while company 2 and 4 where positioned in the early adopter category.

From the interview results, the researcher could see various similarities among the different case companies. Yet, a chasm could be observed between the positioning of companies 1, 3 and 2,4. According to Moore (1991), a chasm is between the early adopters and the late majority. The results that implies this positioning is due to the differences among the case companies. Company 1 and 3 did not adapt to new technology in the same extent as company 2 and 4. Meaning, they were well aware of what the automated systems could provide to their organizations, but did not have the right approach to conduct it. Company 1 and 3 preferably waited until the automated system, in this case marketing automation had become more established on their specific market to later implementing it themselves.

This chapter have summarized the results and analysis of the study to answer the overall research question. In the next chapter, the research questions will be answered. The concluding remarks of this study will provide for further research around this phenomenon and to overcome the chasm, final recommendations have been done that could serve as general suggestions for companies that are in the late majority category and thinking of implementing an automated system.
6. Conclusion and future work

This chapter presents the discussion of the conclusion of the study in relation to the research questions. The chapter also contains the implications of the study and recommendation for future research.

6.1 Research questions

The purpose of the thesis was to investigate if companies should invest in automated systems. To be able to fulfill the purpose, the following research question was formulated:

“How is information technology affecting marketing strategies?”

This research question was addressed by conducting four case studies with different operating companies in distinctive industries. The chosen companies had a different approach when it came to implementing automated systems. To answer the research questions, the research method included semi-structured interviews with the case companies. Also, a questionnaire was provided to facilitate the benchmarking of the results.

The main question was divided into two sub-question which aimed to answer the main research question. In the following section of this chapter, the conclusions found during the research will be presented.

6.1.1 Research question 1

*What are the external and internal factors driving a possible investment of automated systems?*

The research showed that successful companies in terms of innovativeness were driven by several factors, but mostly from a competitive perspective. Innovative companies want to stay up to date in accordance to the evolving information technology by approaching a digital transformation. One of the main internal factors that drives an implementation of an automated system is that companies aim for improving their efficiency within the organization as well as towards their clients. The research also proved that companies are very customer-centric and therefore the implementation of an automated system could satisfy the clients by delivering more accurate and personalized material. Another factor that had a major impact on investment decisions was that companies expected cost savings if deciding to implement an automated system.

An external factor driving implementations in automated systems, was that companies that choose to implement automated systems, often are considered as high-performing innovators
due to the right resource allocation, when low-performing innovators instead tried to ameliorate their existing processes without success.

In conclusion, the driving factors for a possible investment is summarized to be; improving efficiency, cost saving as well as remaining competitive on the market by adapting to new technology an in that way being considered as a high-performing innovator.

6.1.2 Research question 2
What potential risks and challenges occurs when investing in automated systems?

The empirical result of this study proved that along with an investment of an automated system follows several risks that should be considered. The main risk is that a system fails with its integration with the organization. The results proved that prior investments in automated systems proved to have failed due to failing the integration with other operational systems. A consequence of this, is that the automated system loses its purpose by not being updated and used in the manner it should. Another risk when implementing an automated system, is that there will always be an organizational opposition and therefore a strong leadership from the top is required to overcome the resistance that can make a digital transformation challenging to approach. The lack of knowledge in automated systems is also a risk that affects the wrong use of it and employees does not prioritize their time to learn the system because it is considered as too complex to use.

One other risk that was found after conducting the empirical research was that companies does not always have a clear outlined marketing strategy, and that affects the outcome of an automation in a very negative way.

In conclusion, there is several risks to consider if choosing to implement an automated system. The main risks that where highlighted in this research was; strong organizational resistance to the applied system, lack of knowledge in using the system and lastly automation could result in deteriorating current marketing strategies instead of enhancing them.

6.1.3 Answering the main research question

To answer the main research question, it was of importance to investigate the overall innovative positioning among these companies. Their approach to implementations of new automated systems described how innovative they were by adopting to new technology. In this multiple case
study, the companies where positioned in different categories proving that there was a chasm between two of the categories. This chasm led to implications for companies positioned in the early majority segment, meaning that risks and challenges should be carefully considered when implementing an automated system. Hence, by answering the two sub-research questions it can be concluded that both risk and challenges as well as the internal and external factors driving a possible implementation

These risks and challenges have been stated in the sub-research question which in turn creates an awareness for companies going in thoughts of investment. The other sub-research question defined that the overall reason for implementation of automated systems was due to their expected improvement of efficiency and cost savings, but mainly remaining competitive on the market. Hence, the researcher can conclude that to remain competitive on the market, companies in the early majority segment of innovation should adapt by considering and working with these stated risks and challenges to enable a possible implementation of an automated system leading to a change of their current marketing strategy. As automated systems are part of the new era of information technology, these need to be revised if positioned in the segment of early majority.

Therefore, companies positioned in the late majority category are very much affected by the digital transformation. The fact that competitors in respective industry do implement automated system, leads to a need for a change in their current marketing strategies. When competitors have succeeded with implementing automated systems, if affects the companies that are considered as less innovative, since they still need to consider the stated risks and overcome the challenges in order to remain successful. As the internal and external factors that drives a possible implementation of an automated system lands in the improvement of efficiency, cost saving but mainly remain competitive on respective market, it proves that companies that are considered less innovative have a longer run to take. Companies that have had difficulties or not yet implemented an automated system, should re-think their existing marketing strategies to remain competitive on the market.

This statement answer the question of how information technology affects marketing strategies. Companies considered as less innovative are more affected by competitors that have succeeded with automation and that is directly connected to how their marketing strategies are affected by information technology.
6.2 Validity and reliability

When discussing the validity of this thesis, one can conclude that the validity would have been increased if the interview questions was sent before conducting the interviews. This would have led to the interviewee to be more prepared and provide with better answers to the questions. As the purpose of the questionnaire was to add support to some interview questions, it was sent out after conducting the interviews in order for the interviewee to be able to analyze the discussion during the interview and answer the questionnaire with the provided background. This enhanced the validity of the answers. Moreover, to increase the validity of the research, the overall purpose was stated before the interview.

The reliability of the study could have been considered as rather low since it was a qualitative research. The reason for this depends on the human factor, where replicate interviews with following discussions are unmanageable since humans do not replicate answers even though the same question was provided (Madill, et al., 2010). Therefore, as stated by Collis & Hussey (2014) one can discuss that the reliability of this research tends to be low because it considered of mainly interviews. To overcome this low reliability, the questionnaire was provided in order to support the answers since the answers of a questionnaire is easier to replicate.

6.3 Research and industrial implications
In this section of the chapter, the research and industrial implications will be presented.

6.3.1 Research implications

This study contributes with more knowledge to a relatively poor researched phenomenon of automated systems. By providing empirical data in form of a multiple case study, the study contributes with general recommendations on how companies can think before implementing automated systems. Furthermore, this thesis also contributes to providing more knowledge to existing literature by connecting the empirical data of this study to the diffusion in innovation of automated systems that has not been done before.

6.3.2 Industrial implications

The aim of this study was to investigate if companies should invest in automated systems by researching the current situation in today’s market of automation. The findings from this research could serve as guidelines and recommendations for companies that intends to invest in automated systems in the nearest future.
After conducting this thesis several results were revealed that could serve as recommendations for companies that are in thought of investing an automated system. First, a company should make sure to be prepared for an automation by having clear strategies and objectives prior the digital transformation. Secondly, companies need to have the right resource allocation to enhance the possibility for a successful implementation. Also, training and education among employees to take advantage of all the features that a new implemented automation can bring. Lastly, companies should not make an automation to improve previous processes but instead reflect whether over earlier marketing processes if they still are working, the company should continue to use them but with a constructive balance of new technology and automation. In that way companies will remain updated in the digital evolution but also work with a plan. An absence of a strategy and a defined process of how to integrate the new tool with existing systems and process will only result in a failed investment.

6.4 Future research
I feel that covering the gap in knowledge regarding this matter was very useful, both in terms of literature but also for companies that are thinking about investing in automated marketing processes. This study found that a lot of companies do not feel secure enough to invest in automated systems, due to lack of knowledge in the area. Therefore, I hope this thesis have been an eye-opener for future research and companies going in thoughts of investment to embrace the risks and instead focus on the possibilities that could come along.
7. Reference List


Grossberg, K.A. (2016), The new marketing solutions that will drive strategy implementation, Strategy & Leadership, 44(3), pp. 20 - 26


Appendices

Appendix 1: Interview questions

Interview question 1: How do you generally see on digital transformations when transforming to a new automated system?

Interview question 2: What internal factors drive this new implementation/investment in the digital transformation?

Interview question 3: What external factors drive this new implementation/investment in the digital transformation?

Interview question 4: What internal processes are most affected when you make a digital transformation implementing an automated system?

Interview question 5: What can you do in order to make the automation feel more personalized towards clients?

Interview question 6: What are the most difficult parts when transforming to a new automated system?

Interview question 7: What potential risks are considered when a company implements an automated system in a digital transformation?

Interview question 8: How does the digital transformation affects the digital/marketing strategies?

Interview question 9: What are the expected outcome of an implementation of an automated process?

Interview questions 10: During the digital transformation, do you feel there is any part in the process that needs to be improved?

Interview question 11: What are the greatest obstacles that arises when a company wants to automate/digitalize an earlier process?

Interview question 12: Why do you think that the company choses to implement a new automated system when you already have a working one but not automated?
Appendix 2: Questionnaire

This questionnaire is part of my master thesis conducted at KTH, where I am investigating the impact automated systems have regarding the innovativeness in marketing aspects. The purpose with this short questionnaire is to get a perspective on the innovative awareness of how some companies consider themselves when it comes to investments in automated systems, such as for example Marketing automation systems and CRM systems. The answers of this questionnaire will be anonymous and the result will be used in a combined form in the thesis. Your response to these questions will be very valuable for this research and it takes around 4 minutes to answer. Thank you!

Questionnaire question 1: To what extent would you say that automated systems are part of a digital transformation?

- Automated systems are not a part of digital transformation
- Not at all, not such a big part of digital transformation
- To a low extent
- To some extent
- To a high extent

Questionnaire question 2a: How likely is it that your company’s investment in automated systems are driven by internal factors, such as costs and effectivity?

- Not likely at all
- Low likelihood
- Quite likely
- Likely
- Very likely

Questionnaire question 2b: How innovative do you consider your company to be in accordance to adapting to new technology emerging the market?

<table>
<thead>
<tr>
<th>Not innovative at all, that is not the focus of the company</th>
<th>Very innovative, we always strive for implementing new technology</th>
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<td>1 2 3 4 5</td>
<td></td>
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</table>

Questionnaire question 3: To what extent is your company aware of its own position in the curve of how “innovative” your company is adapting to new technology in relation to other companies?

<table>
<thead>
<tr>
<th>The company is not aware of its innovativeness comparing to other competitors</th>
<th>We know exactly in what innovative position we are in comparing to other competitors</th>
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<td>1 2 3 4 5</td>
<td></td>
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</table>
Questionnaire question 8: In what extent do you think that a digital transformation, for example by applying an automated marketing system would affect the existing marketing strategies?

- It does not affect marketing strategies at all
- A very small effect
- Small effect
- Some effect
- It has a very large effect on marketing strategies

Questionnaire question 10: Does your company recognize what failures have been done before when implementing an automated system?

- The company does not know of any failures from implementations in automated systems
- To a low extent
- To some extent
- To a high extent
- The company is very informed of previous mistakes from implementing a new automated system