



A case study of IoT companies active in the Swedish market; online marketing strategies and online communication.

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## Preface

This bachelor thesis in marketing was written during the spring term of 2017 at Halmstad University. We have gained knowledge in marketing with a focus on online marketing strategies and IoT. Hopefully, this essay will provide knowledge about IoT and online marketing strategies and be used as a motivation factor for future research.

We want to express our gratitude to those who have helped us during the course of this work. First we want to thank the companies and the persons interviewed for our study, without you this study would not have been possible.

We would also like to thank our supervisor Navid Ghannad who has been helpful during the entire process of this study with useful feedback as well as guidance.

We hope you find this study interesting and useful.

## **Abstract**

**Title:** A case study of IoT companies active in the Swedish market; online marketing strategies and online communication.

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**Authors:** Peder Gulliksson and Jonathan Riis

**Supervisor:** Navid Ghannad

**Purpose:** The purpose of this study is to investigate how Swedish IoT companies use online marketing strategies and online communication to reach out to their prospects and customers.

**Frame of reference:** In this part we will present our frame of reference. Our key concepts when gathering our secondary data where the Internet of Things, smart devices, online marketing strategies, digitalization, information technologies, ubiquitous computing, PR and new online strategies. These key concepts form the basis of our final theory, IoT and online marketing strategies.

**Method:** In this chapter we have described the method we used to collect our primary data. We have also presented a discussion about why we have chosen the methods we have used and what relevance they have for our survey. Finally, we present the reliability and validity of our sources and research.

**Empiric:** We have conducted a survey of how three IoT companies use online marketing strategies. The persons interviewed had great knowledge and experience in our research subject. In this way, we can create an understanding of how IoT companies use online marketing strategies.

**Conclusion/Implications:** The implications of this case study have revealed similarities and differences in how IoT companies use online marketing strategies. The following conclusions were drawn:

- The research indicates that the IoT industry will grow substantially in the near future.
- PR is a common and effective strategy used by IoT companies.
- Pull-marketing is a strategy used by all companies investigated in this study.
- Push-marketing is only used by the largest company in this study.
- Size matters. The size of the company has a direct impact on how online marketing strategies are used.

**Keywords:** Internet of things, smart devices, online marketing strategies, digitalization, information technologies, ubiquitous computing and IoT companies.

**Examiner:** Thomas Helgesson

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# 1. Introduction

*In this chapter the work of the study will be presented with the background knowledge of why it should be studied. Furthermore, it will have a problem discussion that brings up why this research area should be investigated and also the purpose of this study. This will lead to the research question, the delimitations, the keywords and the search terms of the paper.*

## 1.1. Background

During recent years there has been a huge technological change and for every day that goes by more and more devices are being connected to the internet. The phenomenon that not only computers and mobile phones are connected to the internet, but everything around us, has created a new word in our encyclopedias: *The Internet of Things*. Since the launch of the Iphone in 2007, companies have gained access to more personal and specific data about their customers and this has resulted in more personalized marketing towards the consumer.

New technology provides opportunities for marketers to find new innovative ways of reaching their targeted customers. The world is becoming more digital and everything is changing at a faster rate than ever before (Gilan & Hammarberg, 2016). We are on the cusp of super globalization and Sharma (2011) believes that there will be an exposed marketing war. Companies need to develop new ways of marketing themselves because today we are consuming products more frequently than before and this leads to global competition for more innovative products (Sharma, 2011).

Content is one of the most crucial parts of a company's strategy according to Gilan and Hammarberg (2016); Sharma (2011). Gilan and Hammarberg (2016) say that all marketing without a goal, purpose and strategy is meaningless. Companies need to have a strategy to be successful and the chosen strategy will help the company to stay on course and reach its goals. According to Sharma (2011) consumers are to a greater extent demanding new products and as a result of this there is global competition for more innovative products and the marketing needs to have a more tactical strategy than before. Consumers also demand that they be provided with access to all types of information before they purchase products, giving online marketing huge importance. Russell, Ching Pingsheng, Tong Ja-Shen Chen and Hung-Yen Chen (2013) tell us that the massive usage of the internet gives companies great opportunities for online marketing but also challenges marketers to create on-demand and relevant marketing that connects and engages the targeted customer.

IoT gives marketers opportunities to identify consumers' needs, wants and demands (Kotler, Armstrong & Cunningham, 2005). This is something that Nike took advantage of with their product Nike+. Nike were able to connect consumer, mobile device, wearable device and the internet, which gave Nike essential data about their brands' consumers and also other commercial benefits (Abashidze & Dabrowski, 2016).

*"We are all now connected by the internet, like neurons in a giant brain." - Stephen Hawking (Gilan & Hammarberg, 2016, pp. 46)*

## **Internet of Things**

It was in 1999 that the term the Internet of Things was created by the British technologist Kevin Ashton. The term defines a network that not only connects people but also the objects around them (Statista, 2017). The Internet of Things (IoT) is the “infrastructure of the information society” which means that connected devices can be remotely controlled through the internet and send out information to the user and to other parties, e.g. companies within a given industry (Lloret, Macías, Suárez & Lacuesta, 2012). IoT can be defined as a “vast network of smart objects which work together in collecting and analyzing data and autonomously performing actions” (Statista, 2017). There is a very broad range of devices that can be connected, like the computer or a smartphone, but IoT refers to more than that. Devices like vehicles, household utensils, manufacturing devices and even entire buildings can be on the list of IoT objects (Vermesan & Friess, 2014). IoT is a fast-growing industry which has grown from 8.7 billion connected devices in 2012 to 28.4 billion devices in 2017, and it does not stop there. According to Statista (2017) and Abashidze et al. (2016), the expected number of connected devices in 2020 is a breathtaking 50.1 billion units worldwide.

Gartner’s (2017) research about installed based connected units indicates huge growth in the industry: from 6.4 billion devices worldwide in 2016 to 20.8 billion devices worldwide in 2020 with private consumers accounting for the greatest number of connected things with approximately 4 billion units 2016 to a fascinating 13.5 billion units in 2020 (Gartner, 2017)

## **Smart devices**

Smart devices have existed for many years but only in recent years has the technology become more common. Devices that are digitally connected in our homes, and can be remotely controlled through the internet, have increased rapidly in the market in recent years. The revenue worldwide of smart devices is estimated to US\$25.368m in 2017 and the revenue is expected to show an annual growth rate of 33% per year until 2021. That will result in a total market volume of US\$79.289m in 2021. The household penetration of smart devices is 5.3% in 2017 and is expected to hit 15.6% in 2021 (Statista, 2017). In a global comparison perspective, it has clearly shown that smart devices are most popular in the United States which has around 58% of the global market. In 2021 it is expected that the number of active households worldwide will amount to 234.6m (Statista, 2017). Smart devices is to connected directly or indirectly to the internet via a gateway and their main purpose is to control, regulate and monitor different functions.

## **1.2. Problem Discussion**

Over the past 10 years, IoT has become a major talking point with the increasing speed of the digitalization. According to Gartner (2017); Statista (2017); Abashidze et al. (2016) the industry of IoT indicates high growth in the coming years. Even though there are four times more IoT devices than people in the world in 2017, many companies and researchers consider IoT to be something for the future. With this in mind, companies within this industry will have great possibilities to growth in the near future. The media noise today is so great that the traditional way to communicate with consumers has become outdated. Today’s “online customer” is exposed to advertising more often than ever and consumers have learned to filter out the things they think are unimportant (Gurău, 2008). Due to the fact that consumers nowadays perceive a “media noise”, marketing needs to be relevant and attracting. Sharma (2011) says that the market climate is becoming more aggressive and companies need to think of new ways to reach out when marketing their products. This is clearly shown in research conducted by IBM (2015) which clarifies that only 22% of consumers think that the

average retailer understands them and only 21% of consumers think that the marketing messages they receive from companies are relevant.

Over the past few years, there has been a tremendous development of data-intensive instruments that transform societal and relationship management, optimizing search engine marketing and exclusive networking that are eliminating traditional forms of marketing. This is what Sharma (2011) names “A new era-new demand-exclusive marketing strategy”.

To meet the new competition in the “new era-new demand-exclusive marketing strategy” Sharma (2011) says that companies’ marketing needs to be ready with competent strategies and that the basic thing to do is to think out of the box and make strategies directed at the shifting dynamics in the market. As mentioned before, the IoT market is according to Gartner (2017); Statista (2017); Abashidze et al. (2016) going to prosper in the near future. This indicates that the companies active in this market will have a great opportunity to expand, but how should companies market themselves to be able to take advantage of this growing market?

As presented in the problem discussion the IoT industry indicates huge growth for the coming years but there is a lack of research done on how companies within this industry use online strategies and communication. Both on which strategies they use and also specific tactics in their marketing content.

### 1.3. Purpose and research questions

Based on the problem discussion, the purpose of this study is to investigate how Swedish IoT companies use online marketing strategies and online communication to reach out to their prospects and customers.

*In order to fulfil the purpose of this thesis one research questions have been formulated:*

*Q1: How do IoT companies use online marketing strategies?*

### 1.4. Delimitations

The delimitation of this essay is to solely investigate the practical aspects of how companies in the IoT industry use online marketing strategies. Technical factors are excluded from this study and so is the consumer perspective. We will therefore exclusively investigate the industry of IoT. This study is completely free from IT and the other technical fields that we believe are not relevant to our purpose. We will, for example, not go into how online platforms are constructed and operated. In the cases where we mention the perspective of the consumer this is only to describe and illustrate possibilities for companies’ marketing.

## 2. Frame of reference

*In this section we present our frame of reference. Secondary research will be presented in this chapter and is retrieved from databases like Scopus, Diva, Emerald, Web of Science and Google Scholar. Section 2.1 to 2.1.3 is solely to define and explain IoT and its possibilities.*

### 2.1. Internet of Things

Llorent et al. (2012) explain IoT in their article. IoT is the ability to connect any device (thing) to the internet. For example: TVs, phones, fridges and other home devices. With IoT, devices are able to communicate among themselves and also with people: new ways to communicate are developed. With the use of wireless connectivity, communication between the devices (or the devices and humans) is available anytime and anywhere. Key technologies of IoT are RFID technology, sensor network and detection technology, intelligent technology and Nanotechnology.

With the use of IoT, business leaders will be able to understand more deeply what is happening in their company and how their customers behave. By integrating information from IoT into systems and processes, businesses will be able to streamline their work structure, improve customer satisfaction, discover new business opportunities and foresee risks and threats in their market (Hamm, 2015, December 15).

Llorent et al., (2012) continues by expressing that the number of appliances in our homes is increasing. Llorent et al. (2012) agree with Gilan and Hammarberg (2016) that everything around us is being integrated with technology. Take for example the Swedish telecommunication company Telia which has an IoT device that enables cars to be connected online. This gives the user the ability to get wifi in the car, see where the car is parked, receive an alert if the car is disturbed and see the driver's log of the car - everything directly in the user's mobile device (Telia, 2017).

#### 2.1.2. Internet of Things in marketing

According to Abashidze et al. (2016), IoT allows the owner to gain a wide variety of benefits. They give the examples that by using the technology it is possible to remotely monitor blood pressure and heart rate or integrate energy-consuming devices into one IoT-powered system and thus reduce power consumption. Considering marketing Abashidze et al. (2016) give the example that a smart refrigerator is able to monitor product supply and suggest that its owner buy something when there is a shortage of products, or even buy it for the owner. Abashidze et al. (2016) also say that IoT can be considered as a tool for promotions of products and services by communication with consumers, collecting marketing data, target audiences and other marketing purposes. Abashidze et al. (2016) continue by saying that even though the marketing opportunities through IoT are boundless, many marketers consider it to be the future of marketing rather than something that can be done in the present.

According to research conducted by IBM (2015), only 22% of consumers say that the average retailer understands them and only 21% of consumers think that the marketing messages they receive from companies are relevant. By using IoT, marketing and communication with the consumer can become more personal than ever before, to target a desired audience and provide a new level of precision (Abashidze et al., 2016). Abashidze et al. (2016) say that companies will be able to offer a product or service to each of their

separate customers, enabling more sophisticated and personalized marketing and thereby minimising the irritation of annoying advertising for consumers.

IoT can be used to improve all aspects of marketing. The technical capabilities of IoT will allow marketers to plan and manage marketing campaigns in a completely innovative way. IoT gives marketers opportunities to identify consumers' needs, wants and demands. Kotler, Armstrong and Cunningham (2005) explains in their book 'Principles of Marketing' that needs wants and demands are a part of basic marketing principles. 'Needs' covers the customers' most basic human requirements. 'Wants' refers to a specific product resulting from the customers' needs. 'Demands' is when the customer wants something and also has the ability to pay for it. 'Wants' thereby converts to 'demands'. With IoT, these consumer requirements will become easier to identify. Thereby, the competition between companies' marketing will intensify and the ones who manage to use IoT in the most effective way, will win consumer loyalty (Abashidze et al., 2016)

Abashidze et al. (2016) state that one of the best known examples of using IoT technologies for marketing is Nike+. Nike is able to connect consumer, mobile device, wearable device and internet. The main function of the application is that when the user puts the wearable device inside his/her Nike running shoe, the user is able to track his/her jogging routes, measure speed, count calories burned etc. All of this information is then transmitted to the application in the phone and the user is able to monitor the progression. It is also connected to social media so in the app you are able to add each other in friend lists, challenge each other and view results. Inside the app the user is also able to purchase Nike clothes online.

For the marketing team at Nike, the application helps gather essential data about the brand's consumers. That kind of precise information such as age, gender, location, exercising habits, routes, email addresses etc, is priceless information for Nike. And on top of that they get it all for free. This kind of market information would have required expensive marketing research if it done without the app. Another benefit of the application is that it is integrated with social media, allowing Nike to have close and frequent communication with its consumers. And by allowing users to make 'in-app purchases' it also brings commercial benefits. All of these benefits demonstrate the excellent use of IoT technologies (Abashidze et al., 2016).

### 2.1.3. New technology

After the IT boom around 2000, the opportunity to develop technology increased rapidly. We are introduced to new technology on a more frequent basis now than before the internet changed the market. Gilan and Hammarberg (2016) write that thanks to digitization, anyone at any time can launch a product on a global scale and if the product is good enough it can rapidly become a global success. To give an example of this, Gilan and Hammarberg (2016) say that the game Angry Birds reached the same number of users in 35 days that the telephone did in 75 years, which is demonstrated in figure 1.

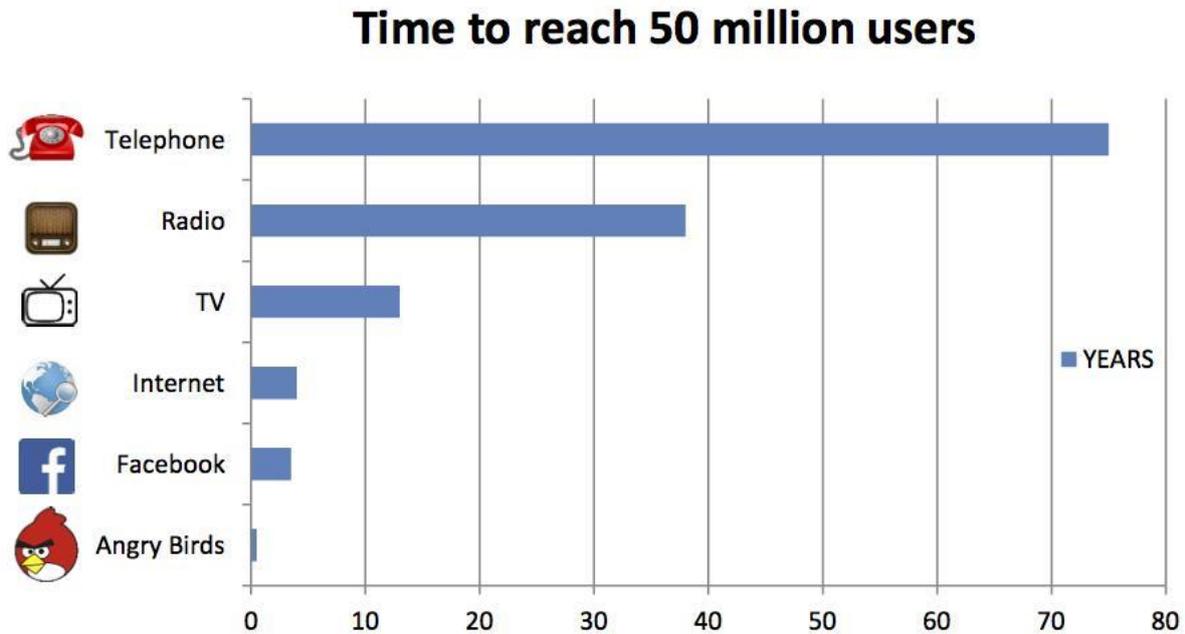


Figure 1. "Time to reach 50 million users"  
(Gilan & Hammarberg, 2016 pp.47)

In recent decades, the strategy of 'mass customization' or one-to-one marketing has evolved thanks to the opportunities the internet has provided according to Goldsmith and Ronald (2004).

Today, almost every person owns technology that is connected to the internet. Marketers have since the revolution of the smartphone, used this technology to give customers more personalized promotions. The technology of smart devices has now also reached our homes, and nowadays everyday devices such as the fridge can be connected to the internet (Goldsmith et al., 2004).

## 2.2. Online communication

Online communication plays a big part in how companies reach their targeted customer. According to Russell et al. (2013), the internet revolution has given us various social networks and the opportunity to reach the internet through our smartphones has produced a new generation of more refined and proficient customers. The massive usage of the internet gives companies great opportunities for online marketing but also challenges marketers to create on-demand and relevant marketing that connects and engages the targeted customer (Russell et al., 2013).

Sharma (2011) believes that the internet has changed our behaviour, our decision-making process and how we do business. The internet has considerably shortened the distance between places and has also given us supplements to old communication techniques.

Mobile technology has allowed the consumer to always be connected and to have control over his/her own experience. According to Martha and Teague Thomas (2013), customers want their travel experience to be smooth and they are no longer locked to a desktop device. This freedom has allowed customers to create value whenever they want to. As companies can push information more often, new technology has made it possible to expand the duration

of time for potential interactions; the customer can choose how often and when and where to take in the information.

In the article by Kansal (2014), he states that the internet has transformed the consumer from a passive recipient of information to a more active user and often even a co-producer of information. This has resulted in a shift of power from the marketer to the consumer, and consumers online have changed their behaviour towards online marketing. Consumer behaviour online does not follow the traditional ways of thinking. This is something that is crucial for marketers - understanding their consumers' behaviour. If the marketer understands the consumer's buying behaviour, what affects them or not, the marketer is able to develop more efficient marketing strategies that work better on this new type of online consumers.

Gurău (2008) points out three specific characteristics that the internet has changed in the classical communication procedures. These characteristics are what distinguishes internet marketing communication from other communication channels.

**Interactivity** - with the internet the marketer has multiple possibilities of interactive communication. The marketer is able to get direct interaction between the individual consumer and software applications (Gurău, 2008).

**Transparency** - online information is transparent, everything published online is available for everyone, unless the information is specifically protected (Gurău, 2008).

**Memory** - Information published online is not only broadcast and available for online users, it is also stored there. The information remains online until it is deleted (Gurău, 2008).

Gurău (2008) then states that these characteristics are changing how the online consumer behaves. Marketers must adapt to the online consumer's new way of thinking. With the internet, the consumer gets connected to the companies. The traditional communication channel offered a one-way street for the company to communicate to the consumer. Companies had the resources to send information through a very wide channel but the recipient on the other hand had few options to communicate back to the companies (Gurău, 2008). The new communication channel with the internet at the cutting edge is more of a network than a channel. The gap between the recipient and the company is gone. Everybody at the company involved with publishing the content online is now one click away from interacting with the recipients. Some companies have also embraced these new possibilities and installed some sort of 'contact us' button on their website to make it even easier to get input from the recipients (Gurău, 2008).

Internet users are also connected to each other. Gurău (2008) says that when the users are one click away from the company, they are also one click away from other internet users. In this new environment, the company's information and marketing can be discussed online between online customers without the company knowing. Shankar and Malhotra (2007) tells us that everybody is a communicator, and the company is now just part of a big network.

Gurău (2008) writes that before the internet it was hard and time-consuming for customers to gather information. Companies could make statements, and it was very hard for the average consumer to challenge these with some sort of valid information. Now it is so much easier to gather information online. Consumers can discuss and dispute information that companies put online within hours after it is published.

Gurău (2008) points out that the ‘online world’ has brought us new ways to communicate such as email, voicemail, fax, cell phones, social media, etc. This has increased the competition for the company to reach the customer with its marketing. The ordinary channels that used to be efficient to communicate with are now old-fashioned. The customer has learned to filter out that type of communication. The ‘online customer’ has learned to search for information rather than to just listen to what the companies communicate. Customers nowadays ‘pulls’ the information that interests them rather than letting the companies ‘push’ the information onto them. Rowley (2001, 2004) agrees with Gurău (2008) and states that in the ‘online world’ information must be easily accessible, customized or customizable.

### 2.2.1. Digital communication in PR

The purpose of public relations (PR) is for organisations to create relations with stakeholders consisting of the media and press. Potential and current consumers are the main stakeholders that companies use PR to create relations for (Botan & Taylor, 2004). According to Huang-Horowitz (2015), PR is closely related to transparency and word of mouth (WOM). When PR appears to be transparent and honest it will gain credibility and inspire confidence among the stakeholders (Huang-Horowitz, 2015). WOM is also related to credibility and confidence when creating awareness. According to Philips and Young (2009); Lipschultz (2014) one of the best ways to spread a beneficial rumour about an organisation is through a WOM where the rumour is passed on from one friend to another. Philips et al. (2009); Lipschultz (2014) say that when a message is delivered via a reliable source the information is perceived to be more truthful than if the message comes directly from a company’s ad for example.

According Philips et al. (2009), PR has gone from traditional press releases to a more complex area that has emerged from the rise of online bloggers and wordpress which has made it possible for ordinary people to express their thoughts in the public. Philips et al. (2009) say that because of this PR, practitioners have come closer to their audience. Nowicka (2012) continues the subject and says that the online space has moved the audience closer to journalists and politicians. When spreading a message more rapidly and extensively along with creating trust and showing transparency, it is important to capture the trends at the right moment, since what is trendy and hot today can be unpopular tomorrow (Nowicka, 2012).

### 2.3. Online strategies

There are numerous different types of online marketing strategies. According to Sharma (2011), we are on the cusp of a new era of super globalization and that means that there will be an exposed marketing war. Consumers are to a greater extent demanding new products and as a result of this there is global competition for more innovative products and the marketing needs to have a more tactical strategy than before. Consumers also demand that they be provided with access to all types of information before they purchase products, giving internet marketing huge importance. Fernández-Montes, Ortega, Sánchez-Venzalá, and González-Abril (2014) state that nowadays when everything is getting digitalized, products that are connected to the internet and ‘always online’ are recognized as a revolution in the development of smart environments.

In recent years, there has been a tremendous development of data-intensive instruments that transform societal and relationship management, optimizing the search engine marketing and exclusive networking that are eliminating traditional forms of marketing. This is what Sharma (2011) calls ‘A new era-new demand-exclusive marketing strategy’.

### 2.3.1. Next generation strategies

To meet the new competition in the 'new era-new demand-exclusive marketing strategy', Sharma (2011) says that companies' marketing needs to be ready with competent strategies and that the basic thing to do is to think outside of the box and direct strategies at the shifting dynamics in the market. There are a few things that need to be done on a regular basis to get continuous response from a marketing campaign.

Sharma (2011) gives the following instructions for online strategies:

***Be Dynamic*** - Online marketing should always remain dynamic. To just produce a campaign or advertisement or any other marketing campaign will not be enough in the near future. The marketing should be fresh, innovative, flexible and based on the customer's taste, needs and the orientation of the market (Sharma, 2011).

***Proactive 'T' strategy*** - Organizations should understand what their target is. If they aim for the wrong target, this will create the wrong image of the brand, causing a decrease in sales and impacting the overall image of the organization negatively. To find the correct target segments you need to have good research. Maximum failure of product sales online is due to the wrong targeting strategy (Sharma, 2011).

***Selecting the correct path*** - It is important to utilize an appropriate media vehicle. One should know where to put the advertisement because placing the advert on the wrong site can harm the brands image (Sharma, 2011).

***Right direction*** - When using a search engine, social media site or a relational media site, it is very important that the visitor is pointed in the right direction. The link used must be appropriate and should lead the customer to the product that is being advertised. Many times this is not the case, especially on travel sites, and the result of this is that very few customers visit those links and consequently demand decreases. The right direction will save the customer time and will result in loyalty towards the organization (Sharma, 2011).

### 2.3.2. Push- and pull-marketing

In online strategies, there are two types of strategies that are commonly used by companies and they are push- and pull-marketing. Push-marketing means that companies send out advertising without the consumer asking for it. The goal with this strategy is to create a desire and a need for the company's products in the customer's mind (Rimlinger, 2011). In this way, the company has control of its advertising messages, how the consumer sees it and also when the consumer sees the advertising. Mass mailing direct mail and in particular shared mail is a good example of push marketing.

Baines, Fill and Page (2013) define the push-strategy as a marketing communication strategy that is used to communicate directly with end-user customers, whether consumers or other organizations within a business-to-business context.

They also define the push-strategy in a similar way to Rimlinger (2011), and says that it is a marketing communication strategy that is used to communicate with channel intermediaries such as dealers, wholesalers, distributors and retailers (Baines et al., 2013). Mosley-Matchett (1997) says that push-marketing requires less resources in the form of financing and effort in time but it has a disadvantage because customers can perceive it as spam. Pull-marketing means that it is the consumer himself/herself that who requests the information or product. In this strategy, it is the demand from the consumers that shapes the company's strategies

(Rimlinger, 2011). When using pull-marketing it is easier for the companies to attract their ideal customers because the consumers see the pull-marketers as experts in solving their problems.

To be seen as an expert from the consumer's perspective also makes the company seem more credible and this credibility gives the companies a greater chance to be in the consumer's top-of-mind (Bowen, 2003; Sands, 2003). To be in the 'top-of-mind' position will make prospects come to your company when they want to buy a product, and existing customers come to you when they want to buy more. Bowen, (2003); Sands (2003) say that push-marketing is an old strategy that no longer is as effective on the new up-scaled connected market. Rimlinger (2011) disagrees with Bowen (2003); Sand's (2003) conclusion and continues his explanation of push-marketing and says that mobile applications are a great example of a push-marketing tool because this can reach the customers wherever they are.

Gilan and Hammarberg (2016) explain why you should use and develop mobile applications to enhance your marketing. The greatest advantage with a mobile application is that you have the user/customer focused only on your company and your services and products. The proximity to the customer that a mobile application provides in this time of digital noise as mentioned by Gurău (2008) is a great competitive advantage that will enhance your company's marketing.

### 2.3.3. Content marketing strategy

Gilan and Hammarberg (2016) agree with Sharma (2011) that content is one of the most crucial aspects when creating a strategy. Gilan and Hammarberg (2016) develop the theory of content strategy and say that all marketing without a goal, purpose and strategy is meaningless and that this also includes content marketing. To win the communication war that is now ongoing on the market you need to have a strategy. The strategy you choose helps you to stay on course so you can reach your goals. The strategy you choose helps you in the entire process and below are some important elements that you should think about in your strategies.

***Define your goals:*** What do you want to achieve with the content you create? Is it to strengthen your brand or to drive sales? It is important that you define a sum that is measurable and concrete (Gilan & Hammarberg, 2016).

***Choose your public:*** You need to know who your public are that you produce content for. To produce good content, you need to know who you going to deliver it to. Good content comes from three given sources and they are the following: your customer's interests, your company's organisation and trademark and your search terms (Gilan & Hammarberg, 2016).

***Let your goals define your content:*** Do not use all online platforms on the web to market yourself, choose with care the platforms you know your customers use and be a 'world champion' on those platforms (Gilan & Hammarberg, 2016).

***Video and moving pictures are the best content:*** In the digital revolution that is going on right now everything should be faster, more dynamic, more basic and better looking. Moving pictures should be a vital part of the content strategy (Gilan & Hammarberg, 2016).

***E-mail:*** There is a tremendous power in marketing through e-mail. Through sending e-mail to your customers you will drive a quality traffic that will generate income (Gilan & Hammarberg, 2016).

## 3. Method

*The data used in this paper is primary data collected from three companies and secondary data collected from scientific papers. Primary data is data that is collected from a field under control and supervision. The collected data used in this method will be classified into information and standardized so it can be put in a computer. The data is collected to answer the question in this research (Jacobsen, 2002).*

### 3.1. Choosing a method

When choosing a method there are two types of choices according to Jacobsen (2011): describing and explanatory methods. To know what method is most suitable for this study it is important to know what the purpose of the study is. When choosing a describing method, you want to create knowledge about how something really is in reality and not how it is perceived to be. An explanatory method on the other hand focuses on why reality looks like it does (Jacobsen, 2011). This study emanated from a describing method because it will investigate how companies in the IoT industry uses online marketing strategies. This will create knowledge about how something really is.

#### 3.1.2. Inductive and deductive methods

According to Jacobsen (2011), there are two ways to collect data: inductive and deductive methods. The inductive method is when you take empiric data and move on to theory. This means that from the beginning of the paper there is no knowledge of the investigated area of the author. Therefore, the author's personal preferences do not affect the study to the same extent. The deductive method is when you take theory and move on to empiricism. This means that the author forges expectations about how the world looks and then investigates whether the expectations match with the reality. The risk with this method is that the author's personal preferences can direct the result towards his/her own preferences. This paper emanated from a deductive method. The risk (biases) that personal preferences could affect the result of this paper is known. With this in mind, personal preferences have been taken away in the interview and the conclusion of this paper.

### 3.2. Qualitative method

According to Jacobsen (2002), the definition of the problem should determine the choice of the primary data. According to Saunders, Lewis and Thornhill (2009), the research approach could be either quantitative or qualitative. If applying a quantitative approach, quantitative data is used to achieve a generalizable result (Saunders et al., 2009). A qualitative approach, on the other hand, is more appropriate when using qualitative data to develop a deeper understanding of a certain situation (Saunders et al., 2009). As the purpose of this study was to describe and deepen the understanding of how IoT companies use online marketing strategies, a qualitative approach has been used. This study will include interviews from companies active in our research area. The sample of the respondents is crucial because this can affect the answers given; different respondents can have differing views on the subject. The main objective of the qualitative survey is to gain knowledge about companies within the IoT industry and therefore it is important to select respondents that are equivalent to the target audience and have knowledge about the subject (Jacobsen, 2002). In this paper we have chosen to limit our research by only interviewing companies that are active in the Swedish market and people with great knowledge of the subject.

### 3.2.1. Sample selection

There are two ways of choosing the sample selection: probability sampling and non-probability sampling (Saunders et al., 2009). Probability sampling is often used when doing surveys and experiments and this makes them best suited for studies where the data is randomly collected from a pre-defined population. According to Saunders et al. (2009), the probability sample selection method is inappropriate for qualitative studies and will therefore not be used in this research. When using non-probability sampling, the sample is intentionally selected to represent the chosen population and in this study the sample will include the people with the most appropriate knowledge about and experience of our research subject.

### 3.2.2. Semi-structured interview

A semi-structured interview is characterized by open questions at the beginning that gradually become more tapered and more detailed. According to Patel and Davidson (1994); Kylén (1994), this is a common way to start an interview. Starting the interview with some more general questions can help the person interviewed to feel more comfortable and less vulnerable, leading to a more natural dialogue. A semi-structured interview method is based on a template where specified questions exist, but questions are adapted to the respondent and factors like the respondent's background, environment and situation. This contributes to the fact that the interviews that we have performed do not become identical with each other but dependent on the respondent and the situation (Patel et al., 1994).

## 3.3. Data gathering

This study covers the two most important forms of gathering information - primary and secondary data. Primary data is gathered directly from the source, whilst secondary data is information that is gathered from different sources than the original source (Jacobsen, 2002). Jacobsen (2002) suggests in his book that it is good to use different types of data because it is difficult to only use one type of information. When collecting primary data there are several different methods to apply like interviews, observations and questionnaires (Saunders et al., 2009). When using a qualitative method there are methods that suit this method better than others. Therefore this study will use semi-structured interviews.

### 3.3.1. Primary data

In this research, primary data is collected by observations and by interviewing persons who are active and have great knowledge of the subject. According to Jacobsen (2002), interviews are a considered method when fewer items are being reviewed. Jacobsen (2002) also mentions that interviews are a less controlling alternative than other methods and this gives the opportunity to ask supplementary questions that can adapt the study during the process of the research work. Saunders et al. (2009) say that semi-structured interviews are a method that is well suited for qualitative studies. The actors we have chosen to interview are active in the Swedish market and within our subject. An interview in a physical environment is the most suitable method to use, but interviewing via telephone and by digital solutions are also comfortable alternatives according to Jacobsen (2002). Because of the geographical distances to the interviewed companies we solely did telephone interviews. To find IoT companies active in Sweden, we contacted companies that was listed on IoTguiden.se. The three companies were chosen because their difference in revenue and number of employees. All three companies work with business to business (B2B).

### 3.3.2. Secondary data

Our secondary data and frame of reference are gathered from relevant scientific articles, mainly from the database 'Web of Science', 'Emerald' and 'Scopus'. The search terms we used to find secondary data were words like 'IoT', 'digitalization', 'online strategies', 'online communication', 'new strategies' etc. It is important to be able to be critical of data that has been gathered from secondary sources, because that information is collected to serve a purpose in a different article than this one (Jacobsen, 2002). We have been critical of the data we have gathered and have to the greatest extent used triangulation to have more validity in our secondary data.

### 3.3.3. Analysis of the method

According to Jacobsen (2002), the focus in the analysis process of the qualitative data consists of four parts - systematization, description, categorization and to combine. During the entire process of this work we have kept this in mind because the purpose of this research is to gain as detailed and accurate information as possible without having any influence on the data. In the analysis we have systematized the data so it will be easy to read and understand; the systematization is a crucial part to convey the collected data. The purpose of the categorization of the data is to simplify the collected detailed data so it can be comparable in text according to Jacobsen (2002). When combining the data it is possible to see what has been said and done which can show a hidden relationship between the data (Jacobsen, 2002). Trost (2010) says that there are no models or rules on how to analyse the information; it is all about using creativity and imagination as tools. We started with a 'within case analysis' where we analyzed every interview and company alone. After that we continued with a 'cross case analysis' where we investigated if there were any similarities and differences between the different cases. Jacobsen (2002) believes that these two analysis methods, an analysis of individual cases and then the analysis where several cases are compared, complement each other and give a greater understanding of the material.

## 3.4. Credibility

The information and data that is collected and used in this study needs to have validity and reliability. Biases concerning the information must be minimized because otherwise the conclusion of this paper will be invalid and the result cannot be trusted (Jacobsen, 2002).

### 3.4.1. Reliability

Reliability refers to if a repetition of the study will give the same research results or not (Ritchie, Lewis, Nicholls, Ormston, 2014). Due to the uniqueness of a qualitative study where there are just a few respondents interviewed, it is not likely that the study will be replicable. Therefore in a qualitative study less actions is taken to prevent replicability than in a quantitative study (Ritchie et al., 2014). However a few reliability concerns have been taken into account in this study. These are the sample selection, the analysis and the design of our research. The sample selection has been qualified from the respondents' experience, knowledge and position in the companies that we have chosen to research in this study. The most important criterion is the level of knowledge about our research subject and is considered as a core criterion when choosing respondents. Semi-structured interviews were used throughout the entire study to make the research consistent, while allowing the respondents to express their knowledge and experiences. All the respondents had to answer to the same interview guide to ensure that we covered our research subject in all the interviews.

The analyzed data collected from the interviews was compared to the secondary data from existing literature to minimize the transforming effect.

### 3.4.2. Validity

According to Ejvegård (2009), validity refers to the researcher measuring what is supposed to be measured in the study. The validity is dependent on the fact that the measured area of research is explained in the framing of a question. Ritchie et al. (2014) say that validity can be divided into internal and external validity. External validity refers to whether the results gained from the study are applicable to other parts of the population and internal validity is whether the researcher investigates what is claimed to be investigated in the study. Ritchie et al. (2014) also say that to ensure validity, the following areas must be taken to consideration: sample coverage, identification or labelling, interpretation, capture phenomena and display. To increase the validity of the qualitative research investigated, we have checked different statements from the interviewed persons by for example searching their website, researched their online communication and marketing to see if it agrees with what the interviewed person says. We also recorded our interviews so that we did not misunderstand or forget information to increase our validity. To ensure covering all areas we have used an interview guide, and to capture the phenomena we used semi-structured interviews that allowed the respondents to discuss their experiences and thoughts freely, while staying within the research subject. In our sample selection we had a core criterion that the respondents should have long experience and good knowledge of the subject.

### 3.5. Data saturation

The sample size depends on the objectives of the study, the resources and time available. It is also determined on the basis of theoretical saturation - the point where new data is not believed to bring additional insights to the research question (Mack, Woodson, MacQueen, Guest, & Namey, 2005). As IoT is a new phenomenon, we were limited to only a few people and companies that had the experience and knowledge of our subject that we required. We were also limited to relevant respondents that were willing to be interviewed. However, we found three interviews to be sufficient in providing enough of an empirical base to answer our research question. We also felt that after the last interview, no major new insights were given.

### 3.6. Multiple case studies

Within the qualitative research approach there are many different strategies of how to gather information, such as ethnography, case studies and grounded theory (Daymon & Holloway, 2011). When the question is about 'how' and 'why', a qualitative case study is often most applicable, because it provides the researcher with rich and detailed information. According to Daymon and Holloway (2011), a case study is also suitable if a researcher is examining an issue or a problem within a particular context, which is done in this research. Based on the nature of the research questions, a case study is the most appropriate one. Yin (2014) argues that case studies aim to investigate a phenomenon within a content by using multiple sources of evidence to achieve triangulation. Since the aim is to investigate how companies active in the IoT industry market themselves online, a case study with triangulation is an appropriate design to answer the research question. Multiple sources are one of the strengths of case studies (Yin, 2014). This study is based on a multi-case design to investigate which strategies several companies use in their marketing. Yin (2014) writes that multiple case studies consist

of single cases which are presented as separate sections. These are also presented in a cross-case table where the individual cases are presented as a set of appendices. The three cases are presented under separate sections in chapter 4, empirical findings, and in chapter 5, the analysis.

Yin (2007) argues that triangulation is a strength in a case study since it provides the researcher with multiple sources of information and deep insights. Since the study is based on multiple sources (interviews and observations) that strengthen each other, conclusions become more convincing. To achieve triangulation, the authors of this thesis conducted interviews, observations of the companies websites and searched the web for information that validated the information gained from the interviews.

Access to deeper insight into how companies active in the IoT industry use marketing strategies was achieved through interviews and observation of their previous marketing. By doing this we managed to get information from two parts by triangulation. According to Daymon and Holloway (2011), triangulation can improve the validity and also overcome the biases from just gathering data from one perspective.

## 4. Empirical framework

*In this chapter we present our qualitative data. Each qualitative part begins with a brief presentation of each interview object. Then we have summarized each interview and given the most important parts of the interviews. We have removed parts from the interviews that we found irrelevant to our research. We have chosen to interview three companies that work within the IoT industry and mainly business to business. We have also chosen three companies with different sizes to get the opinions and views from different perspectives.*

### 4.1. DeviceRadio AB

DeviceRadio is a company based in Malmö, Sweden, and they are active in the Swedish market. They have been active in the market since April 2016 and have four employees. DeviceRadio's business is to connect hardware with business software. Christian, who is the co-founder and CEO of DeviceRadio, has a background in industrial automation and he sees a lot of similarities between IoT and industrial automation. In a factory there can be thousands of sensors that measure and calculate different operations and this is something that Christian thinks IoT can do but on a much larger scale.

Christian saw a business opportunity within IoT because of its hype right now. He compares the IoT market to the mobile applications market when smartphones started to become common. Christian says that he sees great potential in the market but to be successful it requires great knowledge and expertise in the area. DeviceRadio is trying to use its experience within the industrial automation and connect this to its IoT hard- and software.

#### 4.1.1. IoT and marketing for DeviceRadio

Christian thinks that the future of the IoT industry looks very bright and says that the question is not if the market is going to boom but when. Christian says that he has noticed a fear from companies of missing out on this opportunity. Because of the hype of IoT, many companies want to be a part of it but do not really know how.

Christian says that the information gathered from IoT can be used in different ways and that companies see opportunities with connected devices. He gives an example of a chainsaw: if the chainsaw is connected, the company that sold the chainsaw is able to monitor the usage and thereby calculate when the chainsaw needs a service. In other words, the manufacturer of connected devices can monitor the entire lifespan of its products.

DeviceRadio market themselves mostly through their partners, they try to reach out to their partners' existing customers to explain the benefits of connected devices. This is confirmed by that DeviceRadio is a partner to IoTguiden.se which is a site that puts together companies and research to build relationships and share information. DeviceRadio does not market itself directly to the end consumer, instead it markets to companies that handle the contact with the end consumers. When searching the web for advertising of DeviceRadio we cannot find any advertising which verifies that they do not market themselves directly to the end consumer. Neither could we find that DeviceRadio remained dynamic in their online marketing. Christian says that the hardware their customers use is not really any new products but when they get connected they get a higher grade of functionality. DeviceRadio does not use any specific marketing campaigns right now and Christian says that many companies contact them for their services and products. A lot of attention is gained from word of mouth and

media articles. When searching the web we saw that DeviceRadio has for example been written about in 'Ny Teknik' in an article about DeviceRadio being accepted into Eon's incubator program. Christian is interviewed in the article and he mentions that it is important for DeviceRadio to take advantage of Eon's expertise and their customer base. According to Christian, DeviceRadio does not use mass-mail automation; instead they let their customers contact them for their expertise.

Christian believes that it is important for their marketing to be clear in the message that they communicate. This is because IoT is such a new concept and there is a lot of talk about it, but there is great confusion about what it really is. On their website (<https://www.deviceradio.com>) it is clearly and easily explained what their IoT products consist of. The media channels that DeviceRadio uses are partly websites like IoTguiden.se, IoTsweden.se and partly business articles that their target group reads. When searching for the web we could not find DeviceRadio mentioned or any advertising that could harm their brand image. Their target group is hard- and software companies that produce non-smart devices. Christian says that within the next few years a lot of pilot projects and research will be done so companies can figure out how to make money from IoT. He thinks that IoT may not be profitable at first for a company to invest in, but with the information gained from smart devices, the company will gain valuable information which can generate revenue. Working with IoT requires a wide range of different skills and expertise from developers. This is mentioned on their website: *"Working with IoT demands a wide range of different skills and expertise from developers. As a result, development is costly, requires a lot of time and products are prone to security breaches or malfunction"* (DeviceRadio, 2017).

DeviceRadio do measure their marketing outcome, mostly by tracking and following up their leads. Their target goal with their marketing is to have two projects up and running before the end of June 2017. Christian also says that DeviceRadio does not use moving pictures in its advertising because their focus is on client meetings. Therefore, they do not use any interactive online communication in their marketing. Christian thinks it feels unnecessary to spend money in this area because they are still a new and small company. Christian sees great potential with IoT and believes that it can change every existing market segment.

Christian thinks that the biggest and fastest growing market will be in developing countries; he states that developing countries have often skipped some technology steps and just started to use the latest and most advanced instead. He gives the example of an old-fashioned phone line which many developing countries have never used; instead they started to use mobile communication from the beginning. He also thinks that developing countries will start to use connected smart devices at a higher and faster rate in their industry than the western world will. He thinks this is because they need to have smart technology to be able to manage the fast growth they have in their production and economy. Christian says that the savings and efficiency will be approximately 10% higher in western countries but the impact will be much greater in developing countries.

## 4.2. Novotek AB

Novotek AB is a company based in Malmö and they are active in Scandinavia, the Netherlands and Belgium and had, according to allabolag.se, 120 employees in 2015. They have been active in the market for over 30 years. Novotek's business is in industrial IoT, also known as IIoT, which according to Jens is when devices in an industry get connected to each other and thereby can be controlled and monitored simultaneously. Their product allows their

customers within the manufacturing industry to be able to gather in data about their business and control their devices centrally. Jens is responsible for Novotek's product and business development which, according to him, means that he is accountable for all their new solutions and products. The data that is gathered from the IoT devices is, according to Jens, used to control and improve the production for the company using Novotek's products. Jens says that IoT is not really a new thing because Novotek has been working with this for the past few decades but at the same time he points out that the new updated technology has given their business and the market overall new possibilities.

#### 4.2.1. IoT and marketing for Novotek

Jens says that he has noticed an increase in interest and demand of IoT and their products. More customers have contacted Novotek since IoT become a major talking point. Customers have tended to show an increasing demand for Novotek's existing products that they have had available in the market for quite some time. The product that Novotek offers is almost the same as before but the increase in interest in IoT has resulted in greater demand for their solutions. Jens thinks that the customers have a greater awareness of IoT and the digitalization of the industry. He has noticed that the decision about IoT and digitalization has moved up from the operational decisions to the strategical decisions in a company. Jens believes that management and stakeholders have started to talk about digitalization and the benefits of using IoT to better control and monitor the entire business. He points out that this increase in interest is making the company invest more money in digitalization and IoT. At the same time he cannot say if the increase in money invested in digitalization and IoT is due to the increasing interest in this area or due to the current economic boom.

According to Jens, Novotek's marketing strategy is to reach out to their existing customers. Novotek tries to market itself by being searchable online and by doing search optimization on search engines. Due to Novotek's marketing budget, Jens says that it is too expensive for them to be search optimized on the new 'fashion words' within the industry, for example words like IoT and digitalization. Jens says that Novotek benefits from its partnerships with two large subcontractors, one of them General Electrics (GE), which is investing large sums in marketing in the IoT area. Novotek can thereby because of their partnership with GE gain from their marketing. When customers contact GE about IoT and want products that Novotek can offer, GE will send this customer to Novotek. When asked if there is any marketing campaign that Novotek has done that was extra effective, Jens answers no, not from Novotek but this partnership with GE has brought a lot of customers. He also claims that Novotek as a company is not equally well known and has too small marketing budget to reach out with its marketing in the same way as GE. Novotek does not have the economic power to launch a marketing campaign, instead it focuses its marketing on the specific customer segment and existing customers. Their marketing is dependent on their partners and therefore it is hard to be dynamic. Novotek uses media channels such as its website and it is also featured as a partner on [IoTguiden.se](http://IoTguiden.se) and [IoTsweden.se](http://IoTsweden.se). When searching the web we could not find any advertising from Novotek on websites that could harm their brand image.

Jens says that Novotek has an advantage in the market because they have been active in the market for over 30 years and this has given them great knowledge of IoT and how it can be used. This is also something that they market themselves with on their homepage (<https://www.novotek.com/sv/>). Because Novotek is working business to business with large industrial customers he cannot say that he has noticed any advantages or disadvantages of

online communication. He also points out that doing business with large industrial customers means big deals and thereby a close and intensive negotiation process.

Jens explain that because of Novotek's limited marketing resources they cannot market themselves to their entire segment and stress that they can solve their prospects problems. Instead Novotek focus on being easy to find when prospects stumble upon a problem. If a prospect customer is starting to search the web because of a problem they have, Novotek should be easy to find because they have search optimized the problems that they can solve. When searching the web we could find Novotek for some specific searches that included specific search words used on their homepage. However when searching for more general search words like 'IoT för företag' Novotek did not appear. According to Jens they let the customers contact Novotek instead of Novotek pushing out information to the prospect customers.

Jens states that they do not have any specific target group and that their customer base is wide. Their segment is the manufacturing industry and they have got some new business through of word of mouth. Their main focus is to do marketing through their website and being quoted in different business articles or magazines which can be confirmed when searching the web for Novotek. Novotek has been mentioned in for example Dagens Industri, Svenska Dagbladet, Affärsvärlden, NyTeknik etc. According to Jens, Novotek has not defined a goal with its marketing but they do measure the outcome from the different leads they get into their business. Jens cannot say that Novotek uses any moving pictures in its marketing.

### 4.3. Fujitsu Sweden

**2017-05-04**

Fujitsu is a global company with around 160 000 employees worldwide. Their Swedish office is based in Kista and they had, according to allabolag.se, 667 employees in Sweden in 2016. Fujitsu Sweden works mainly business to business with soft- and hardware solutions. Björn is Head of Marketing for the Swedish market and has a long background with communication and marketing. Björn has studied at Berghs school of communication and started to work at a PR bureau in the 90's. Around 2000 he started to work within the IT industry. In 2004 he moved on to become Communicator Manager at a company called Mandator that was later acquired by Fujitsu Sweden. Now he is Head of Marketing at Fujitsu Sweden.

#### 4.3.1. IoT and marketing for Fujitsu Sweden

Björn says that they have been talking about IoT solutions at Fujitsu Sweden for about five years. He says that five years ago, when talking about IoT, it was something that would be big in the future and that in the future everything would be connected. Björn says that now, five years later, it is starting to become reality and everything around us is becoming connected. He gives the example of connected cars that tell the car dealership when it is supposed to be serviced or cargo ships with containers where it is possible, in real time, to track where the shipments are located. Previously the customers only talked about IoT as something for the future but now Björn says that they are having concrete discussions with their customers about how IoT can be used to make their business more effective. He mentions that their customers are starting to feel stressed because they do not want to miss out on the opportunities that IoT and digitization bring and thereby fall behind their competitors. He says that many of their customers are scared to miss the IoT and

digitalization boom, but at the same time the customers do not really know what the boom is about. Björn says that many companies contact them with questions like ‘how can IoT reduce our costs’ or ‘how can we improve our services with IoT’.

Björn says that it is hard for him to see whether IoT could help Fujitsu Sweden with its marketing, but a lot of their customers, mainly in the retail industry, use IoT to improve their marketing. Björn gives the example of stores that can track how their customers move around in the store and thereby adjust their marketing and how they place their products according to these patterns. Björn considers IoT as a great tool for marketing purposes when working in the segment of business to consumer.

Fujitsu Sweden mainly market themselves at business fairs and conferences; in April, for example, they attended a big CEO conference in Stockholm. Fujitsu Sweden aim to attend business fairs that have themes in line with their business interests. When searching for this we found that they had a conference in Stockholm, ‘Fujitsu World Tour 2017’, with themes about digitization, co-creation and innovation in a hyperlinked world. Björns says that Fujitsu Sweden also does targeted online advertising to specific segments. Mainly to CEOs, management or CTOs. A clear example of how Fujitsu Sweden targets decision-makers is retrieved from their website and shown in figure 2.



Figure 2. “Example of advertising from Fujitsu Sweden”  
(Fujitsu, 2017 pp.1)

Fujitsu Sweden have also targeted marketing campaigns on a global scale, for example; one is digitalization and another one is cloud-based systems. One specific marketing campaign that Björn thinks has been effective is when they bought 10 sponsored articles about Fujitsu Sweden, digitalization and IoT in Svenska Dagbladet. It is confirmed on Svenska Dagbladet’s website that Fujitsu Sweden has bought sponsored articles, however, we could only find nine articles that have been sponsored by Fujitsu Sweden.

Björn says that they use marketing automation to specific targeted segments, for example they send emails to companies within their chosen segments and they also follow up on the response to these targeted emails. He explains that they are able to target specific geographic areas with online advertising through the use of IP addresses. For example, Björn says that if they want to target IT companies they can buy online advertising based on IP addresses located in Kista, Stockholm, where many IT companies are located. Instead of advertising to the entire area of Sweden and paying approximately one million SEK, they can focus on their targeted segment which is Kista and pay a tenth of that price. Fujitsu Sweden also does search optimization according to Björn and this is can be confirmed when searching for co-creation and digitization which they use often on their website. Björn sees opportunities in the fact that online communication has brought the customer and the company closer to each other because this has made it possible to adapt their marketing to their customers’ segments and interests. He points out one drawback and that is that the customer can feel that their privacy can be violated but at the same time he says that customers nowadays are starting to get used to more personalized marketing.

According to Björn it is important to have control over where your online advertising is being published. He gives an example of a big company that had published its advertising unintentionally on a website that sympathized with racist values. That gave this company bad publicity and harmed its brand image. No observations could be found of Fujitsu Sweden advertising on a site that could harm its brand image.

Björn says that their online communication is not interactive and says that within the Swedish business-to-business market most of the communication is one-way communication. However, globally Fujitsu is starting to experiment with interactive communication online. We observed Fujitsu Sweden's website and we found interactive communication; visitors to the website could be interactive and send messages direct to Fujitsu Sweden.

Something that Fujitsu Sweden think is important in their marketing of IoT and digitalization is co-creation. Because IoT and the digitalization process is such a new concept there is no finished template of how to implement this into an organization. Every case is different and therefore they have to co-create and work together with their customers for a tailor-made solution. Online we have noticed that Fujitsu Sweden communicate a lot about co-creation in the area of IoT and digitalization. For example, they have this as a theme for their conference 'Fujitsu World Tour 2017' and also in their online communication they talk about 'co-creation in the age of disruption', 'co-creation digital confidence' and 'the key for digital co-creation'.

Fujitsu Sweden's target group is the strategical part of large companies like CEOs, CFOs and management because they are the ones who take the decision to join a partnership. Björn says that they always measure the outcome of their marketing and gives the example that they got the information about how many, for how long and what article was the most read from their articles in Svenska Dagbladet. At fairs and conferences they measure the number of visitors, visitors that show an interest in their services and visitors who become customers.

Björn says that their main online marketing is focused on IT websites and business websites. They also market themselves at airports because of a lot of business people travel. Björn says that Fujitsu Sweden as a brand is associated with hardware because this was their main business in the 90s but nowadays this is just one third of their business. Their main business is in software solutions and services. As many customers associate Fujitsu Sweden with hardware, Björn says that it is important for them to reposition the brand on the market and that they do that by marketing a lot about digitalization and IoT which we have verified by searching their website. The goal of Fujitsu Sweden's marketing is to contribute to market growth together with the sales department. Björn says that they have defined their customers' interests through marketing research and developed their marketing strategies based on this, but this is done on an international scale. In their marketing they use moving pictures frequently, partly different client cases where they show how their solutions solved a problem and partly in more general brand commercials. This is often used at client meetings and fairs/conferences they attend.

## 5. Analysis

*In this paragraph, the result of the study is analyzed. Theory and empiry are tied together. Firstly, an within case analysis are presented, each interviewed company is analyzed individually and described on the basis of the theoretical reference framework. Thereafter, a cross-case analysis is presented, highlighting similarities and differences between business and marketing approaches.*

### 5.1. Within case analysis - DeviceRadio

#### **Online communication**

Gurău (2008) talks about different ways in wich the Internet has changed how the classical communication procedures are done. According to Gurău (2008) these different ways are what distinguishes internet marketing communication from traditional channels. Gurău (2008) mentions interactivity and says that marketers nowadays have multiple possibilities of interactive communication and that marketers are able to get direct interaction between the individual consumer and the software applications thanks to online communication. DeviceRadio do not use this in their online communication and according to Christian this is because the company is too small to have a budget for this. Also, their main target is to have a client meeting face-to-face with other businesses and therefore the interactivity happens there.

#### **Online strategies**

Sharma (2011) says that online marketing should always remain dynamic and just producing a campaign or advertisement or any other marketing campaign will not be enough in the near future. The marketing should be fresh, innovative and flexible based on the customer's taste and needs and the orientation of the market. DeviceRadio does not do much marketing on its own and therefore it is hard for them to be dynamic in their marketing. Christian sees great potential in the market but to be successful it requires great knowledge and expertise in the area. DeviceRadio are trying to use their experience within the industrial automation and connect this to their IoT hard- and software. Christian thinks that the future for IoT looks bright and he has noticed a fear from companies of missing out on the opportunities that IoT can bring. It is this fear that DeviceRadio has built their marketing on by being as concrete as possible about what their products can do and how they do it. The dynamic to be concrete and innovative can be clearly seen in DeviceRadio's website ([www.deviceradio.com](http://www.deviceradio.com)) which is based on their customers' confusion and the statement that 'we make IoT irrelevant'.

According to Sharma (2011), organizations should understand what their target is. If they aim for the wrong target it will create the wrong image of the brand, which could cause a decrease in sales and impact the overall image of the organization negatively. To be able to find the correct target segments you need to have good research (Sharma, 2011). This is something DeviceRadio has embraced and according to Christian their target is hard- and software companies that produce non-smart devices. Christian's background in industrial automation has filled the base for their market research because it is, according to Christian, a similar industry to the one DeviceRadio operates in. But it needs to take into account the fact that DeviceRadio does not market itself directly to the end consumer; instead it markets to companies that handle contact with end consumers. Sharma (2011) talks about the importance of using appropriate media channels and doing search optimization. DeviceRadio uses media channels that are relevant to their business and when searching the internet no

observations were found of DeviceRadio on sites that could harm their brand image. Christian does not mention that they do any search optimization and when searching for words relevant to their business we did not get any hits for DeviceRadio, which implies that no search optimization is being done.

Botan et al. (2004) say that companies use PR to create relationships for potential and current consumers. PR is closely related to transparency and WOM (Huang-Horowitz, 2015). If PR appears to be transparent and honest it will create credibility and confidence with the stakeholders. WOM is also related to credibility and confidence when creating awareness towards stakeholders (Huang-Horowitz, 2015). The best way to spread a beneficial rumour about an organisation is through WOM, where the rumour is passed on from one friend to another (Phillips et al., 2009); (Lipschultz, 2014). According to Christian, DeviceRadio has gained a lot of attention from WOM and media articles and been written about in the news media site that focuses on new technology (Ny Teknik).

Rimlinger (2011) explains pull-marketing in terms of the demand from consumers shaping the company's strategies. It is the consumer him/herself who asks for the information or product. Rimlinger (2011) says that it is easier for companies to attract their ideal customers because when using pull-marketing, as the customers see the company as an expert at solving their problems. DeviceRadio uses pull-marketing as a marketing strategy. Christian says that they do not use any mass-mail automation and that DeviceRadio does not use any specific marketing campaigns at the moment; instead they gain their customers through word of mouth and media articles where they have been mentioned. They focus on marketing through their partners and let the customers contact them for their expertise.

Gilan and Hammarberg (2016) agree with Sharma (2011) that content is one of the most crucial parts when creating a strategy. Gilan and Hammarberg (2016) develop the theory of content strategy and say that all marketing without a goal, purpose and strategy is meaningless and that this also includes content marketing. To win the communication war that is now ongoing on the market you need to have a strategy. The strategy you choose helps you to stay on course so you can reach your goals. DeviceRadio's goal with their marketing is to have two projects up and running before the end of June 2017. Gilan and Hammarberg (2016) talk about goals and say that it is important for a company to define a goal with the content that is created in the marketing and communication process.

Gilan and Hammarberg (2016) say that it is important to know who your company's public are that you produce content for. To produce good content, you need to know who you going to deliver it to. Christian believes that it is important for their marketing to be clear in the message that they communicate. This is because IoT is such a new concept and there is a lot of talk about it, but there is also a lot of confusion about what it really is. Gilan and Hammarberg (2016) say that good content comes from three given sources and they are: your customer's interests, your company's organisation and trademark, and your search terms.

Gilan and Hammarberg (2016) say that video and moving pictures are the best content to use and Gurău (2008) points out that marketers nowadays have other possibilities of interactive communication online. DeviceRadio does not use moving pictures in its marketing because the focus is on client meetings and according to Christian it is unnecessary to spend money on creating moving picture content for a small company in their branch. Their main focus is on client meetings and therefore they do not use any interactive online communication in their marketing.

## 5.2. Within case analysis - Novotek

### **Online communication**

Jens says that he has noticed an increase in interest in and demand for IoT and in Novotek's products. More customers have contacted Novotek since IoT became a major talking point. Customers have tended to show an increasing demand for Novotek's existing products that they have had available in the market for quite some time. Gurău (2008) points out that the 'online world' has brought new ways to communicate and Russell et al. (2013) say that the revolution of the internet has given us various social networks for customers to interact with each other and share information. Novotek mainly use their website in their online communication ([www.novotek.com](http://www.novotek.com)) where they describe their products and what solutions they can offer. On their website the customer can also contact Novotek directly through a 'contact us' button. Gurău (2008) says that the online world has given companies new possibilities to interact with their customers and says that some companies have embraced this and installed a 'contact us' button on their website to make it easier to get input from their customers.

### **Online strategies**

Gurău (2008) says that the online space has changed how the online consumer behaves. Marketers must adapt to the online consumer's new way of thinking. The ordinary channels that used to be efficient to communicate with are now old-fashioned (Gurău, 2008). With the internet, the consumer gets connected to the companies and the gap between the recipient and the company is gone. When PR appears to be transparent and honest it will gain credibility and confidence with the stakeholders (Huang-Horowitz, 2015).

Phillips et al. (2009) say that PR practitioners have come closer to their audience since the breakthrough of the internet. Nowicka (2012) continues the subject and says that the online space has positioned the audience coming to journalists and politicians to a greater extent than before. Gilan and Hammarberg (2016) stress that you should not use all online platforms on the web to market yourself and that you should choose with care the platforms you know your customers use and be a 'world champion' on those platforms. Since Novotek do business-to-business sales, their focus is to be quoted in different platforms that their customers use, like business articles and business magazines, as a part of their online communication strategy.

Sharma (2011) explains that there has been a tremendous development of data-intensive instruments that have been optimizing the search engine marketing market and that this is starting to eliminate the traditional form of marketing. Sharma (2011) calls this 'a new era - new demand-exclusive marketing strategy'. This is the marketing strategy that Novotek is focusing mostly on, according to Jens. They are trying to market themselves by being searchable online through search engine optimization. Novotek has search-optimized the problems that they can solve and when a potential customer has stumbled upon a problem and searched the web about that, Novotek's solution should be the one that the customer finds.

Another strategy that Novotek is using is pull-marketing. Pull-marketing, as mentioned before, is when the customer seeks information about the service or product without any active direct marketing from the company. Novotek does this by benefiting from its partnership with its subcontractors. Jens states an example with General Electric (GE), one of their partners. GE has a much larger marketing budget and is able to search-optimize 'more expensive' and more general IoT-connected words. When customers contact GE about IoT

and discuss problems concerning areas within Novotek's expertise, GE sends these customers to Novotek. To be seen as an expert by the consumers also makes the company seem more trustworthy and this trustworthiness will give the company a greater chance to be in the consumer's top of mind (Bowen, 2003; Sands, 2003). Sharma (2011) talks about the importance of using the right media vehicle when advertising online. If the company does not have control over that they risk being featured on websites that can be harmful to their brand image. We could not find any observations of advertising from Novotek on sites that could be harmful to their brand.

Another thing that Jens states has brought customers is when they have been quoted in different business articles and IT magazines. Being mentioned in the media has proven to be successful for Novotek's business. Huang-Horowitz (2015) describes how the correct use of PR will win credibility and confidence from potential customers. He states that PR is closely related to word of mouth and Phillips et al., (2009); Lipschultz, (2014) explain that one of the best ways to spread a beneficial rumour about an organisation is through word of mouth where the rumour is passed from one customer to another. Lipschultz (2014) says that when a message is delivered via a reliable source the information is perceived to be more truthful.

One of the steps that Gilan and Hammarberg (2016) point out as important for an online strategy is to 'choose your public'. It is important to know who the company is publishing its content for, understand their interests and how to get them engaged in the company's organisation and trademark. Jens says that their customer base is quite wide but they have pointed out their targeted segment as the manufacturing industry. Another step that Gilan and Hammarberg (2016) points out is to 'define your goal'; is it, for example, to strengthen your brand or to drive sales? The goal is supposed to be concrete and measurable. This is something that Jens says they do not have. He could not give any specific goals for Novotek's marketing but they do measure the outcome of their different leads. Moving pictures is also something that should be a vital part of the content strategy, according to Gilan and Hammarberg (2016). Video and moving pictures are the best content a company can have in their marketing in this digital revolution according to Gilan and Hammarberg (2016), but this is also something that Jens cannot say that Novotek is using in its marketing. They mostly focus on PR and search motor optimization in their marketing.

### 5.3. Within case analysis - Fujitsu Sweden

#### **Online communication**

According to Llorent et al., (2012); Gilan and Hammarberg (2016), everything around us is being integrated with technology and Fernández-Montes et al. (2014) state that nowadays everything is becoming digitalized. Björn says that Fujitsu Sweden started to talk about IoT solutions for about five years ago as something that will be used in the future but not until now has it become reality. More and more products within businesses are being connected according to Björn. He mentions that their customers are starting to feel stressed because they do not want to miss out on the opportunities that IoT and digitization bring and thereby fall behind their competitors. He says that many of their customers are scared to miss the IoT and digitalization boom, but at the same time the customers do not really know what the boom is about. According to Hamm (2015, December 15), business leaders will be able to understand more deeply what is happening in their organisation and how their customers behave. By implementing information from IoT into systems and processes, businesses will be able to streamline their work structure, improve customer satisfaction, discover new business opportunities and foresee risks and threats in their market (Hamm, 2015, December 15).

Previously customers only talked about IoT as something for the future but now Björn says that they are having concrete discussions with their customers about how IoT can be used to make their business more effective. Gurău (2008) points out that the online space has brought the customer and the company closer to each other and says that the traditional communication channel offered a one-way street to communicate for the company to the consumer. Companies had the resources to send information through a very wide channel but the recipient on the other hand had few options to communicate back to the companies (Gurău, 2008). Kansal (2014) states that the internet has transformed the consumer from a passive recipient of information into a more active user. Shankar et al. (2007) tell us that everybody is a communicator, and the company is now just a part of a big network. Björn sees opportunities in the fact that online communication has brought Fujitsu Sweden closer to their customers so they can adapt their marketing to their customers' segments and interests. However, Björn stresses the fact that this can be perceived as intrusive by their customers if they feel that their privacy is being violated.

### **Online strategies**

Sharma (2011) explains that there are numerous different online marketing strategies and that we are on the cusp of a new era of super globalization. Sharma (2011) says that content is one of the most crucial parts when creating a strategy and this is something that Gilan and Hammarberg (2016) agree with. Gilan and Hammarberg (2016) explain further and develops the theory of content strategy and say that all marketing without a goal, purpose and strategy is meaningless and that this also includes content marketing. To win the communication war that is now ongoing on the market you need to have a strategy. The strategy you choose helps you to stay on course so you can reach your goals. Fujitsu Sweden's marketing content for IoT is mainly created to inspire co-creation. Sharma (2011) says that online marketing should be dynamic at all times. According to Björn this is because IoT and the digitalization process are such new concepts and there is no finished template for how to implement this into an organization. Every case is different and therefore they have to co-create and work together with their customer for a tailor-made solution.

According to Sharma (2011) organizations should understand what their target is and explains that research is required to find the correct target segments. Fujitsu Sweden's target segments are large companies and their target group is the strategical part of large companies like CEOs, CFOs and management because they are the ones who take the decision to join a partnership. Fujitsu Sweden mainly market themselves at business fairs and conferences and aim to attend business fairs that have themes in line with their business interests. Gilan and Hammarberg (2016) say that there is tremendous power in marketing through e-mail. Through sending e-mail to your customers you will drive quality traffic that will generate income. Fujitsu Sweden use marketing automation to specific targeted segments, for example they send emails to companies within their chosen segments and they also follow up the response to these targeted emails. New technology has made it possible for Fujitsu Sweden to be able to target specific geographic areas with online advertising through the use of IP addresses. According to Björn this is cheaper and more effective for Fujitsu Sweden when marketing online. Sharma (2011) says that it is important to utilize an appropriate media vehicle because advertising on the wrong site can harm the brand image of the company. According to Björn, it is important to have control over where your online advertising is being published. He gives an example of a big company that had published its advertising unintentionally on a website that sympathized with racist values which gave this company bad publicity and harmed its brand image.

Björn says that it is important for them to reposition the brand on the market and they do that by marketing a lot about digitalization and IoT. The goal of Fujitsu Sweden's marketing is to contribute to market growth together with the sales department. Gilan and Hammarberg (2016) say that it is important to define what goals that should be achieved with the marketing content that is created. Gilan and Hammarberg (2016) say that good content comes from your customers' interests, your company's organisation and trademark and your search terms. Björn says that Fujitsu Sweden has defined its customers' interests through marketing research and developed its marketing strategies based on this. Gilan and Hammarberg (2016) stress the fact that companies should not use all online platforms on the web for marketing but instead only market on the platforms that their customers use.

Potential and current consumers are the main stakeholders that companies use PR to create relations with (Botan et al., 2004). According to Huang-Horowitz (2015), PR is closely related to transparency and word of mouth (WOM). Gurău (2008) says that online information is transparent because everything published online is available for everyone. Lipschultz (2014) says that when a message is delivered via a reliable source, the information is perceived to be more truthful. Nowicka (2012) says that when spreading a message rapidly and extensively along with creating trust and showing transparency it is important to capture the trends at the right moment, since what is trendy and hot today can be unpopular tomorrow (Nowicka, 2012). Fujitsu Sweden bought 10 sponsored articles in Svenska Dagbladet about digitalization and IoT which, according to Björn, was an effective marketing campaign. When doing online marketing Fujitsu Sweden always measure the outcome of their marketing and gives the example that they got the information about how many, for how long and what article was the most read from their articles in Svenska Dagbladet.

Gilan and Hammarberg (2016) explain that moving pictures are the best content and Gurău (2008) says that companies have gained a lot of possibilities for using interactive communication. Fujitsu Sweden uses moving pictures frequently, partly different client cases where they show how their solutions solved a problem and partly in more general brand commercials. This is often used at client meetings and fairs/conferences they attend.

Rimlinger (2011) explains that the goal of push-marketing is to create a desire and a need for the company's products in the customer's mind and that mass mailing, direct mail and in particular shared mail are good examples of push-marketing. Baines et al. (2013) define the push strategy as a marketing communication strategy that is used to communicate directly with end-user customers, whether consumers or other organizations within a business-to-business context. Mosley-Matchett (1997) says that push-marketing requires less resources in the form of financing and effort in time but it has a disadvantage because customers can perceive it as spam. Fujitsu Sweden uses push-marketing as part of its marketing strategy. According to Björn, they send out mail to their prospect customers and they also market themselves directly by pushing out advertising content to their targeted customers. Björn mentions that Fujitsu Sweden pushes targeted mail to their targeted segments which, according to Björn, is a cheap way to communicate their messages. When the customer him/herself requests the information or product this is called pull-marketing. In this strategy it is the demand from the customer that shapes the company's strategy (Rimlinger, 2011). When pull-marketing is used, the customers see the pull-marketers as experts at solving their problems (Rimlinger, 2011) and this makes the company seem more credible which enhances the chance to be in the customer's top-of-mind (Bowen, 2003; Sands, 2003). This is something that Fujitsu Sweden also do, for example they arrange the Fujitsu World Tour 2017 where experts lecture about subjects that are within Fujitsu

Sweden’s business areas. To seem more credible they buy articles in business magazines that real journalists write, which according to Phillips et al. (2009); Lipschultz (2014) is perceived as more reliable and truthful than if the message comes directly from a company's ad, for example.

#### 5.4. Cross-case analysis

**Table 1 - Cross case table for ‘Online Communication and PR’ (created by the authors)**

Online Communication and PR	DeviceRadio	Novotek	Fujitsu Sweden
Interactivity	Yes	Yes	Yes
PR	Yes	Yes	Yes
Purchased PR	No	No	Yes
WOM	Yes	Yes	No

With interactivity the company is able to get direct interaction between the individual consumer and software applications and this is something that all three companies use in their online communication. For example DeviceRadio has a ‘contact us’ button on their website where potential customers are able to ask questions directly to the company. All three companies mention that PR is a strategy that is beneficial for their marketing. Only one company, Fujitsu Sweden, has used purchased PR. Purchased PR in this research is when a company pays a journal to let their journalists write articles about their company and their products. One of the best ways to spread a beneficial rumour about an organisation is through WOM where the rumour is passed on from one friend to another. Only two of our three companies mention WOM as something that has been profitable for their business during our interviews.

**Table 2 - Cross case table for ‘Next Generation Strategies’ (created by the authors)**

Next Generation Strategies	DeviceRadio	Novotek	Fujitsu Sweden
Be Dynamic	No	No	Yes
Proactive "T" Strategy	Yes	No	Yes
Selecting correct path	Yes	Yes	Yes
Right Direction	No	Yes	Yes

Online marketing should remain dynamic which means that a company's marketing should be fresh, innovative and based on customers’ tastes, needs and orientation of the market. Only Fujitsu Sweden has defined its customers’ interests through a thorough marketing research and developed its marketing strategies based on this. It is important to have a defined target; not having this or aiming for the wrong target can cause a decrease in sales and impact the overall image of the organization negatively. Two of the three companies have defined their target, DeviceRadio has targeted hard- and software companies that produce non-smart devices. Jens at Novotek was unable to define their target and Fujitsu Sweden targeted the

strategical part of large companies like CEOs, CFOs and management as can be seen in figure 2. When marketing online it is important to utilize an appropriate media vehicle because placing adverts on the wrong sites can harm the brand image of a company. All of the companies that we have observed have control over their online advertising. When doing an investigation online; we could not find any advertising placed on sites that could harm their brand image.

When using a search engine, social media site or a relational media site, it is very important that the visitor is directed in the right direction. The link used must be appropriate and should lead the customer to the product that is being advertised. Both Novotek and Fujitsu Sweden use search motor optimization and can thereby control their advertising and what words they will be associated with. DeviceRadio on the other hand does not mention that they use this strategy and we could not find this strategy being used in our observations.

**Table 3 - Cross case table for ‘Push & Pull Strategy’ (created by the authors)**

<b>Push &amp; Pull Strategy</b>			
	<b>DeviceRadio</b>	<b>Novotek</b>	<b>Fujitsu Sweden</b>
Pull Marketing	Yes	Yes	Yes
Push Marketing	No	No	Yes

Pull-marketing means that the consumer him/herself requests the information or product. In this strategy, it is the demand from the consumers that shapes the company's strategies. In this strategy it is easier for the companies to attract their ideal customers because the consumers sees the pull-marketers as experts at solving their problems. To be seen as an expert by the consumers also makes the company seem more credible and this credibility gives the companies a greater chance to be in the consumer's top-of-mind. In all cases pull-marketing was used; DeviceRadio focused on marketing through their partners and let the customers contact them for their expertise and Novotek also takes advantage of their partnership, mainly from GE. When GE customers ask questions about IoT solutions, GE mentions Novotek as a reliable company within that business area. Fujitsu Sweden also uses pull-marketing, for example they arrange the Fujitsu World Tour 2017 where experts lecture about subjects that are within Fujitsu Sweden’s business areas and teach the attendees about IoT and digitalization.

Push-marketing means that companies send out advertising without the consumer asking for it. The goal of this strategy is to create a desire and a need for the company’s products in the customer’s mind. Mass mailing direct mail and in particular shared mail is a good example of push marketing. It is only Fujitsu Sweden that use push-marketing as part of their marketing strategy. Fujitsu Sweden send out mail to their prospective customers and they also market themselves directly by pushing out advertising content to their targeted customers. Björn mentions that Fujitsu Sweden push targeted mail to their targeted segments which, according to Björn, is a relatively cheap way to communicate their messages.

**Table 4 - Cross case table for ‘Content Marketing Strategy’ (created by the authors)**

<b>Content Marketing Strategy</b>			
	<b>DeviceRadio</b>	<b>Novotek</b>	<b>Fujitsu Sweden</b>
Define your goals	Yes	No	Yes
Choose your public	No	No	Yes
Let your goals define your content	No	Yes	Yes
Video/moving pictures are the best content	No	No	Yes
E-mail	No	No	Yes

It is important to determine what the company wants to achieve with its marketing. Is it to strengthen your brand or to drive sales? Novotek could not point out their marketing goals whereas both Fujitsu Sweden and DeviceRadio had clear marketing goals. To be able to produce relevant marketing content, a company needs to know its customers’ interests. Of the three companies, only Fujitsu Sweden based their content on their customers’ interests. They defined their customers’ interests by carrying out a thorough marketing research to understand what their potential customers were interested in right now.

With ‘Let your goals define your content’, we have investigated what platforms our case companies use. A company should not use all online platforms on the web for marketing. Instead they should choose the platforms that their customers use and invest their resources in only these platforms. Novotek mostly focus on their website and search optimization and all of their online marketing is channelled through these platforms. Fujitsu Sweden uses these platforms as well and in addition to this also e-mail marketing. DeviceRadio on the other hand do not use any online platforms to market themselves.

A vital part of the content strategy is video and moving pictures, which are the best content to use if you want to stand out against the competition. Fujitsu Sweden was the only company that was able to state that they used video and moving pictures in their marketing. This was mainly at their customer meetings where they could show videos about their solutions. Neither Novotek or DeviceRadio use moving pictures as part of their content strategy; Christian at DeviceRadio explains that it is unnecessary to spend money on creating moving picture content for a small company in their branch.

By sending e-mail to customers a company will drive quality traffic that will generate income. Only Fujitsu Sweden uses mass mail as a tool for communicating content. Björn mentions that Fujitsu Sweden push targeted mail to their targeted segments which, according to Björn, is a cheap way to communicate their messages.

## 6. Conclusion

*In this chapter the most important conclusions from the analysis are presented, as well as the theoretical contributions and practical implications of the study. We also provide suggestions for topics that may be interesting for research further.*

### 6.1. Conclusion

The purpose of this study is to: *investigate how Swedish IoT companies use online marketing strategies and online communication to reach out to their prospects and customers.* A research question is formulated in order to fulfil the purpose of the thesis. This study has examined how IoT companies market and communicate online. DeviceRadio, Novotek and Fujitsu Sweden are analyzed separately as within case studies. When analyzing the differences and similarities between the companies, a cross-case analysis was carried out.

The research question is: *How do IoT companies use online marketing strategies?* To be able to answer this we chose to use both general strategies like ‘push- and pull-marketing’ but also new strategies and guidelines for online marketing like ‘next generation strategies’. The analysis shows that there are differences and similarities in how IoT companies use online marketing strategies.

Both in our primary and secondary data we have noticed an increasing interest in IoT and the possibilities it brings. All of our data indicates that the IoT industry will grow in the coming years and the people interviewed spoke hopefully about the industry. The respondents work in the industry and therefore their opinions may be biased. However, since our theory fits in with our empirical data, our conclusion is that the IoT industry has a bright future and that the companies active in this industry will have to compete for market shares when IoT becomes generally common. When the potential of IoT becomes generally accepted and applicable, we believe that companies within the industry must have a clear and developed marketing strategy.

Fujitsu Sweden, the largest company, used most of the online strategies that were investigated. If this is a coincidence or if larger companies use more marketing strategies than smaller companies cannot be generally proven. Nevertheless, both of the smaller companies investigated mentioned that they gained from the increasing interest in IoT and from the marketing campaigns that the larger companies launched. We saw that the smaller companies took advantage of the larger companies’ marketing on IoT and this could be a reason why the smaller companies used fewer marketing strategies. Another reason for this phenomenon could be that the smaller companies felt that they did not have the marketing budget to do marketing that would have an impact on their business. Instead, they used their partnerships with larger companies to reach out. We also saw that the smaller companies are niched to specific products and segments while the larger company, Fujitsu Sweden, had IoT solutions that were more general to all segments and could be customized for each customer’s needs regardless of what industry or segment the customer was active in. Our conclusion from this is that being a larger company and active in different segments requires a more sophisticated online marketing strategy.

A marketing strategy that was used by all three companies was PR; according to the companies this type of marketing was effective. When doing this research, PR was not a strategy that we were supposed to investigate, but after our interviews we were surprised that

all three companies mentioned PR as such a vital part of their marketing. In today's society, where marketing is becoming more aggressive, customers have learned to filter out the media noise. This makes PR a good alternative because this type of marketing seems more credible. Fujitsu took this one step further and used purchased PR, which not only marketed their brand but also explained the possibilities of IoT. Novotek and DeviceRadio mentioned PR as a inexpensive way to reach out and Fujitsu Sweden mentioned PR as an effective and trustworthy marketing strategy to use. Our conclusion of this is that PR can be a great way for IoT companies to reach and at the same it is a great channel for explaining the possibilities of IoT.

Something that our empirical data showed was that many of our researched companies' customers thought that IoT was hard to understand. The customer often contacted the companies for information and expertise about what IoT could do for their business. An example of this is given by Björn at Fujitsu Sweden who says that their customers are starting to feel stressed because they do not want to miss out on the opportunities that IoT and digitization bring and thereby fall behind their competitors. He says that many of their customers are scared to miss the IoT and digitalization boom, but at the same time the customers do not really know what the boom is about. Christian at DeviceRadio says that IoT is such a new concept and there is a lot of talk about it, but there is a lot of confusion about what it really is. We believe that because IoT is such a new and hyped term, many customers do not want to miss out on the possibilities that IoT brings and want to know more about the area. Customers will research IoT and investigate companies active in the industry. Our conclusion is to use the pull strategy and thereby become an expert and a credible source of information from the consumer's perspective. For such an unexplored area, being a information source for the customer gives the company the possibility to educate the consumer about the benefits and possibilities of IoT. However, we believe that when the market has matured, companies within this industry need to start using the push strategy to gain market shares. We believe that when IoT becomes more well-known there will be more companies entering this industry, which will lead to greater competition in the market. The push strategy could then be a good strategy for the companies to use for reaching out to their targeted customers.

The implications of this case study has revealed similarities and differences in how IoT companies use online marketing strategies. The following conclusions were drawn:

- The research indicates that the IoT industry will grow substantially in the near future.
- PR is a common and effective strategy used by IoT companies.
- Pull-marketing is a strategy used by all companies investigated in this study.
- Push-marketing is only used by the largest company in this study.
- Size matters. The size of the company has a direct impact on how online marketing strategies are used.

## 6.2. Recommendations

### **DeviceRadio**

The main online platform used by DeviceRadio is their website. The website is clear and explanatory but since IoT is a diffuse term we believe that the website needs to be more developed and explain more about the possibilities of the products. We also think that a good way to market on their website could be to use moving pictures and videos. Another way to get more publicity is to purchase PR which would generate more search hits on the web and also make DevieRadio appear more often on platforms that their targeted group is active on.

### **Novotek**

Novotek needs to determine a target with their marketing. It is important to have a defined target; not having this or aiming for the wrong target can cause a decrease in sales and impact the overall image of the organization negatively. They also need to define a goal with their marketing. Is it to strengthen their brand value or increase sales? The goal should be concrete and measurable.

### **Fujitsu Sweden**

It seems like Fujitsu Sweden follow most of the strategies investigated in this research, however we would recommend further developing the search optimization. When searching for more general words like 'IoT Sverige' or 'IoT lösningar företag' Fujitsu does not appear. They should also continue to reposition themselves on the market as a software company. Some customers still perceive them as a hardware company even though that is not their main objective anymore.

## 6.3. Limitations

The results of this study cannot be generalized due to its qualitative nature. Since the results are based on three cases, the results cannot be generalized for the entire IoT industry in Sweden. A multiple case study of more than three cases would create higher validity and the results would be more generalizable. A quantitative study in this subject would enable greater generalization of the results. These results are limited and cannot be generalized to companies in other countries. However, companies outside of Sweden can use these results but they may not be applicable without being adapted to the country and the company's situation.

## 6.4. Further research

Suggestion for future research is to conduct a quantitative study of how IoT companies in Sweden use online marketing strategies. A quantitative study will increase the validity of the results and enable the researcher to generalize the results to IoT companies in Sweden. An additional suggestion is to examine how IoT companies outside of Sweden use online marketing strategies and at the same time examine whether there are similarities and differences. A third suggestion for further research is to examine which online marketing strategies are the most effective for IoT companies in Sweden.

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# Appendix – Interview Guide

## Introduction

About the company: operations, employees, background, the industry.

- What background do you have in the area of IoT?
- How long has your company been active in the market?
- What do you think about the IoT market in general?
- What do you think about the future of IoT?

## General Strategies

- How do you work with marketing?
- Is there any marketing campaign that has proven to give good results?
- What benefits/disadvantages do you believe IoT can give your company's marketing?

## Online communication

- Online marketing has brought the consumer and the company closer to each other in the means of communication.
- Do you see any benefits or drawbacks with this for your company?
- Do you use interactive communication with your customers?

## Online strategies

- What is important for your marketing?
- Who is your target group?
- Do you know your target group's interests?
- Do you measure the outcome of your marketing? And if you do, how do you do it?
- What channels do you use for marketing? (Websites, TV, radio, newspaper, e-mail etc.)
- How do you approach your customers?
- Do your customers often come to you for your expertise?
- Do you use mass mail for advertising?
- Have you defined a goal for your marketing? And if so, what is it?
- Have you defined your customers' interests so that they reflect your brand?
- Do you use moving pictures/videos in your marketing?

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