

# Evaluating the perception of SaaS adoption criteria with email permission-based marketing

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# Evaluating the perception of SaaS adoption criteria with email permission-based marketing

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## Abstract

This study aims to identify the main Software as a Service (SaaS) adoption criteria and apply them in permission-based email marketing campaign. Cloud computing and SaaS in precise is becoming a temping business sector for companies. While most of the attention is focus on the technological aspect, the business and marketing sides were less studied. The thesis present an empirical case study to investigate how respondents of small and medium enterprises' (SME), respond to different kind of stimulus from potential service providers, focusing on four distinctive adoption categories.

The thesis is empirical and exploratory in nature. In the beginning, cloud computing and SaaS are reviewed to form the background of the study. Afterwards, special attention is dedicated to identifying and grouping the crucial SaaS adoption factors. The Technological-Organization-Environmental (TOE) and Diffusion of Innovations (DOI) frameworks had been used in the process of grouping the adoption factors into four categories. The second part of the literature review is dedicated to permission-based email marketing, examining the positive and negative sides and following how marketing has evolved and let to the adoption of permission-based email marketing. Quantitative data was gathered from a case company which is about to release new SaaS product and which wanted to study the perception of its potential clients towards the four SaaS adoption categories.

The findings of the empirical part of this study are separated in four parts. Each part is dedicated to one of the four distinct adoption categories: Usability, Complexity, Security and Price. Usability and Complexity were the best perceived adoption categories while Security and Price didn't attract as much attention as initially anticipated. As a conclusion the study managed to shed some insight about how the SaaS adoption categories are perceived from SME's. The results can't be classified as expected or as absolutely innovative, since two of the categories behaved as it was expected while the other two - Complexity and Security showed some surprising results.

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**Keywords** Software as a s Service, SaaS, cloud computing, email marketing, permission-based marketing, adoption criteria, adoption process

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# 1. Introduction

## 1.1 Background and scope of the study

We are living in a fully digitalized era. Information Technology has become a permanent part of our personal and business life. It is impossible to imagine living without technologies and more precisely without one of the biggest achievement in human life which is internet. The internet has already re-shaped our business eco-system, but it has not stopped. We have seen phenomenon as web 2.0, social media and the most recent game changer that happened less than a decade ago and it can be simply summarized in the phrase “cloud computing”.

In the last years cloud computing has become increasingly popular and widely applied in and outside of the IT industry. In simple words, cloud computing has made high demandable, computing, software services more affordable, easier to purchase and rarely with any long-term commitments. Before cloud computing, complicated software services were available mainly to big companies, simply because one must make a huge initial investment, long term commitment and still maintain relatively high operational costs.

But what is cloud computing. There isn't a unified agreement on exact definition of cloud computing. Marston and Li in 2011 have defined cloud computing as follows *“It is an information technology service model where computing services (both hardware and software) are delivered on-demand independent of device and location. The resources required to provide the requisite quality-of-service levels are shared, dynamically scalable, rapidly provisioned, virtualized and released with minimal service provider interaction. Users pay for the service as an operating expense without incurring any significant initial capital expenditure, with the cloud services employing a metering system that divides the computing resource in appropriate blocks.”*

Business predictions from different sources justify that there is huge potential in cloud computing services. Public cloud market forecast for 2015 is \$80Billion and it is expected to grow over \$110 Billion by 2019 (Routers, 2015). The potential of cloud computing is obvious and it is pointed as one of the new technologies that will have a huge influence on the business environment in the next two decades (Buyya, 2011).



It is important to point out in this early stage that cloud computing is a generalized term and it consists of three major categories: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). The most adopted one of the three is SaaS and therefore it will be the focus of this research.

A case study about the marketing strategy for launching a SaaS product will be beneficial for all small and medium enterprises (SME), which are struggling in marketing their services. One of the biggest advantages of SaaS – its open contracts (monthly subscription, with no initial investments requirements), is at the same time the biggest obstacle for small companies. The reason for that is the instable cash flow, due to uneven customer lifecycle and reducing lifetime value.

SaaS is attractive because it allows companies to minimize, if not totally remove, the initial investment in the software service. In comparison the in house software services, which were commonly used before the emerging of SaaS, they required a huge initial investment and long lasting contracts. Most of the companies had so spare their scarce resources on initial investment and ended up using far below the capacity of the software. But with SaaS entering the market the business has shifted.

We can assume that SaaS is much more attractive to SME than to large companies. Therefore we can accept that most of the SaaS customers are price sensitive, yet focusing entirely on the price will result in “price war”, from which none of the providing companies will benefit. It is important to identify and group the SaaS adoption factors, so that marketers can have a more precise idea on which aspect to focus depending on their strategy and customer target.

The topic is interesting and important, yet it is difficult to generalize when it comes to success to communication strategy due to the high specification of customers’ preferences, product details and media limitation, especially in B2B environment. Therefore a case study will be more suitable for analyzing the marketing strategy and eventually the results might be applicable to similar businesses engaged in SaaS business ecosystem.

Email marketing –email is one of most widely used marketing environments. It enables companies to reach with a direct message much more respondents than other traditional media. Email marketing is a cost effective marketing tool and it has a high response rate. It is important

to point that permission email marketing is different from traditional direct marketing, which might result in unsolicited emails, also known as Spam. In this work email marketing refers to sending emails with customer's consent.

## **1.2 Research problem and questions**

The main purpose of the research is to identify what will be the best market entry strategy for a SaaS product on the market. The study will be conducted from the scope of the SaaS specification and adoption criteria. Email environment will be used as a main communication medium.

RQ1: Which are the key factors for SaaS adoption?

RQ2: How can the adoption factors be grouped into several categories?

RQ3: What will be the best email marketing strategy to promote them to email subscribers?

## **1.3 Outline of the research**

The main purpose of the study is to create a framework that SaaS providers can use when introducing new services to the market. The main focus will be to help them choose on which adoption criteria to use and how to attract customers with a targeted email marketing campaign.

The literature review will familiarize the readers with the specifics of cloud computing environment and more precisely with SaaS. Afterwards, the main aspect of permission email marketing will be presented as a suitable channel for promoting SaaS capabilities.

The research approach of this study is a single case study of young IT company which is developing its first SaaS project. The data for the research is collected through one email marketing campaign, which was conducted on four stages. The focus will be comparing how companies, which participated in the email campaigns, reacted on different SaaS adoption criterion presented in each stage of the email campaign.

## 2. Literature review

### 2.1 Software as a Service

#### 2.1.1 Overview of Cloud computing

##### 2.1.1 Definitions

Cloud computing is a new business model that is still developing and there isn't a unified agreement on how to define this phenomenon. Many scholars have given their best efforts to summarize the complexity of cloud computing. This is because most of the researches are based on case studies. Still some definitions are better accepted than others and the author has selected the following ones.

Vaquero (2009) elaborated the following broad definition of cloud computing “*clouds are a large pool of easily usable and accessible virtualized resources (such as hardware, development platforms and/or services). These resources can be dynamically reconfigured to adjust to a variable load (scale), allowing also for an optimum resource utilization. This pool of resources is typically exploited by a pay-per-use model in which guarantees are offered by the Infrastructure Provider by means of customized Service Level Agreements*”.

Mell & Grance (2009) have formed the following fundamental understanding of cloud computing “*A model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g. networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction*”. Few years later in 2011 Marston & Li used this definition as a base and extended it by addressing the financial relieve that cloud computing customers experience when using this kind of services.

The main concept is offering computing, storage and software services “as a service”.

### 2.1.2 Cloud computing concept

In many cases in the scientific communities we can observe that cloud computing is regarded as a utility. It is not uncommon to compare cloud computing with electricity. The reason for that is because the change that we see now in IT technologies is similar to the change that companies experienced few centuries ago when they shifted from in house electricity production to electrical grid. The comparison is understandable because in both events we change from in house expensive production to outsourced service that doesn't require any initial investment and it uses pay-as-you-go payment model. (Buyya, 2011)

Cloud computing deployment methods – the literature identifies three main types of cloud deployment methods – Public, Private and Hybrid. Yet Mell&Grance (2011) identified one more type and that is “community cloud”.

**Private cloud** – In this method, only one company owns the cloud infrastructure and it cannot be accessed from the public. Important specification is that the owner must make substantial initial investment. Despite that fact, private clouds are not uncommon. The reason for that is the high level of data security that private clouds can maintain. One of the biggest concerns of cloud service users is security and private clouds are the most secure method. A third party still can manage private cloud and it can exist on or off premise.

**Public cloud** – this is the opposite of the private cloud. Public cloud usage is not limited, everyone has access to it. This infrastructure can give high economy of scale, yet it is the least secure one. Public cloud services are commonly used as storage services. Typical examples for such kind of services are Google Drive and DropBox. It offers the basic service for free and paid premium services.

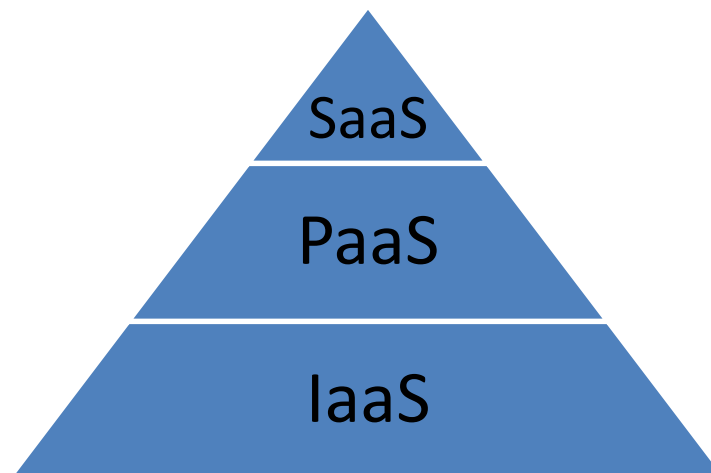
**Hybrid clouds** – Hybrid clouds are a combination between private and public infrastructures that are bound together by standardized technology. For example, a company might use a public cloud for everyday data and privately owned cloud for the more security sensitive information.

**Community cloud** - this is the newest type of cloud computing. It represents a multi-tenant infrastructure that is shared between several organizations with similar interest and

common computing concerns. It can be managed by a third party or internally and it can be hosted both externally and internally. This last type of cloud computing gives the benefits of a public cloud to selected group of clients but with higher security and privacy compared to the public cloud. The negative side is that the scalability of the public cloud is not utilized and the costs for the participating companies are relatively high.

### 2.1.3 Cloud computing service models

Cloud computing applies service driven business model. It offers reusable hardware and software resources through a vendor's network. These capabilities are known as "as a Service". In the theory exist several "as a Service" models but only the main three will be described here, and they are Software as a Service, Platform as a Service, and Infrastructure as a Service. (Mell&Grence 2011).



*Figure 1. Cloud Computing Service Model Source: "Cloud Computing Principles and Paradigms"Buyya 2011*

**Software as a Service (SaaS)** –SaaS offers an application to customers that is delivered over the internet and it can be accessed from various devices. The service user is not responsible for managing or maintaining the software. It is delivered as a standardized service with low level of

customization. This service can offer a wide range of application. This model is the most common of the three.

**Platform as a Service (PaaS)**—this service model provides all the needed resources and requirements for building applications and/or a service directly from the internet without the need of any software(Vaquero 2010). The client is responsible for installing and managing deployment applications. The service provider remains in control over the infrastructure, operating system and the enabling software (Sosinski 2011).

**Infrastructure as a Service (IaaS)**—This is the most basic type of cloud computing service model. The cloud provider remains in control of the infrastructure and the client is responsible for all other aspects of deployment. It provides virtual machines, storage, infrastructure or other hardware assets that clients can provide.

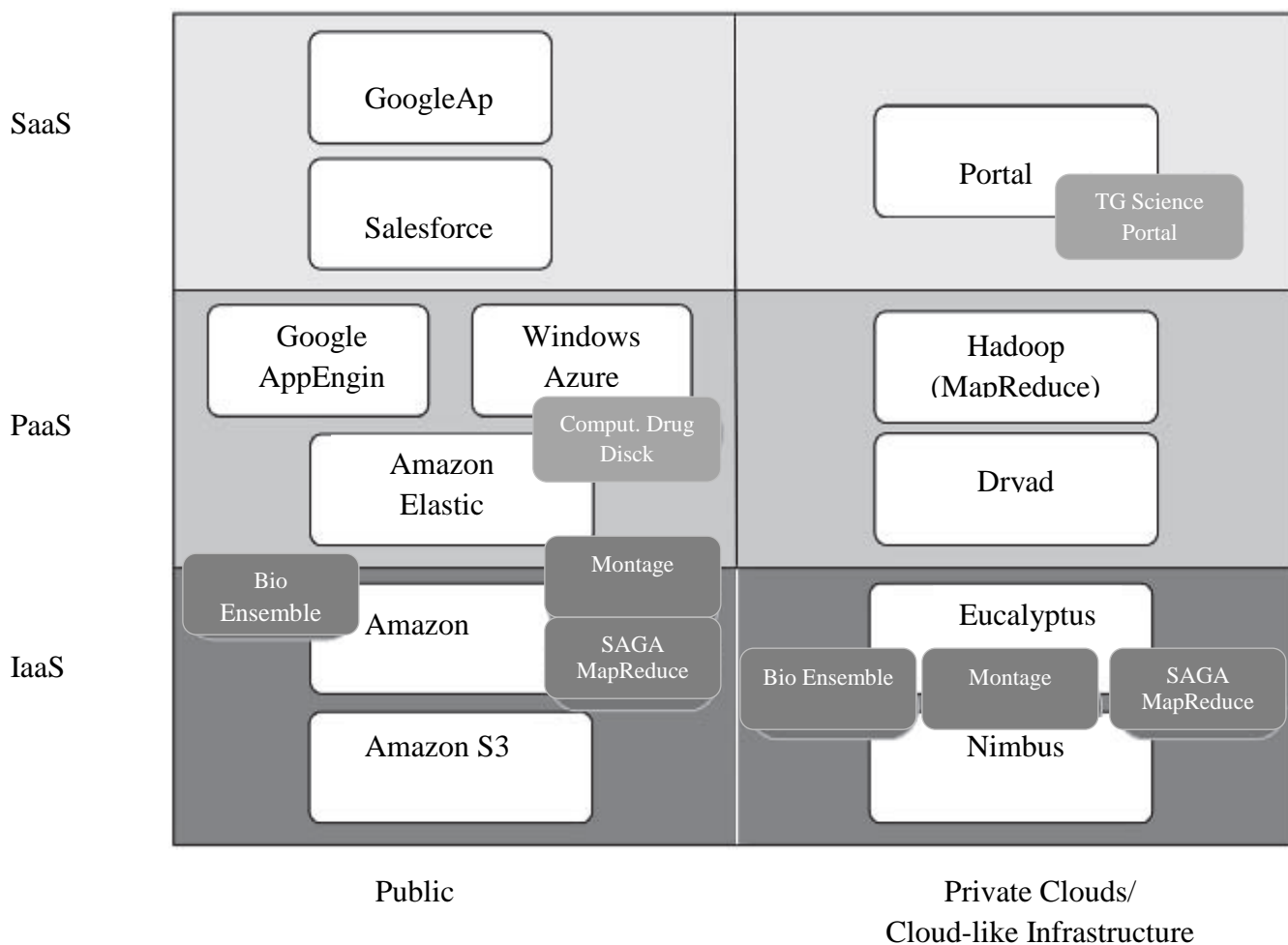


Figure 2. Cloud Computing Architecture, Source “Cloud Computing principles and examples” byyya 2011

## 2.1.2 Overview of SaaS

SaaS is the most completed service delivery model of all. This is due to the fact that the hardware, software and the application are provided as a complete service offering to the customer. The service can be accessed from different locations around the world and in most cases the only requirement is an internet browser (Sosinski 2011).

SaaS is perceived as an alternative to in-house based software solutions. One of the main reasons for the popularity of the service is that it offers applications that were not available before or if they were available, they were in-house solutions that required high initial investments. In other words – thanks to SaaS, software applications are more accessible and less expensive. It is not wrong to assume that SME are the main users of SaaS services. The on demand service enables vendors deliver the software service on a subscription basis, and thus allows different pricing models and customers to pay on subscription or volume usage.

As mentioned before SaaS is the most popular cloud computing service model (Tyrväinen&Selin 2011). Evidence for the popularity of SaaS can be easily obtained from the current market situation and the forecast.

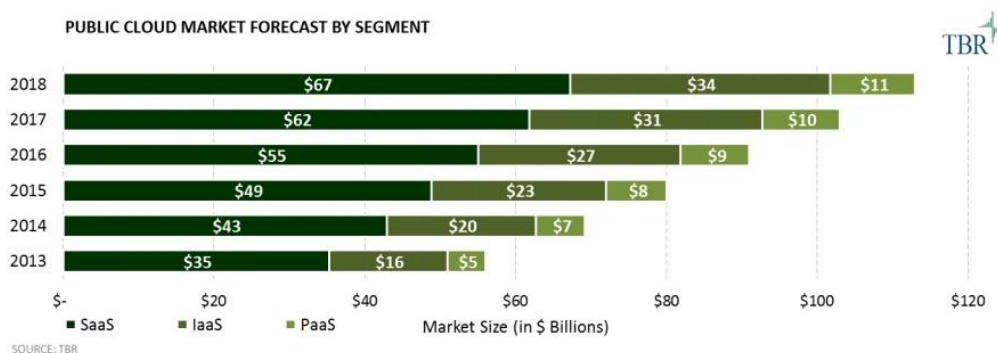


Figure 3. Cloud Computing Market ForecastSource: Forbes.com 2015

As seen from Figure 3, SaaS market share is bigger than the shares of IaaS and PaaS. The forecast is that in the upcoming two years the whole cloud computing business will grow with 50%. The forecast is that the growth of SaaS is slowing down, but still in near future SaaS will be the dominant service model. This table alone is sufficient to represent the supremacy of SaaS and why there is such an interest toward this topic from the academic and business community. Yet, it will be naïve to believe that SaaS is such a flawless service model, therefore the positive and negative aspects of SaaS should be examined.

It will be easier to present SaaS as a software solution when it is compared with the alternative, which is in-house software. The reason why we compare SaaS with in-house computing is that companies are switching from in-house to cloud based services. (Buyya, 2011). Many companies that specialized in offering in-house software solutions believed that they can compete with SaaS providers by simply introducing a SaaS version of already existing products. But this solution is not sufficient, because SaaS and in-house both have their advantages and shortcomings and on the base of specifications like licensing, information ownership, data protection, payment methods, etc. it is important for a company to know all those details before choosing SaaS or in house computing solution.

### **2.1.3 Specification and limitations of SaaS**

The literature has identified many different advantages that companies can get from using SaaS. Still there isn't a unified theory. One reason for that might be the fact that SaaS offers advantages that are similar to the other two cloud computing delivery models IaaS and PaaS. Such factors are the lower initial cost, availability over the internet and multi-tenancy model. In addition there are some characteristics that are related only with SaaS like higher economy of scale, number of developers, and high degree of control from the vendor over the service, highly standardized products and strategic benefit for the customer. SaaS cannot be visualized outside of the cloud computing paradigm. For that reason the main benefits and flaws of SaaS will be described, even if some of the characteristic are valid for other cloud computing service models and not only for SaaS.



An initially perceived benefit is the faster deployment time, compared to other in-house software. With SaaS companies are able to start using the computing service immediately after purchasing it and that was not the case before the emergence of cloud computing. A process of deploying new software and integrating it might take sufficient amount of time. Reducing the time to value from several months to just few hours should yield sufficient flexibility, faster deployment and reaching the core benefit of using the service. (Velte, 2011)

With the current state of the market most of the companies are trying to reduce their costs. Software solutions have been a substantial part of companies' budget and what SaaS has to offer is a similar services but with minimized or non-existing initial cost. SaaS applications have a much lower initial cost due to the scale of demand, standardization of the service and low reproduction cost. It is important to add that the licensing and distribution costs are accounted by the vendor, in most of the cases. Therefore the user of SaaS is limited to paying monthly or subscription fee plus the cost for access to internet, which in most cases is already part of the operational cost of any company. (Sosinsky 2011)

One of the most beneficial qualities of SaaS (and all cloud computing service models), is the fact that the service is on-demand. This enables vendors to offer their services on time based subscription of pay-per-use. From this benefit both parties. Customers on one hand pay less for and on the other hand, are not bound to long term contracts, in the majority of cases. The benefits for the vendors are access to customers all over the world and they can benefit from the economy on scale. Before SaaS companies had to make huge initial invest and commit to a long term contract with high operational costs. With SaaS customers are more flexible and they can use the service if they need it and exactly when they need it.

Benlian argues that SaaS adoption will give the customer strategic advantage in terms of allocating resources to their core capabilities. This is in a sense similar to outsourcing. In the SaaS case the company can relocate duties and responsibilities from developing, testing and maintaining outsourced software and hardware to core competence. The human resources can therefore be relocated to other processes and increase the company's productivity.

Giving the management of the service to the vendor allows customers to benefit from using the latest software. Since the service is standardized and managed from the vendor, he is

responsible for updating the features. As long as the supplier wants to be competitive the services must be kept up to date and the changes are able to rollout much faster. In addition to that it must be added that all the users will have the same version of the model and the software is compatible between customers. (Sosinsky 2011)

As pointed earlier the customer of SaaS benefit for the subscription service model, allowing them to spend on only what they are using. This business model benefits the vendors as well. With the monthly payment basis, the vendors enjoy a constant flow of income. Some authors even argue that a long term subscription is more profitable for the traditional software license setup. Another potential advantage for the vendors is the fact that they can oppose piracy with the low cost entry barrier. (Velte, 2011)

Important capability of SaaS is the on demand self-service. Customers can use the software capabilities without the need to interact with the vendor. (Mell&Grence 2011). This feature combined with the broad network access enables companies to access the service at convenient for them time from almost any location, as long as there is internet connection. Since the SaaS has minimal or non-existing requirement for customers' hardware capabilities, it becomes incredibly useful for remote work. (Sosinski 2011)

An important advantage of current SaaS compared to other cloud computing service model is that the SaaS has much more developers. Although this is not an aspect of SaaS but more a current market position, it should be indicated because it affects in great extend how the sector is currently developing. (Velte 2011). From economical perspective more developers represent high supply, and following the macro economic principles, when the supply is more the price is reduced. More developer is equal to stronger competition – therefore improved services and better marketing are needed. Moreover, because of the competition developers may try to fill niches by offering more specialized services.

Alongside with all the positive opportunities that SaaS has to offer the shortcomings should be considered as well in order to understand SaaS paradigm. If all the concerns about SaaS can be generalized in one word that would definitely be “security”. Security is the main issue of cloud computing according to an IDC survey including 244 IT executives. Privacy and security of data is difficult to maintain when third party members are transferring data over the internet.

Comparing to in-house architecture SaaS is more insecure. By its definition cloud computing is meant to allow wider accessibility and easier data sharing.(Morrow, 2011). The real problem is that even if the providers are doing their best efforts to protect the data there is still the possibility to be intercepted and modified (Velte 2011). In addition there is also a negative physiological security risk related to using SaaS. According to a survey conducted by Benlian, there is a possibility for manager's personal reputation and career to be harmed, let alone the reputation of the company, only by the fact that an external software application is used. Vendors of SaaS are using different techniques to secure customers' data and gain their trust. Methods such as data encryption, access protocol, methods for data aggregation and methods for erasing information at the end of the service agreement are fundamental for ensuring security of data (Buyya 2011).

Even if the SaaS can guarantee absolute security of their service there would still be a major data related issues to be resolved and they are from a legal character. The sole fact that a third party is in contact with private or/and sensitive data is a major legal challenge. In general, one type of rules applies for static data and different for data in transit. The case could be even more complicated if the cloud computing deployment is across countries. (Sosinsky, 2011.)For example, for Canadian companies it is simply not allowed to post their data on an US based cloud. Since there is not unified agreement, each country has its own legislation which service providers and customers should get informed about before proceeding. (Velte 2011)

Another sensitive area of SaaS, on which scientific community agrees upon is the lock-in of data. When a data is processed in SaaS it also gets bounded to the provider's application environment. In that, sense the customer might face some certain difficulties when the service is ended and the data will need additional reprogramming in order to be used from another vendor. The customer is also dependable on the provider's failures and future existence. (Buyya 2011). Still SaaS is not the worst case in the perspective of the other two cloud computing service models. Vendor lock-in increases from IaaS to SaaS to PaaS. PaaS has the highest level of lock-in data. (Sosinski 2011)

Since the SaaS application is available over the internet the internet connection itself becomes irreplaceable for business processes. The speed and reliability are not in control of either the service provider or adopter, yet both parties are dependable on it. In many cases the

slow internet connection is considered to be a bottleneck in the cloud process. In addition, because of the increase requirements toward the internet connections it is possible that the adopting company might have to purchase faster connection from the internet provider and therefore increase the overall cost for SaaS. Some author don't perceive the problems with the internet connection to be so crucial for SaaS, because after all it is almost impossible to imagine a working business environment without internet connection and therefore the vulnerability of SaaS from a limited internet access is more or less shared with the most of the business process. Therefore the SaaS dependability shouldn't be observed as a singular case but more as a part of the overall business environment and its relation to internet connectivity. (Benlian 2011)

One of the main reasons behind the success is that it allows cost reduction for using software applications. Unfortunately, in some cases there might be hidden cost in SaaS. The service is highly standardized and vendors benefit from that, but this is not entirely true for customers who would like to customize further the service. Here are the hidden costs. If a company would like to customize the service, first it will have to do it by itself and further all the maintenance, management and updates that the vendor provides will cover only the standardized components. The customized extension will have to be maintained from the company itself and therefore adding additional cost to SaaS usage. (Benlian 2011)

While using SaaS may enable companies to relocate resources to more essential processes it can also present a strategic risk. Such risk exists if SaaS are used for core business processes like customer relationship management (CRM) or enterprise resource planning(ERP). This may cause companies to become highly dependable on the vendor and lose flexibility to react on changes in the business environment. The reduced flexibility is a result of the fact that usually the vendor has full control over the application in use. (Benlian 2011)

Some shortcomings of SaaS are from pure architectural nature. For example a Business Intelligence (BI) is difficult to be grasped from a traditional SaaS approach. The data schemes and transactions are usually very complex, and the customer's configuration requirements vary from customer to customer. The application requires intensive processing, so it is not attractive to the vendor to provide the burden needed for this highCPU infrastructure(Velte 2011).

## 2.1.4 SaaS adoption categories

In this chapter the main adoption categories of SaaS, already discussed above will be grouped in four categories using the TOE and DOI frameworks. Each category unites factors with similar meaning and significance. The four categories are Usability, Complexity, Security and Price. Each category will be explained below.

### 2.1.5.1 Usability and Scalability – the core benefits of using SaaS product

The first group of attributes that was identified from the literature aims to explain the technological opportunities and advantages from using a SaaS. Here it is important to take under consideration the benefits for the customers from the usability and scalability of the service.

- Fast access through internet

It is enhancing the convenience of accessing the software application on their own devices, rather than using the officially provided cumbersome laptops (Gupta 2013). This increases the performance of the employees. In addition the service can be accessed from a variety of devices, which reduces the technical requirements to certain extent and allows usage from multiple access points. According to the P. F. Hsu (2010), 80% of the respondents point that internet access is paramount for the adoption decision.

- IS deployment time

The deployment time is crucial for SME. Time to value is vital because the companies want to make use from their investment as soon as possible and that is even more in force when the resources are scarce. The short deployment time is seen to be in a close relation to customers' perception relative advantage since in most cases the SaaS product can be used instantly after purchase.

- Quality improvement

Quality improvement is pointed as a one of the dominant reasons for adopting a SaaS application. It is believed that a SaaS provider can improve the outsourced process by increasing the efficiency and effectiveness. Specializing in one area of service provision and the high scalability allows the SaaS provider to provide best practices. According to A Benlian's research, the

quality improvement is the second highest perceived opportunity associated with SaaS adoption. (Benlian, 2011)

- Agility on demand

SaaS providers provide variety of services that are available even with high variation in customers' demand. SaaS clients value high the opportunity to use for the exact capacity of service when they have a high demand for it. In a sense, this gives great freedom for SME SaaS adopter. With the flexible delivery of the SaaS service SME can stay competitive to bigger and more resourceful enterprises by using high-complex services only when they are needed. Yet not all surveys agree with the benefits of service on demand. According to a Hsu's research (2010), "swift adjust system scale" is as far as 13<sup>th</sup> ranked perceived benefit of cloud computing.

### **2.1.5.2Complexity**

In general complexity of a service is explained by examining the adopters' point of view of how fast a services is understood and how easy to use it is perceived to be. The easier it is to use the higher the chances of adoptions are. Compared to the previous group of characteristics, the complexity of the service is seen as inhibitor of SaaS adoption and therefore this specification should receive special attention especially in the cases where companies with low IT capabilities are targeted. (A Benalin 2011).It is also important to add that cloud computing architecture, as a concept, might be a difficult idea to comprehend from unfamiliar adopters and therefore increase the complexity of the service.

- Easy to maintain and update

Although one of the main characteristics of SaaS is that the management of the application is entirely in the hands of the service provider, the adopters are still concerned about the complexity related to maintaining and updating the service. It might not be entirely inappropriate to assume that adopters have higher concerns because SaaS offers significant improvement in that area compared to in-house software solutions. "Easy to install/upgrade/maintain" is the SaaS factor that is perceived to have greater contribution to SaaS adoption with almost 90% positive rate. (P. F. Hsu2014).

#### - Interface

User interface includes such aspects as ease of use on frequent tasks, overall comprehensiveness of the graphic elements and intuitiveness of the software. (M. Godse 2011). According to the same study the usability of a service is the main factor of SaaS adoption with “user Interface” the highest evaluated attribute. In addition, Oliveira (2014) pointed out that that from a managerial perspective it is important for the system to be easy to use. Most of the respondents in his survey confirmed that they find the SaaS easy to use because the SaaS interface is similar to the software that they are using. It can be concluded that in order to make the SaaS product more applicable to risk averse managers, the user interface must resemble a software that is already in use.

One reason why complexity is perceived as an obstacle for adopting SaaS is the fact that cloud computing still hasn’t reached its mature stage. There is a potential in reducing the complexity of SaaS by introducing some common guidelines among applications. With time the similarities between SaaS solutions and traditional IT software will increase and it will not present anymore a challenge for managers. Unfortunately, at the current moment this guidelines are not yet established and therefore the complexity is still a major concern for the SaaS adoption. (T.Oliveira 2014)

#### **2.1.5.3 Security and Quality of service**

A security breach is a situation in which a company loses private data or other sensitive information. The SaaS architecture itself and more precisely the fact that the customers’ data is stored on a cloud, out of the control of the data owner, even more intensifies the concerns of SaaS adopters. The sole fact that a third party has access to sensitive data may raise privacy, legal issues. This is especially true regarding privacy from a legal point of view. Assuring the protection and the safety of the data is a different concern. (T. Oliveira 2014). It is common for the SaaS customers not to know how its data will be secured from the provider and what kind of recovery mechanisms have been applied. Service level agreements might be used as a guarantee for the security measurements. Another reason for concern is the fast pace of technology development which makes SaaS adopters unaware of the possible new threats. (Benlian 2011)

In major part of the literature the security concerns regarding SaaS and cloud computing are classified as the main flaw of SaaS and its biggest barrier for adoption. In a study conducted by P.F Hsu in 2010 among 200 Taiwanese companies, “security concerns” were pointed among the top three business concerns preventing SaaS adoption. Yet the author pointed that one possible reason for the strong security concerns might be the overall novelty of the cloud services. Another study, conducted by Benlian in 2011 among 2000 German companies concludes similar results. Security concerns are the biggest obstacle for SaaS adoption and the second most effective factor after cost advantages. If two different studies conducted in two cultural different business environments, it can be assumed that the security concerns are not due to specific differences in geographical or cultural behavior, but an overall perception towards SaaS. (P. F. Hsu 2014).

In contrast to earlier negative aspect of security and privacy issues, in later studies it can be observed a positive change in managers’ attitude. Gupta has observed this positive shift in 2013. The research concluded that SME are currently satisfied with the security and privacy condition provided by SaaS and therefore foster its adoption. Although SME accept the SaaS to a large extent, large enterprises are still reluctant to adopt in the same extent SaaS. For them the security and privacy issues are a major concern and a barrier for SaaS adoption.

T. Oliveira has reached similar conclusions. In his research in 2014 he has found that the security concerns are not found to be an obstacle in adopting SaaS. What is more important here is that Oliveira tries to elaborate a possible explanation of this phenomenon, which is in contrast to the general believes. One possibility might be the advance in privacy-enhancing techniques and encrypting systems which are able to provide better security for the data stored on the cloud and therefore increase the confidentiality in SaaS services. (T.Oliveira 2014)

As it appears, with the progress in the encrypting systems and the advance to maturity of SaaS and cloud computing in general, the security concerns do not inhibit the adoption rate of SaaS and companies are much more open for using cloud applications. Still data integrity and privacy are sensitive topics. SaaS providers must invest in security, in order to ensure protection. Doing so, providers will gain the customers’ trust and should improve continuously in order to maintain the level of security. The issues should be addressed and customers reassured about the high security standards in order to foster the adoption rate.



## Service quality guarantee

A major issue for SaaS adopter is the constant quality of service, assured by the providers. A possibility of performance risk exists – this is an eventual state in which the SaaS provider may not provide the expected level of service. As already established, when cloud applications are provided, they are managed and maintained from the service provider and in an unlikely event of service breakage the provider must guarantee prompt maintenance and minimum time of service unavailability. In a case of service unavailability the day to day operations of a SaaS user may be disrupted and depending on the software application's relation to the core business processes it may lead to inefficiency and even to damaging the company's reputation. This performance risk has an impact on SaaS adoption and it has been considered to be one of the most crucial aspects against SaaS adoption. (Benlian 2011)

It is important to understand which attributes of the performance risk are the main concerns of SaaS adopters in order to pinpoint where exactly the service quality should be improved. P. F Hsu (2014), has studied the SaaS adoption using the TOE framework and the results show that the main concern of the adopters is the fact that the provider can't deliver quick response. In a state of absolute dependency from the service provider on time communication and actions are from great importance. The next in line is "unexpected service unavailable issues". Similar to the finding of Benlina (2011), unavailability of a service could have dire consequences over company's performance. Insufficient service quality guarantee is another aspect of the performance risk that could prevent the SaaS adoption. All three attributes are in the top five business concerns regarding SaaS adoption with 90% of the respondents showing their uneasiness regarding those issues.

Connectivity problems and system outages are also potential problems for SaaS adopters, since the service is delivered via internet, but unlike quality of service, connectivity problems are not in the powers of application provider to control or maintain.

Not all aspects of the service quality assurance have a negative impact in the adoption process. One of the positive ideas related to SaaS adoption is the professional tech support that the service provider can execute not only in case of problems but also in the everyday processes.

Majority of the SME perceive the cloud provider's professional tech support as one of the major benefits received with using SaaS products. (P.F Hsu 2014)

One possible tool to ensure the quality of service is the service level agreements (SLA), that are used in cloud computing. Cloud SLA are standardized so that they can be valid for wider audience. Customized SLA are difficult to obtain or enforce and the standardized ones are limited in terms of defining standardized chargeback rates. SLA cover only a certain aspect of the SaaS and business risks outside of SLA coverage should be taken into consideration. (Sosinsky, 2011)

#### **2.1.5.4 Pricing strategy for SaaS – cost**

It might still be debatable about which is the most important advantage of SaaS and cloud computing. Many of the studies are suggesting that there is one benefit that holds the key for SaaS success and that is the dramatically lowering of the cost for small companies in their effort to use more compute intensive services that were until that moment available only to large enterprises (S Marston 2011). Furthermore, with SaaS companies cannot only decrease the overall cost for computing but in the same time reduce the risk and cost of overprovisioning and under provisioning. To simplify the SaaS adoption can help companies to shift the IT cost from fixed to variable. (L.R Oliveira 2013). All those conclusions have been made on the scope of theory, but as this paper aims to identify and generalize the SaaS adoption criteria, it is important to study the adopters' perception of the cost reduction and how they evaluate the cost benefits of cloud applications.

It is generally believed that any reduction in the cost is welcomed from a company. In the majority of cases a lowering in the cost structures are warmly welcomed from the companies but in case a company is highly concerned with the security shortcomings of SaaS a further reduction in cost might be associated with even further lowering the protection level. In 2014 a study has been conducted to estimate how advantageous cost savings and security concerns are perceived in cloud computing adoption process. The study concludes that cost savings are valuable cause for explaining the advantage of cloud computing adoption. Cost savings are perceived to be one of the main reasons for adoption cloud based applications in industries such as, technology, manufacturing, education and services. (Oliveira 2014).

More details examination of cost reduction is needed in order to understand which aspects are valued from the adopters. Sub-categories must be identified in order to make a better evaluation. P.F Hsu using the TOE framework for examining cloud computing adoption model was able to evaluate the business concerns and benefits. Among the top three benefits that adopters identify in SaaS were the reduction of IT expenses with 83% of the respondents agreeing with its importance and reduction in the IT employees cost with 70% support. Although not so strongly supported the cost reduction in IT personal has effect on SaaS adoption. Of course reduction in employees cost doesn't necessarily mean letting people off, because this might raise more concerns. It can be interpreted that with the management and maintenance of the SaaS application done by the provider the company's own IT personal will be able to dedicate more time on core business process.

An interesting study has been conducted from Gupta in 2013. In that paper the cost reduction benefits may affect several aspects of cloud computing adoption and more precise the ease of use, sharing and collaboration and usage and adoption of cloud computing. There is a significant positive relation between cost reduction and all of the three studies variables. It can be concluded that the cost reduction is one of the primary reasons for adopting cloud applications. Moreover the greater the cost reduction is the better gets the communication among stakeholders.

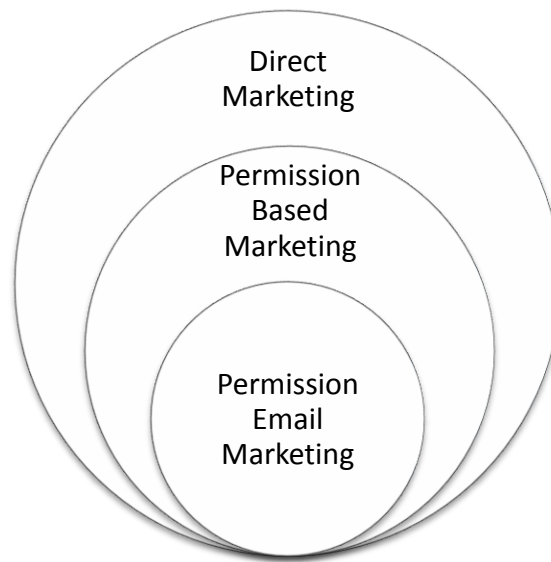
Some suggest that the cost advantages are the strongest and the most consistent factor, which significantly affect the perceived benefits from adoption a SaaS application. The report suggests that companies adopt SaaS as a mechanism to reduce the capital expenditure while being able to increase the cash flow. (Benlian 2011). In other studies it can be found that that, contrary to the general believes, cost reduction is not the main factor for the adoption of cloud applications. Cost savings are still a major influencer and are ranked on third after security concerns and convenience, as a reason for SMEs to move to cloud.

## 2.2 Email Marketing

This chapter is dedicated to provide understanding over the phenomenon of email marketing and why it is considered to be one of the most cost efficient marketing channels. But before proceeding to the email marketing and its implications, it is important to explain how the

marketing theory evolved to its current state. Email marketing is analyzed from the perspective of permission based marketing, which by itself is sub-level of direct marketing.

Below is a table which tries to capture the relation between Direct Marketing, Permission-based marketing and Permission Email marketing. The layers are based on the level of permission that is given to the marketer from the message receiver.



*Figure 4. Relation between email marketing and direct marketing*

### 2.2.1 Direct marketing

It was generally believed that the fundamental purpose of mass marketing was to increase the sales of a company by delivery a certain marketing message to as wider audience as possible. In time marketers realized that mass marketing has its shortcomings. Nowadays it is getting much more difficult to draw a crowd, due to many different factors such as information overload, growing number of information, etc. and without a crowd, there critical “mass” can’t be reached and the marketing message is neither efficient nor effective. In addition, despite the hard evidence against it, the marketing world is still relying heavily on the old metrics like reach and frequency and perceiving them as a pathway to success. (Heaton 2006).

Direct marketing (DM) reduces the confusion and uncertainty of mass marketing by going right to the customer. DM originates from companies selling their products directly to consumers by sending catalogue and using mail-order or other delivery service. For this start contributed the credit facilities that were offered from companies and the customers' convenience of shopping from their home. From this otherwise simple beginning, DM has evolved to be a complex science. It involves collecting and storing customer data, analyzing the performance and etc. (Harridge-March 2008)

### **Main pillars of direct marketing**

#### **Database**

Database is a fundamental necessity when it comes to DM. Detailed information about the customers and their habits should be stored, maintained and more importantly to fit the purpose for which is intended. It is important that the data includes the exact media in which customers want to be reached. In the current business environment there is wide variety of touch-points and it will not be trustworthy if certain customer receives the same marketing message from two or more different media channels. Additional customization is needed in terms of how each customer likes to be addressed. Personalized message and using customers' favorite media makes them feel like they are in control of how the marketing messages are received and moreover the DM is perceived less intrusively. Data protection and security are also from utmost importance.

#### **Personalization**

With the advance of technologies companies are able to personalize products, prices and promotions in order to align with specific customer needs. Any information can be used as a criterion to customize a marketing message, even one time transaction can yield volume of information for customization. Companies use complicated recommendation algorithm that recommends products on the bases of previous experience and also analyzing the purchase behavior of similar customers. One prominent example is Amazon.

### Strategic customer relationships

Using direct marketing allows marketers to collect much more precise and valuable information about their customers which can allow them to increase their revenues. The literature recognizes two major methods to increase revenues – by attracting new customers and retaining the existing customers. These two strategies need to work together in order to increase the share of customers' wallet and reduce the churn rate. Companies need to discover who are their most valuable customers and try to retain them, and with the direct marketing data it can be identified how those customers were attracted and the same approach should be used in attracting similar customers.

### Measurement of response

Contemporary customer relationship management software improves the process of analyzing marketing campaigns. As a result, it becomes much easier to test different prices, offers and messages and identify which will be the most profitable combination for different customers or clusters. Measuring the profitability of customers also becomes easier, since the marketing expenses for each individual and their effectiveness are easier to calculate. With more accurate lifetime profitability the retention strategies can be better targeted.

The knowledge for comparing and studying previous campaigns can be used to design future campaigns so that it can customize the marketing media, tools and message to fit better the targeted respondents and achieve the targeted objectives.

## **2.2.2 Framework for direct marketing decisions – implementation**

In contemporary marketing there is a tendency of narrowing the focus. The reason for the shift is the fast growing share of direct marketing sales. The most innovative form of direct marketing is online marketing which is done through the internet. Apart from internet marketing, direct marketing strategies can also be conducted through direct mail, catalogue, direct response, telephone and face to face.

Direct marketing is a powerful tool to reach customers and increase the efficiency and effectiveness of a marketing campaign. It is important to study different direct marketing

strategies and identify what are their strong and weak sides. In the following chapter two variables will be used to compare different DM strategies. The two dimensions will be cost for implementation and control over the marketing resources. (Mallin&Finkle 2007)

### **Online marketing**

The internet has revolutionized the way we do business and direct marketing has benefitted from it by using online environment and reach customers faster and maybe cheaper than ever before. Online direct marketing allows marketers to effectively reach any target market. The costs related to this type of direct marketing are relatively low. Companies might have to invest in servers, software, connectivity and web site development. In current business times, companies are anyway investing in computing technologies and therefore the marginal cost for direct online marketing are constantly lowering. A major problem has occurred with unsolicited online marketing messages via e-mail and “spam” laws has been put in force to limit this type of direct marketing, but this topic will be studied in chapter 2.2.3

The control which a company has over its direct marketing resources is higher than ever before. Every step of the process of conducting an online campaign through analyzing the response and fulfilling an order are easily directed, monitored and supervised. One of the most essential aspects is the customer database that will be used. A database can either be created or purchased or mixed of both. Whatever the origin is, the control over the database is high and the data can be analyzed and manipulated for future campaigns.

### **Direct Mail**

Direct mail is all about sending specific marketing message or other type of communication to a customer at certain physical or electronic address. A direct marketing message can contain a variety of marketing content such as catalogues, sales letters and newsletters. Direct mail gives one huge advantage to marketers and this is the possibility for one-on-one communication and therefore raises the reach of target customers. Direct mail, similar to online DM has a high level of control over the marketing resources since the direct mail marketing message and design is designed in-house, further the control extent to precisely which customers to receive the message, when to be delivered and the total size of the target market size can be exactly aligned according to the needs of the strategy.

Because of the cost of the printed materials and the delivery cost the overall expenses for a direct mail campaign are relatively high. Another minus of the direct mail is the low response rate due to customers' rejection of "junk mail", which is estimated to be around two percent and therefore increasing the cost for reaching a single customer even higher.

### **Catalogue marketing**

Catalogue marketing has grown over the past 25 years. Catalogue marketing is mostly used to present a set of products which is targeted to satisfy the needs of a certain target group where the main call to action is customers to make direct orders choosing from the catalogue.

With the recent success of online marketing, the use of the traditional mail catalogues appears to be the less cost effective option. Still companies continue to use the catalogue marketing because it is difficult to estimate which marketing channels are more influential, depending mainly on personal preferences. Some studies in the US have concluded that a business doubles its chances for an online purchase by mailing catalogues. The biggest part of the cost for catalogue marketing is because of the printing and mailing expenses. Still this is a cost effective solution useful for small businesses. On the other hand, the control over the catalogue is small due to the high quality requirements of the catalogue, which in most cases requires printing and designing services to be outsourced.

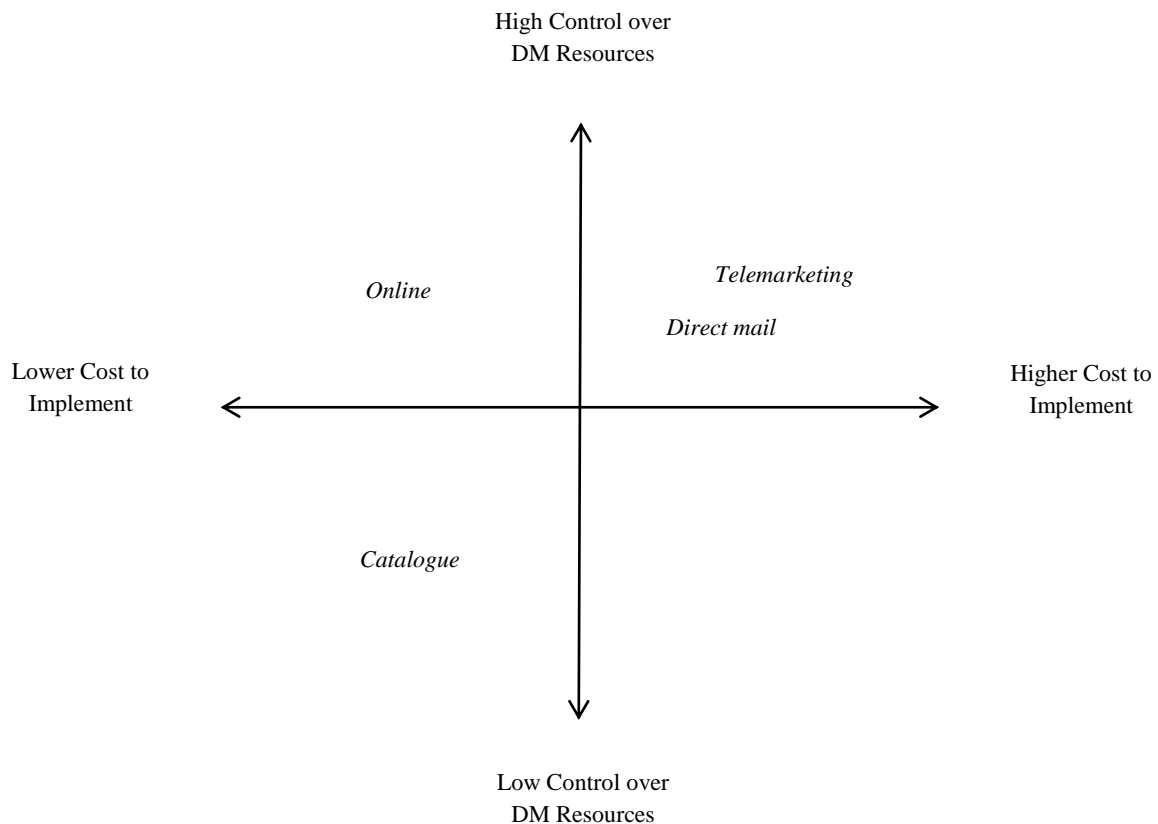
### **Telemarketing**

Telemarketing includes all the activities where telephone is used to sell directly to consumers. In 2005 telemarketing was the major direct marketing communication tool. In the same year it was estimated that about 40 percent of direct marketing expenditures and 36 percent of the direct marketing sales are accounted to telemarketing. There are few factors on which depends the success of a telemarketing campaign: well trained and rewarded staff, reliable and updated list of clients and effective message.

The cost for direct telemarketing campaign is relatively high. There is cost for employees, facilities and operational expenses for using the telecommunication services. In addition, similar to e-mail marketing, there are legal restrictions against unsolicited marketing messages, which may reduce the target group and increase the costs.



A positive aspect of telemarketing is that it allows a high level of resource control. Telemarketers can be supervised, sales can be measured and in most cases the sessions are recorded. All this enables marketers to analyze the process and improve the overall process.



**Figure 5. Cost – Control Direct Marketing Matrix ((Mallin&Finkle 2007)**

Direct marketing can help marketers to reach more customers by allowing them to reach directly the respondents. Usually the direct marketing campaigns are more effective than traditional marketing, as for traditional marketing extensive financial resources are invested in TV and paper ads, where there is high impression rate, but the response rate is relatively small and difficult to measure and account for, while direct marketing will yield higher response

rate with significantly smaller marketing budget. The successes of each direct marketing campaign will attract more attention and every marketer will start using direct marketing strategy and in most cases they will compete for the same customers but just on the platform of direct marketing.

Important aspect for direct marketing, and for any kind of advertisement in that matter, is that there is a limit to the amount of information that a human can absorb. When adding the constantly increasing budgets for advertising it is inevitable to drive the consumers to the state of information overload. The mailboxes are overflowing with advertisement; there are more TV channels available than a subscriber can watch. The point is that in the current state of information overload a marketer is in a race to be noticed not only with the direct competitors but with everyone who is trying to get customer's attention and time. (Seth Godin, 1999)

### **2.2.3 Problems with Unsolicited mail (UCM) or SPAM**

There is one direct marketing channel that is a huge point of interest for the scientific community and this is the e-marketing and more precisely the email marketing. It offers fast and cost effective medium to reach millions of potential customers all over the world. The growth of email marketing has led to increase in the number of unsolicited commercial emails (UCE), also known as SPAM. As a result the UCE is considered to be a huge problem for both customers and marketers. For customers, because their privacy gets violated and the issue for marketers is in the fact that SPAM undermines the efforts of permission based email-marketing. SPAM has also a negative effect over companies. This effect is expressed in the time employees invest in dealing with UCE, resulting in lower productivity which in 2003 yielded over \$10 billion of lost productivity.

Unsolicited commercial email is defined as any act of sending an e-mail with commercial purposes, without the explicit permission of the receiver. This action may not be welcomed by the receiver and the communication may be considered to have a harmful potential. Since the classification of an email depends on receiver's perception it is important to take into account the attitude of the recipient and agenda of the sender, which might be advertising, promotion or

sales. It is important to point that apart from the commercial purpose of UCE, exists an unethical practice of using UCE for distributing malware and other scam practices which can harm the recipient. (Moustakas, 2006)

From the literature there are two noticeable characteristics of UCE which can be used to classify UCE. The first dimension is the degree to which an email is perceived to be from useful to disturbance or even causing harmful effects. The second one is the recipient's involvement and initiation in receiving an email with a commercial content. The email might be initiated from the receiver itself or from a third party.

*Table 1: Classification of UCE, Source "Email Marketing on Crossroads" Moustakas*

		Potential harmful effect	
		Low	High
Origin	Third party initiated	II	IV
	Self-initiated	I	III

This type of UCE (I), is initiated from the receiver and the company has his high degree of consent when sending commercial emails. A direct relationship exists between the sender and the receiver. Most common methods to obtain receiver's consent are through web forms, email requests or any other means of subscriptions. It is common practice to provide an option for unsubscribing at the end of the email, which is simply called opt-in. An opposite option that should also be presented in permission-based marketing is opt-out, where subscribers can easily unsubscribe from receiving promotional messages from. This is a perfect example for permission based marketing, which will be the subject of the next chapter.

The second type (II), is characterized with some level of recipient's content regarding commercial emails. The difference with the first type is the fact that a third party is initiating the communication. This can be described as indirect permission based marketing. Usually while the users perform a certain action like making online purchase, he might be asked to subscribe to a specific email list for similar or related services. After the users voluntarily entering the email list

his contacts are presented to third parties who may approach the user. Here again a good practice is to present an opt-out opportunity.

The third type (III), of UCE happens without the permission or the consent of the receiver. The email can be compromised from using public domains, non-secure websites, “free” online services, sharing personal information on public forums, etc. The point is that the user has contributed somehow to allowing his email to be obtained and used for UCE. The degree of perceived harmful effect is much higher and in addition the opt-out links may not work and using it may cause even harm.

In the last category (IV), the intentions of the UCE sender may even exceed the commercial purposes and have harmful effect. The identity of the sender is unknown. Opening the email could contaminate the receiver’s software with harmful spy codes, malware or other potentially damaging software which could cause harm to the recipient. It is not uncommon that the recipients may not even be aware of the attached harmful codes.

For those reasons direct marketing is somehow imperfect. Information overload, limited attention, high competition and strong resistance towards UCE motivated some scholars to look for a different approach with which they could improve direct marketing and in their search they recognized permission based marketing as a solution that can both increase the response rate and decrease the cost for executing marketing campaigns.

## **2.2.4 Permission based marketing**

Permission-based marketing offers the consumers the opportunity to volunteer to be marketed to. By talking only to volunteers, permission-based marketing guarantees that customers pay more attention to the marketing message. It encourages customers to participate in a long term interactive marketing campaign in which they are rewarded in some way for paying attention to increasingly relevant messages. This marketing approach is valued because it reduces the clutter and lowers the acquisition costs while at the same time increases the target efficiency. Usually typical methods for gaining subscribers are through own websites, referral links, social media, etc.

Permission-based marketing is not a new idea, but it is enabled by the advance in the information technologies. The internet is great direct marketing medium and the low cost of frequent interaction makes it ideal for permission-based marketing.

It is accepted that a customer who has given its permission to receive commercial messages has a positive and more loyal attitude towards the advertisement which should result in increasing the profitability and share of wallet of that customer. (MacPherson 2001).

The following three characteristics of permission-based marketing allow marketers to reduce the clutter and build long lasting relationship with their customers by turning them from strangers to friends. The first characteristic is “anticipation” – when a customer gives consent for receiving commercial messages, he is expecting to receive a message from the company and gives attention to the marketing message. With having the contact details of a subscriber a company can and should personalize message to be more appealing to the receiver. This is the second characteristic “personalization”. In addition the message can be customized to be more relevant to customers’ needs, which is why the last characteristic is “relevance”. (Godin, 1999)

In his book, Godin classifies the permission degree in five levels where each level has a different degree of time lapse and scalability. The five levels, starting from the lowest, are “situation”, “brand trust”, “personal relationship”, “points of permission” and “intravenous”.

Situation level is a temporary moment when one of the front-end personal is approached from a potential customer. A typical example is when a customer approaches a sales representative. The action is initiated from the customer and most likely he is planning to make a purchase or gathering useful information. In both cases well-trained sales person/marketer should be able to benefit from the situation. Nevertheless, if not treated properly the chance will be missed. That is why this is the lower and least potential level of permission.

Brand trust – this is the most common practice used from marketers. Half of the advertising budget is spend on building brand trust. According to Godin, brand trust is overrated because it is difficult to trust, measure and manipulate and on top on that it takes very long time to develop. Yet once the consumers have built their trust in one brand they will transfer the same confidence and permission to any new extension of that brand.

Personal relationship level is based on the individual relationship between the customers and the marketer. Using this relationship, a marketer can be extremely effective in temporarily focusing the attention of a customer or modifying his behavior. This approach can be highly productive when selling customized or highly demanding and involving products. The negative side is that this approach is completely dependable on the individuals and it is not scalable.

The fourth level is point permission. Points are formalized, scalable approach to attracting and keeping the attention of potential and existing customers. This level is based on creating loyalty programs where customers collect points with each purchase and later on those points can be used to collect a free gift. This method motivates customers to purchase more often and exclusively from the same company. Typical examples are airline companies and big retail chains. Companies can collect personal data and use it to improve their offerings.

The last level is “intravenous”- the highest level of permission. Reaching this level of permission a customer delegates most of his buying decisions to the marketers. In some cases the customer just have to approve the selection with a simple yes or no, other times the customer just pays the bill. This is the most desirable level of permission, but even a slight abuse or wrong selection of service or goods might bring the agreement to an end.

### **2.2.5 Email permission based marketing**

In the recent past email has become one of the most preferred communication methods for business. It cuts the cost for reaching customers, increases the speed and allows two-way communication and it has a potential to increase the sales and profits. In this paper by email marketing it is meant - permission based email marketing and it should be formally distinct from the traditional direct email marketing which is send without the permission of the receiver and in most cases it is considered to be unsolicited communication or also known as spam.

The marginal cost of sending large number of email messages is close to zero, especially when it is compared with other offline communication channels. Email marketing messages can be targeted and personalized to great extent. The potential of the email marketing is even greater considering the fact that having an online presence is almost impossible without having an email

account. For example, in 2016 the total number of email accounts will exceed 4.5 billion, out of which 77% will be consumer accounts and the rest 23% will be used for business purposes. Around 120 billion business email will be sent every day for 2016. (Email statistics report 2013-2017). The business has made a good use of the popularity of the email as a communication channel. 73% of the marketers agree that email marketing is core of their business. 20% claim that their primary revenue source is directly linked with email operations. In total 74% of marketers believe email produces or will produce return of revenue (ROR). ("State of marketing" Salesforce marketing cloud)

Email is a multipurpose marketing tool. It can be used to share information about existing and/or new products and services and to promote them. It is not uncommon to use email message as an opportunity to invite customers, to guide customers to web sites or other marketing mediums. Email is also a great tool to inform about the status of an order. There are many tools that marketers use to apply email marketing strategies and the most popular ones are newsletters, rewards programs and community building. (Mark Merisavo & Mika Raulas, 2004)

### **2.2.6 Advantages of email marketing**

In the recent years the marketers have proven that e-mail marketing has high return of investment (ROI). In 2009 email marketing has acquired the highest ROI compared to other marketing methods, according to the Direct Marketing Association.

Another great advantage of email marketing is the opportunity of customizing the messages and creates content that will be relevant and consistent to receiver's preferences.

Essential aspect of email marketing is that it can be measured precisely. Total amount of sent email, Bounce Rate, Open Rate and click through are some of the most used metrics that are measured in email marketing campaigns. The measurability gives opportunity for implementing analytics to gain deeper knowledge which can be used to improve future campaigns.

Email marketing is fast and efficient. Simultaneously with the success of email marketers a lot of computing efforts has been put into improving the overall performance of the service. With the existing tools an email campaign can be easily created and in great extent automated so a lot

of actions can be scheduled and executed automatically. In addition, if a clear call to actions is added, companies can have positive and most likely immediate effect on the earnings.

Here is it important to point out that all of the respondents gave their consent for receiving commercial email and therefore there is a higher chance that the promotional message will be seen, compared to other marketing channels.

## **2.2.7 Disadvantages of email marketing**

Undelivered email - the possibility that the promotional email may not be delivered is growing. Users are using more and more junk mail filters and although they have given their permission for the promotional email, this doesn't mean that it will not go to the "promotional" mail box and eventually stay there without getting any attention. In addition, some users directly delete all emails coming from outside their contact list.

Email response rate tend to decrease with time. Although the root for this problem could be related to philosophy, marketers are also suffering from the shift of attention. It is extremely difficult to keep the subscribers engaged in a long run, especially in this overloaded digital environment.

One of the main reasons for the response rate decay is the content of the promotional emails. The distribution cost of an email campaign is relatively small, but copywriters should be engaged in content creations. Engaging and interesting content could make all the difference between successful and useless email marketing campaign. A need for talent and additional expenses are another obstacle in front email marketing.

Email Overload has been addressed already in this work, but it has a huge negative effect for permission-based marketing as well. The email boxes are overflowing with email and even with the goodwill of respondents they might not be able to distinguish between solicited and unsolicited emails. (Feinberg 1997)

## **2.2.8 Customers' preferences towards different email marketing content**

As earlier discussed a relevant and interesting content is crucial for the success of an email campaign. Many studies have been conducted to identify the recipients' attitude towards



different type of email content. A study conducted by M. Merisavo and M. Raulas shows promising result about customers' preferences when it comes to different content in email marketing campaigns. Most of the appreciated content messages were about "special sales offers" and "information about new products".

*Table 2: Customers' preferences towards email content, Source "Web Advertising: The role of e-mail marketing" Chadwick & Doherty*

<b>Content message</b>	<b>Percentage</b>
Special Offers	90%
Information about new products	89%
Contests	68%
Information about events	43%
Links to interesting pages	43%

As seen from the table above "special offers" and "information about new products" are the most appreciated types of content. It will not be wrong to assume that marketers should be pleased from these results, considering the fact that one of the main purposes of email marketing is to promote directly to customers, it seems the right thing to do if that is exactly what customers will bring value to respondents.

Contests are also an interesting opportunity for content creation, with 68% approving such marketing methods. The contests are easy way to additionally involve customers with the brand and maintain high level of interest during the duration of the contest. This technique can also help increasing the brand awareness, if it is designed appropriately.

"Information about events" and "links to interesting pages" are valued from less than the half respondents, still the percentage is high enough to motivate marketers to experiment with them. For example, they can be used for guiding customers to other marketing channels to increase their involvement with the brand, introduce new areas of interest, etc.

In addition to general perception the study has identify two different types of users, using the communication frequency as a criterion. Respondents who prefer regular communication will be content with all of the already mentioned types of marketing message. Users who don't like to hear so often from a company appreciate special offers and different types of content and all the rest are not well appreciated.

## Most common marketing practices used by companies

It is right to approach the subject of email marketing from the both customer and company side. A study conducted in the UK has yielded intriguing results. 20 companies have been studied for a period of 18 months. They have been using different email marketing tactics. The used tactics can be divided in two big groups. The bigger half, around 56% of the companies was focusing the attention of receivers to some kind of incentive, while the other 44% didn't use incentives to attract more attention. The most used tactics are listed in the table below.

*Table 3: Most commonly used marketing practices, Source "Web Advertising: The role of e-mail marketing" Chadwick & Doherty*

Topic of the email	Percentage (%)
Discount/Savings	28%
Product Details	20%
Newsletter	14.9%
Occasion or seasonal promotion*	10.2%
Teaser	8.7%

Discount and seasonal promotions are the main tactics used in email campaigns, which rely on incentives to focus even more the attention of the respondents. Some of the less used tactics in the same category are contest, free gifts, bonus offers, etc. It is understandable that marketers are focusing more on the incentives to provoke customers. Many marketing strategies are based on the same principle. Moreover, it was already mentioned that these types of offers are most appreciated from email marketing receivers.

The second group of tactics is focused on non-incentive tactics and focus on providing more product details, newsletter and teasers about new products. Those methods might be more appropriate for companies with more complicated products. Also the reluctance to give discounts and promotions might be more beneficial in long run, since customers will not adapt and purchase product and services only when they are on promotion. (Chadwick & Doherty 2012)

## 2.3. SaaS adoption criteria – Theoretical Framework

In the previous chapter the most important characteristics of SaaS has been identified. In order to be used for email marketing purposes, they need to be clustered in groups. Using this method a more appealing and complex marketing message will be created. Already existing SaaS adoptions model and frameworks will be used as a criteria for selecting and grouping SaaS characteristics. In his paper from 2011 Oliveira has identified five main areas that adopting companies should consider and those are scalability, usability, quality of service, security and cost. Another applied approach is the use of technological, organizational and environmental (TOE) framework to examine the adoption model. The TOE model gives a wider understanding about the adopters' ecosystem with examining the technological, organizational and environmental aspects of a company. This framework has been used for SaaS service in several papers that led to conclusive results about the SaaS adoption model. (Alshamaila 2012, Hsu 2014)

### 2.3.1 TOE framework

The technological, organizational and environmental (TOE) framework was created in 1990 by Tornatzky and Fleisher. The purpose of this framework is to identify key factors that influence the adoption and implementation of technological innovations. The framework describes the adoption of innovations from three unique perspectives – technological, organizational and environmental context. TOE has been widely used since it was introduced. Many authors have found it applicable when studying innovations for e-business, medicine, education and recently for identifying cloud computing and SaaS adoption strategies. (Oliveira 2011)

Technological context represent the relevant and important internal and external technologies. It is important to point out that here the framework includes the equipment and processes that are considered to be also in the technological context. One of the biggest concerns for the companies is the extent to which the existing and the innovation technologies and processes will fit together. Three main criteria are included in the technological context – relative advantage, complexity and compatibility. Because of the similarity of the main criteria in the technological context of

TOE framework with the Diffusion of Innovations (DOI) framework, these three criteria will be discussed together with the DOI framework.

Organization context includes general characteristics of an organization such as size, scope, management structure, annual budget division, etc. In general the size of the organization is perceived to have great importance over the adoption of new technologies. Many scholars defend this assumption with the fact that big companies, in contrast to small and medium enterprises (SME), have more spare resources to invest in new technologies and innovations. Not everywhere in the literature, the size of a company is automatically believed to contribute to innovation adoption, and the case is much debatable when it comes to cloud computing and SaaS. The reason for that is the SME companies, although less financially fortunate might be more willing to invest in cloud computing, than big companies which can anyway benefit from using on-premise, large scale investments. (Borgman 2013)

Another important category from the organization context is the support of the top management. The support or lack of such can turn the odds in one or another direction. The support or reluctance of the management can be under many different forms like creating special activities to enhance productivity, team-building events to even giving certain amount of free work time that employees can dedicate in any innovation initiative which they fancy, like it is done in Google. The capability of cloud computing to change the business environment, budgets and processes has been admitted by scholars and without the involvement and support of the management it will be difficult to execute the changes.

The last characteristic of the organizational context of the TOE framework is the IT skills of the non-IT employees. As described already, the SaaS products expand beyond the normal IT processes and therefore in many cases the employees that will be working with the SaaS interface are non-IT employees. In addition, the processes that will be influenced by the SaaS adoption will be in departments different than IT and therefore the management responsible for managing and taking decisions for adopting the innovations may as well be with low IT skills. For those reasons the non-IT personnel is seen as a crucial factor for innovation adoption.

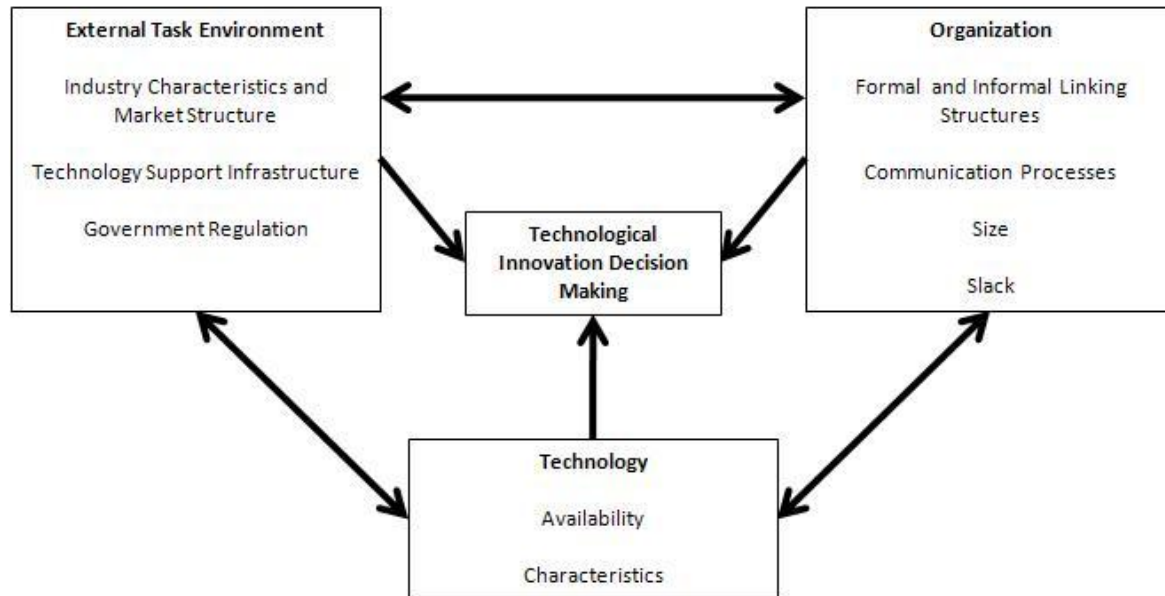
What makes TOE more holistic than similar frameworks is the inclusion of environmental context. Many have neglected to account the influence of social and market characteristics to

innovation adoption. The environmental context refers to macroeconomic environment in which a company is conducting business. Factors like competition, access to resources, governmental policies, suppliers and industry specification are the key component in the environmental context. Competition defines to what extent accompany is dependable and influenced by its direct competitors. Strong competition may force a company to look for an opportunity to improve its offering. In most cases this is expressed in increasing the resources dedicated in innovation.

Government regulation and legislation can further foster or restrain the adoption of innovations. Governments stimulate the technology adoption by setting technological standards or offer some kind of financial support under the form of tax reduction. Correspondingly, in certain cases the government legislation could suppress the innovation adoption process. One example for such behavior is the data security constrains that were introduced in some countries to protect privacy. This aspect becomes even more complicated when it comes to SaaS and cloud computing. The first reason for that is the fact that the company providing the SaaS service has a direct access to privet data, and the SaaS provider is seen as a third party and therefore the privacy of the some customers might be considered to be violated. The second one is related to the high accessibility of cloud computing, which might result in storing the data in a data center located overseas. In such case the situation with possible legislation problems escalates exponentially.

The technology support infrastructure may play an important role in innovation adoption as well. If in general the external environmental technology infrastructure is relatively resistant to technology innovation, many new ideas might be unrealized simply because of skeptical attitude towards innovations. Innovation requires a change in the current business process and in some cases a change in not always perceived to be a good sign. If the innovation in question is from a ground breaking, only the early adopters will be willing to apply it and if the technology support infrastructure is not mature enough for such changes the innovation is more likely not to be adopted.

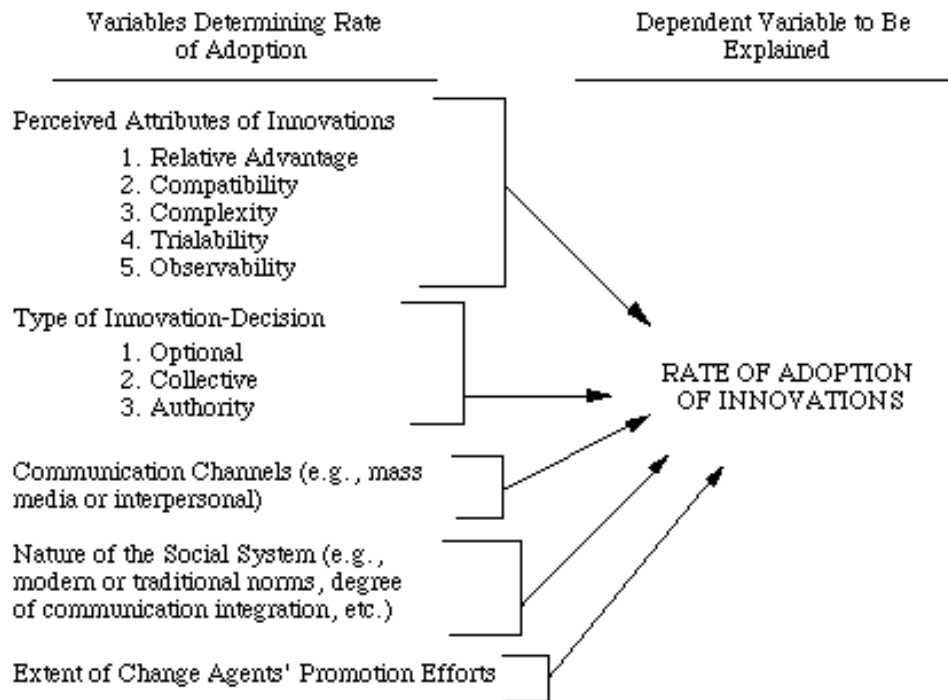
The summarized model of the TOE framework can be seen on Figure 4. Each of the three group of factors – technology, environment and environmental is connected with the other two and they have a direct effect on the technology innovation decision making.



*Figure 6. TOE Framework , Source: “Literature Review of Information Technology Adoption Models at Firm Level” T. Oliveira*

### 2.3.2 Diffusion of Innovation (DOI) framework

Diffusion of innovations is a theory about how, why and at what rate new ideas are spread through cultures operating on individual and firm level. Individuals are seen to have different level of willingness to adopt different ideas. It is generally concluded that the population has a normal statistical distribution. Depending on the different willingness to adopt individuals are divided in five categories: innovators, early adopters, early majority, late majority and lagers (Rogers 1995). The DOI framework is quite extensive and wide. From the whole framework the main point of interest of the author is focused on examining the rate of the adoption of innovations. The rate of adoption describes the speed with which an innovation is accepted and applied by a company. The rate of adoption is measured by total number of employees which have adopted the innovation for a certain time limit. This way the rate of adoption can have a numerical expression with which the slope of an adoption curve can be represented. The attributes of innovations and their rate of adoption can be seen on Figure 7.



*Figure 7. Attributes of Innovations and Their Rate of Adoption (Rogers 1995)*

In total there are 5 variables that determine the rate of adoption: perceived attributes of innovations, type of innovation-decision, communication channels, nature of social system and extent of change agents' promotion efforts. It has been estimated that the first variable – perceived attributes of innovations – explains between 49 to 87 percent of the variation in the adoption rate of adoption. But before proceeding with this variable the other four will be explained.

The type of innovation decision is examining how many decision makers are involved in approving the innovation. The general accepted principle is that the fewer people are involved in decision making the faster the process goes. An innovation decision made by an individual should be taken faster compared to the same process taking place in an organization.

The communication channels used in dispersing an innovation have an effect on the adoption rate. One of the main justifications of this statement can be explained in the following example: if the promoted innovation is perceived to be of high complexity, a more interpersonal

channel should be used. This typically occurs when the innovation is about to be accepted by late adopter or lagers. Using mass media in that case might even further hinder the adoption process.

The nature of the social system may have an important role in the innovation sharing and therefore adoption. The communication norms and interpersonal behavior are not static and they vary according to the environmental conditions. The degree to which individualism and collectivism is embedded can influence as well. For example if only small percentage of the employees are informed about a new idea, the degree of influence upon an individual to adopt or reject the innovation will vary sufficiently compared to the situation when the majority of individuals are aware and approve of the proposed innovation.

The last variable is the extent of change agents' promotion effect. The correlation between this variable and the innovation adoption rate is more indirect and nonlinear. The effect of this variable is relatively low and difficult to measure.

It is fair to presume that innovations differ in their level of attractiveness due to adopters' perception towards separate attributes of innovations. High percentage of the variation in the adoption rate of different innovation is explained by the five perceived attributes of innovation. Those five attributes are relative advantage, compatibility, complexity, trialability and observability. Each of those five attributes is one way or another related to the other four. (Rogers 1995)

**Relative advantage** – the degree to which an innovation is perceived to be better than its predecessor. The extent of relative advantage can be measured by different criterions such as economical profitability, social status giving, etc. It is vital for the adoption process that the nature of the relative advantage is synchronized with the adopters' criteria for measuring the relative advantage. The characteristics of the adopters in question also has relevance to defining the dimensions of relative advantage.

**Compatibility** – the degree to which an innovation can be related to existing business process, values systems, needs, practices and previous experience. A more compatible idea is more likely to be adopted compared to an innovation that is incompatible with sociocultural values and beliefs, previous introduced ideas, or client needs for innovation. In relation to SaaS and cloud computing, a great progress in this direction has been observed in the last several years, with the



interface becoming easier to use and the overall technical understanding of the users has increased as well. Still data and process incompatibility of existing and adopted innovations tend to be an obstacle that prevents innovation adoption.

**Complexity** – this attribute describes the extent to which an innovation is to be understood and used by the adopter. Some ideas are more evidence and simple to use by their adopters while others are not. Any idea can be classified on the complexity-simplicity continuum. Higher complexity of innovation will create higher uncertainty and therefore decrease the perceived value of the considered innovation and interfere with the adoption process.

**Trialability** – the extent to which an adopter can experiment with an innovation on a limited basis. An innovation that can be tried before actually being purchased is more likely to be adopted. If a certain service is triable and the adopters can actually try it hand on, the uncertainty related to the adoption decision will be decreased. In addition the condition of the product lifecycle is also important for the adoption. There is a substantial difference between the attitude of early adopters towards trialability compared to late adopters.

**Observability** – the extent to which the innovation and/or its outcomes are visible to the others. The outcomes of some innovations are observed easily and can be communicated to colleagues and other interested parties without much efforts. On the other hand, a high complex innovation may not be so easy to observe and describe. It is generally accepted that if an innovation is perceived to be easily observable by the interested party, the rate of adoption will be prompt. (Rogers 1995)

### **3. Research design**

#### **3.1 Case selection and introduction**

A single company was selected as a target for the case study. Company X has been founded in 2014. X is a UK based company, engaged in developing and selling cloud based applications – mainly software as a service (SaaS). Company X is a daughter company of Y. Y is a global company designing and producing automation for the food industry. Company Y has around 15 employees currently working and company X has less than 5 employees. Both companies are classified as small and both are privately owned.

Company X is a suitable choice for the case study because the company is in the last stages of developing a new SaaS product. The product is still not yet released to the public, but valuable resources are dedicated to marketing since the product will be soon introduced and email will be used as one of the main marketing channels. In addition, company X is perceived to be suitable for a case study because it is willing to co-operate in producing this paper.

In return for their support company X will gain valuable knowledge about how to market further their SaaS products. From the theoretical point of view, company X had difficulties in deciding which are the main benefits and concerns of the SaaS adoption process and how to promote and use this knowledge for improving their target and results of an email marketing campaign.

#### **3.2 Research method**

The method for data collection was (exploratory) quantitative observation technique, which records the behavior patterns of people, objectives and events to obtain information about the phenomenon of interest. As a type of administration, electronic observation was the most appropriate choice. Since the only source of data collection was an email marketing campaign, the recordings were made by an electronic device rather than human observation.

The main source of data is a result of an email marketing with four stages, with an email send for each stage of the campaign. As mentioned earlier, company X can still be considered to be a young company. There are three main aspects that need to be addressed concerning the data collection. How a recently founded company was able to get consent from more than 200 B2B

companies for receiving promotional email messages? Why four different marketing campaigns and how the content was created for them?

An email list of 200+ respondents was handled from company Y to company X to be used for email marketing purposes. In general, there is nothing unusual or peculiar in this action, but one of the main requirements for this paper is that the email respondents have given their permission to receiving promotional messages and therefore this aspect should be further explained. Company Y has an extensive permission based marketing list. When company X was created, company Y informed its email subscribers about its new business initiative and invited all email respondents to “follow” the new company with the promise of a SaaS that could contribute to their business process. This resulted in company X receiving more than 200 potential clients which are interested in company X and their pilot product.

Company X wanted to promote its SaaS product with an email marketing campaign in which the respondents will receive a sequence of messages in a period of two months. The campaign was with an information focus – aiming to give information about the product. The number of the e-mail marketing messages has been selected on the conclusions from the theoretical part of this paper. More precisely the focus of each of the four campaigns was Usability, Price, Security and Complexity. Each campaign was promoting the SaaS from the prism of one of the four aspects of SaaS adoption.

## **Research design**

A research design is a framework or a blueprint for conducting a marketing research project. It specifies the details of the procedures necessary for obtaining the information needed to structure or solve marketing research problems.

1. Define the information needed
2. Decide whether the overall design is to be exploratory, descriptive or causal
3. Design the sequence of techniques of understanding and/or measurements
4. Construct and pretest an appropriate form for data collection
5. Specify the qualitative and/or quantitative sampling process and size
6. Develop a plan for quantitative data analysis.

Malhotra and Birks (2003) suggest that when a researcher is trying to identify problems that are not necessarily apparent and are likely to arise in future and/or are difficult to measure in the sense of traditional quantitative research methods it is advisable to use problem identification research rather than problem solving research.

Qualitative exploratory research is characterized by a flexible and evolving approach to understand the marketing phenomenon. Objective to provide insight and understanding of the nature of marketing phenomenon that are inherently difficult to measure. Concept identification and exploration in the development of the new product or forms of marketing communication.

The main key factors for SaaS adoption will be identified from the literature and then they will be grouped into four categories and each category will be used as a base for one of the stages of an permission based email marketing campaign. After conducting the marketing campaign the results will be evaluated. The following measurements will be used in measuring and evaluating the results:

Send emails – this measurement represents the total number of email that have been sent in each email marketing campaign.

Bounced emails – for certain reasons not all send emails are received. Some emails “bounce” back. All emails that were sent and not delivered are called bounced emails. There are two types of bounced emails – soft and hard bounce. Soft bounce is due to temporary reasons like full email box or temporary unavailability of a server. In most of the cases hard bounce means wrong email and it should be removed from the list.

Delivered emails – these are all email that have been received. It can also be represented by deducting the bounced from the send emails.

Clicked links – almost in every promotional email there is at least one link that leads to a target destination where subscribers are encouraged to do certain action which may vary from making online purchase, subscribing for a free trial period, etc. Clicking on a link inside a promotional email is one of the main measurements of success in email marketing.

Open Rate = emails open/send emails

Un Open Rate = un-open emails/send emails

Bounce Rate = bounced emails/send emails

Click Rate = links clicked/send emails

Click/Open Rate = clicked links/opened emails.

### 3.3 Empirical data collection

The empirical data for this paper was presented from the case company X. An email marketing campaign was conducted for a period of 2 months during which four specific marketing messages were sent. The total size of the email marketing list contains more than 200+ unique accounts. A special permission was obtained from each account for receiving promotional messages. The total number of email respondents included in each marketing message was not a constant. For undisclosed reasons the case company used different number of email receivers for each of the four marketing messages. Despite the different in the total number of each stage of the campaign, all respondents were from the original email list with 200+ respondents. Therefore some of the respondents were exposed to more than one email message.

As a result the distribution of email accounts was divided as follows:

*Table 4: Email campaign stages*

	Number of receivers	Sending date
Message #1	203	T
Message #2	94	T + 43 days
Message #3	115	T + 58 days
Message #4	184	T + 62 days

As mentioned already, each of the four messages had a specific point taken from the theory:

Message #1 was pointing the functional benefits that this specific SaaS product can contribute and improve related process. Company X summarized this component as “why to buy our product”. In the paper this message #1 will be known as Usability.

Message #2 is about the complexity of the software and how simple it is to be used and how fast it can be put to action. Message #2 will be known as “Complexity”

Message #3 was focused on financial advantage of using SaaS – the main focus are the financial benefits that a customer can obtain from using companies X product. Message #3 will be known as “Price”

Message #4 is regarding security and quality concerns of service. Security is still considered to be a major obstacle for SaaS adoption as well as the quality and reliability of the service. This is why company X decided to address those two concerns in one email message since they used similar approach in tackling both negative perceptions. The last message will be known as “Security and Quality”.

*Table 5: Abbreviations and campaign outlines*

	Number of receivers	Sending date
Usability	203	T
Complexity	94	T + 43 days
Price	115	T + 58 days
Security and Quality	184	T + 62 days

## 4. Empirical Research

### 4.1 Results from the first stage “Usability”

The first stage of the campaign was to send emails aiming to attract the attention of respondents towards the SaaS product by emphasizing on the benefits that customers will get from using the software. Main aspects are how the product relates to their processes, how it can improve the current state and additional sector specific benefits.

During the first stage of the campaign a total of 203 email account has been used.

*Table 6: Summary of Stage 1*

Type	Amount
Send emails	203
Bounced	15
Delivered	188
Opened	50
Unopened	138
Clicked	6

From the table it is seen that from all emails sent only 15 were bounced. Those 15 bounced email messages can result from various reasons and the case company didn’t provide any explanation behind that number. The Bounce Rate for this 1<sup>st</sup> stage is only 7.4% and it is acceptable limits. What is more impressive to observe is the fact that a little more than ¼ of all delivered email has been opened. Yet a small setback is the small number of people who have clicked on a link after opening the first email. Only 6 respondents clicked, which is relatively low comparing the high Open Rate. Still, considering the information aspect of the marketing strategy, with opening an email, a respondent is more or less familiarized itself with the content of the message and even if not clicked the high number of open emails should be regarded as an optimistic result.



*Table 7: Stage 1 KPI's*

Type	Send	Delivered
Open Rate	24.6%	26.6%
Bounce Rate	7.4%	-
Click Through Rate	3%	3.2%
CTR/Open Rate	12%	12%

On the table above are listed the most important key performance indicators which are used in for evaluating the success of any email marketing campaign. It is important when calculating the Open Rate and Click Trough Rate (CTR), to take into account the number of bounced or undelivered emails. In the table above there is almost no significant difference between the rates, but the reason for that is the small sample used and small percentage of bounced emails. If the number of bounced emails was higher there would have been a significant difference between the measurements when the undelivered emails are not calculated.

## 4.2 Results from the second stage “Complexity”

For some specific reason not disclosed from the case company, the second stage of the marketing campaign, which is sending promotional message to promote the complexity advantages of their SaaS product, they have selected much smaller sample of the email list. In total, only 94 respondents were included in the email list for the second stage. This is even less than 50% of the first sample. One possible reason for that might be the long period of time between the first and the second stage of the campaign. The results from the second stage are as follows:

*Table 8: Stage 2 summary*

Type	Amount
Send emails	94
Bounced	20
Delivered	74
Opened	20
Unopened	54
Clicked	4

As seen from the table and mentioned earlier only 94 email were sent during the second stage of the campaign. Despite the lower number of send email the Bounce Rate is relatively high with 20 emails not being delivered. This number yields a Bounce Rate of 21.3%. On the other side, the Open Rate is more than acceptable with 27% of all delivered email being opened. The Click Rate is even higher than the average for the sector. (Mailchimp.com 2016)

*Table 9: Stage 2 KPI's*

Type	Send	Delivered
Open Rate	21.3%	27%
Bounce Rate	21.3%	-
Click Through Rate	4.3%	5.4%
CTR/Open Rate	20%	20%

In comparison with the 1<sup>st</sup> stage here we can see a sensible difference between the Open Rate and CTR when calculating the total sample and when the undelivered emails are removed, especially here, where the Bounce Rate is high. Another variable can be taken into account here and that is the ratio between the CTR and Open Rate, or in other words the ratio between receivers who clicked on a link from the email and the number of receivers who opened the electronic promotional message. It can be seen that every 5<sup>th</sup> opened email has been clicked on, which is an important fact that should be considered when evaluating the results.

### **4.3 Results from the third stage “Price”**

The third stage of the marketing campaign is focused on the “Price” and more precisely is the financial benefit that a customer will acquire from using the offered SaaS service. As already shown by the theory the reduction of cost is considered to be the second, if not the first driving force behind SaaS adoption. For the third stage a larger email list was selected, still smaller than the email list used in stage one. In total 115 emails have been sent and the results are summarized on the following table:

*Table 10: Stage 3 Summary*

Type	Amount
Send emails	115
Bounced	36
Delivered	79
Opened	17
Unopened	62
Clicked	6

One of the most striking numbers is the high Bounce Rate. More than 3 on every 10 emails were not delivered due to different reasons. There are two categories of bounced email – soft and hard bounce, in brief hard bounce emails will not be delivered at all, while soft bounce emails have encounter some small obstacle during the delivery process like full email box of the recipient, temporary unavailability of a server etc. There is much to be inquired about Bounce Rates, but this is not the main topic of this paper, therefore it will not be studied any further.

Another important indicator is also scoring low and that is the number of opened emails. Only 17 emails have been opened from the respondents. In general the results from the 3<sup>rd</sup> stage are not so discouraging when observing the number of clicks, when taken as a percentage. Six people have clicked on a link after opening the third promotional email. On the following table we can see what the results in terms of percentage allocation are

*Table 11: Stage 3 KPI's*

Type	Send	Delivered
Open Rate	14.8%	21.5%
Bounce Rate	31.3%	-
Click Through Rate	5.2%	7.6%
CTR/Open Rate	35.3%	35.3%

Yet again it can be seen how taking into account the Bounce Rate may affects the overall results and a possible wrong interpretation of the whole campaign. There is a difference in the Open Rate with almost 7%. Such huge difference is rarely observed. One reason for the high Bounce Rate might be that the company is still young and possibly not entirely experienced with email marketing campaigns, which might cause mistakes in conducting a campaign and result in high Bounce Rate, especially when the email database is still new. When the undelivered emails

are removed from the equation, the results are not so discouraging. The Open Rate is 21.5% which is close to the average for the sector (Mailchimp.com 2016). The CTR is also impressive with 7,6% of all respondents clicking on a link, even if not removing the undelivered emails the CTR is still remarkable with 5,2% of all recipients seeking more information in the area of “price” advantages of the SaaS product. As a subsequence of this metric, the Click Rate ratio towards open rate is remarkably high. Roughly every third opened email resulted in clicking on a link. This result can be extremely useful if used as a benchmark in designing future campaigns and defining their purpose.

#### 4.4 Results from the third stage “Security”

For the last stage of the campaign a much wider audience has been selected. A total of 184 emails have been included into the email list. It should be mentioned that this last stage has taken place only 4 days after the third one, which might suggest that the respondents might still have fresh memories from the previous one and this might affect their behavior. As already stated, the security issues are with similar influence over SaaS adopters as are the financial benefits. Therefore the results from this last stage should be observed with special attention. On the following table we can see what the results in terms of percentage allocation are:

*Table 12: Stage 4 Summary*

Type	Amount
Sent emails	184
Bounced	9
Delivered	175
Opened	26
Unopened	149
Clicked	1

From the first two indicators it can be observed that the last stage of the campaign has only 9 emails which haven’t been delivered which is remarkable considering the total 184 email being sent. This yields a total of 175 delivered emails. What might be not so favorable accepted from marketers is the low amount of opened emails and clicked emails. From all 175 delivered email

only 26 were opened and from those 26 only 1 respondent has clicked on a link somewhere inside the email.

*Table 13: Stage 4 KPI's*

Type	Sent	Delivered
Open Rate	14.1 %	14.9%
Bounce Rate	4.9%	-
Click Through Rate	0.5%	0.6%
CTR/Open Rate	3.8%	3.8%

In general there is no substantial difference between the KPI when removing the not delivered email from the equation. This is of course a result from the small percentage of Bounce Rate – only 4,9%. The low level of Bounce Rate might be a result of the fact that this is the fourth stage of the email marketing campaign and the hard bounce emails were most likely removed from the email list already. More attention should be dedicated to the low Open Rate and CTR. Both indexes are much lower than previously anticipated and definitely lower than the average for the sector. One possible explanation might be that this is the fourth email regarding the same SaaS product for which some of the respondents might have learned from previous emails or also the fact that this is the second email in four days might have a negative influence over Open Rate and CTR.

#### **4.5 Summarizing and comparing the four stages of the email marketing campaign**

By now each of the four stages was described shortly and their main features were pointed out. Each stage represents one time sending permission based email messages to a certain group of respondents, specially picked by the case company. A logical continuation of the analysis requires a comparison to be made between each stage. This being presented, more precise conclusions could be drawn in evaluating the effect of each one of them and how the SaaS adoption factors were perceived by the audience.

The following table represents the raw data collected from all four stages of the email marketing campaign:

*Table 14: Summary Of The Campaign*

	Usability	Complexity	Price	Security and Quality guarantee
Sent	203	94	115	184
Delivered	188	74	79	175
Bounced	15	20	36	9
Opened	50	20	17	26
Clicked	6	4	6	1
Delivery Date	T	T + 45 days	T + 58 days	T + 62 days

The individual assessment of the result could bring insights on the success of certain stage and/or the perceived importance of the SaaS adoption criterion explained. When compared the results will introduce much more sense and understanding and present a more holistic view over the process and results of the email marketing campaign in evaluating the customers' attitude towards SaaS adoption criterions.

Starting from the top of the table it can be observed that the total number of people included in each of the stages is different and the range between the maximum and the minimum is more than double. As already discussed the reason for the shifting size of email lists used for different stages has not been disclosed from case company. One possible explanation might be segmentation. It was already stated in this paper that the case company X is a daughter company of Y and all the email in the X's email list were acquired with the help of Y. Therefore it will not be wrongly assumed that company Y might have more extensive knowledge about the subscribers which have decided to join company X's email list, and therefore use that knowledge as a base for segmentation.

### **4.5.1 Bounce Rate**

The Bounce Rate during the four stages of the email campaign was varying. Starting reasonably at 7,4%, rapidly growing with 10% for the second and third campaign each and ending at acceptable levels of less than 5% in the last stage. Analyzing the Bounce Rate is important and it

shouldn't be overlooked. It is important to know to which of the two categories of bounced emails our data belong. A hard bounce indicates a permanent obstacle caused by various reasons like invalid email address or deleted account, while soft bounce is less threatening since it can be caused by a server being shut down, full email box and etc. The different types of bounced email can be seen in the table below:

*Table 15: Soft vs Hard Bounce*

	Usability	Complexity	Price	Security and Quality
Soft Bounce	13	19	35	5
Hard Bounce	2	1	1	1

As observer the hard bounced emails are only few and most likely they will have to be permanently deleted from the database. While the soft bounce is still more acceptable such high levels as in the second and the third stage of the campaign are intolerable since they account for 21% and 31% of all send emails. What should be done in this case is keeping a close look on the soft bounce and if the promotional messages are still bouncing back, the email addresses should be further examined and if the problem for the bounce can't be removed then these accounts should be considered as "hard bounce" and be removed from the database.

### 4.5.2 Open emails

The number of opened emails alone can be a measure for the success of any email marketing campaign. If the goal of a marketing campaign is to create awareness, measure customers' involvement and willingness to participate in an ongoing communication, etc. and the high number of opened emails or more precisely a high Open Rate can answer sufficiently to those preset marketing goals. Even if the aim of the campaign is to reach high number of click or otherwise, reach high CTR, the more opened emails there are the higher is the chance that someone will click on a link. The point is that even if high Open Rate may not be the purpose of an email marketing campaign, the high Open Rate is the most certain method to reach it. Even with low CTR, a high number of opened emails can help reaching a critical mass of clicks.

From the four stages of the campaign the first one has been dedicated to promote the usability function of the SaaS product. In total, 50 emails have been opened, which is twice as much as stage on second place which is stage 4, engaged with Security and Quality issues of the SaaS product with 26 opened emails followed by stage 2 and 3 which were respectfully aiming to promote the complexity of the product and the financial benefits that can be gained from using the SaaS product. On first look it is apparent that the “Usability” is by far the category that the email subscribers are most interested in. “Price” category is on the other end of the scale with least amount of interested respondents. Yet the situation is totally different when the not received (bounced) emails are excluded. In that case the category with the highest Open Rate is “Complexity” with a slight advantage over “Usability” followed by “Price” and Security and Quality assurance” being on the bottom.

*Table 16: Opened Emails Statistics*

	Usability	Complexity	Price	Security
Opened emails	50	20	17	26
Open Rate	24.6%	21.3%	14.8%	14.1%
Open Rate <i>recalculated</i>	26.6%	27%	21.5%	14.9%
Delivery Date	T	T + 45 days	T + 58 days	T + 62 days

A specific trend can be traced when observing the Open Rate and the recalculated Open Rate. The numbers tend to decline with each following stage, except between the first and the second stage where the Open Rate slightly increased. After the second and third stage it can be seen that the Open Rate decreases steadily. This is even more evident on the recalculated Open Rate where the rate of each following stage decreases with around 6%. One plausible explanation could be the time difference between each of the stages and more precisely the small intervals between the second and third stage which is less than 2 weeks and especially between the last two stages which were only 4 days apart. It has been studied that the attention of customers tends to decrease with time, if the content of the marketing message is similar and entertainment sections are not included, what was the case with the discussed marketing campaign.



### 4.5.3 CTR

The number of clicks is the bottom line on most marketing campaigns. Links included in emails are usually redirecting subscribers to a company's website or any other location in the internet which is supposed to bring customers closer to the action that marketers are promoting. The specific purpose of each marketing campaign might be different but the main driving forces are grow and maintaining the customer base and/or rising the profit by either increasing the sales, reducing the cost, etc. As already pointed out, the success of a marketing campaign is not necessarily evaluated only on the base of CTR, the Open Rate can be the main criteria for evaluation especially if the marketing campaign is designed to increase the awareness or the brand image.

The Click Rates for the first three stages of the marketing campaign are remarkably high, considering the sector benchmark average being around 2,5% (Mailchimp.com 2016). On first look, having 6, 4 and again 6 clicks on the first three stages of the campaign is not impressive, which is even more emphasized from the only one clicked received for the last stage. Yet again, when the CTR is calculated it becomes obvious that because of the short email list the CTR is more than satisfying 3.2%, 5.2%, 7,6% and 0.6% for each stage in a consecutive order. The CTR has been growing with around 2% for each stage, before it dramatically plunged during the last stage. Obviously the "Security and Quality" aspect of the promoted SaaS product is almost irrelevant for the subscribers as even the short time lapse between the third and the last stage is not a reason enough for such a dramatic change in respondents' attitude.

Another measure that can and most likely should be included in the analysis is the relation between the clicked and opened emails. When designing and evaluating an email marketing campaign it is important to know that ratio. Knowing how much of the email receivers, who have opened an email have clicked on a link could give clue to the marketers how to improve a campaign. If the ration between clicked and opened email is low then more efforts might be allocated in improving the message and emphasize on the content and encourage more clicks. If on the opposite the ratio is high, then more resources can be dedicated in improving the Open Rate. In the current campaign this ratio is different for each stage. The "Price" aspect of SaaS has the impressive 35.3%, which means that more than every third person who clicked on an email

has clicked on a link as well. The second stage is also promising with every 5<sup>th</sup> opened email being clicked on. All the results can be seen on the table below.

*Table 17: CTR statistics*

	Usability	Complexity	Price	Security
Clicked emails	6	4	6	1
CTR	3%	4.3%	5.2%	0.5%
CTR <i>recalculated</i>	3.2%	5.4%	7.6%	0.6%
CTR/Open Rate	12%	20%	35.3%	3.8%

## 4.6 Comparison by gender

The author of the paper believes that it will be a scientifically contribution if the respondents of the studied email marketing campaign were to be divided and studied separately on the bases of gender. According to a research made in Germany (Eileen Trzcinsk 2010), around one third of the high-level management positions were currently occupied by females. In the case study that is analyzed in this paper, the ratio between male and female managers is different among the four stages of the marketing campaign. In average the female respondents represented around 20% of all subscribers, which is lower than the average of 30% observed by Trzcinsk. Yet even so, given the opportunity the two separate groups should be observed and general differences might be used for more precise segmentation and campaign accuracy and effectiveness.

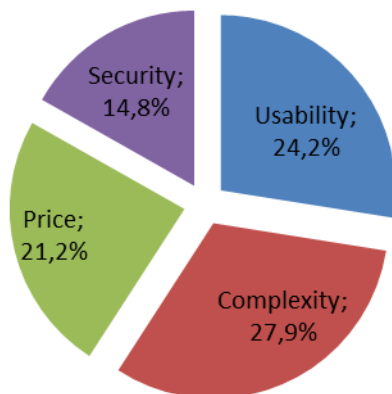
*Table 18: Gender Distribution*

	Usability	Complexity	Price	Security
Male	86%	82%	66%	77%
Female	14%	18%	34%	23%

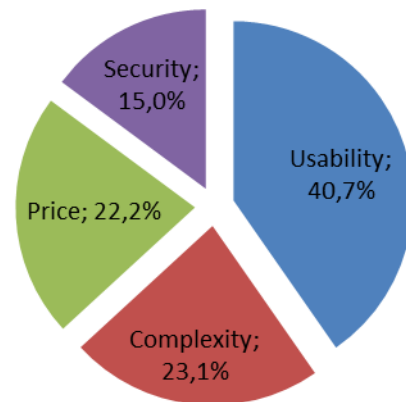
Since the number of subscribers is not sufficient enough to make a valid analyze mainly the metric “Open Rate” will be used to examine the difference between genders attitude towards the

four main aspects included in SaaS adoption. When comparing the behavior of both genders there were more similarities than mismatches. The main differences discovered were in the first two stages of the campaign. Females have much higher interest in the usability functions of SaaS product, compared to the male audience. Almost 40% of all females who received a promotional mail about the usability of the SaaS product showed interest in the topic and opened the email to get additional information about that feature. At the same, only slightly more than 20% of the male subscribers showed interest in “usability”. From here it can be inferred that the actual benefits of using the product are from greater importance for females than for males and emphasizing on functional advantages of a product will attract more attention from the targeted women. Another interesting aspect is the higher interest of females in financial benefits that could be gained by using the SaaS product. In total the Open Rate is almost equal to the Open Rate for males subscribers, but what is more intriguing is that every second female who opened a email from the “Price” clicked on a link as well. It can be concluded that although one fifth of all women were interested in price advantages, their interest is much stronger than in any other category shown by both genders. The following two charts represent what is the relation between the Open Rates in both genders.

**Open Rate for male subscribers**



**Open Rat for female subscribers**



## 4.7 Complex behavior of two and three opened categories

So far all four stages of the campaign have been regarded as individual entities, not related with each other. But that shouldn't be the case since the all four stages have been executed over the same database of email addresses. The gathered information gives a possibility to analyze the activity of all respondents through each of the stages and evaluate and identify which are the potential customers and eventually the early adopters of the SaaS application.

In theory, a useful reference between the stages can be made over two main indexes, which are Open emails and Clicked emails. In practice, a valid conclusion can be drawn only from considering the Open Rate. The number of clicks is not useful in this case because of the small number of clicks. In total only one email receiver click on a link in more than one stage of the campaign. More precisely, this one respondent requested more information for the SaaS product by clicking a link inside the email message sent for the "Usability" and "Security and Quality" stages of the campaign. Some remarks can be drawn from this individual behavior, but the result can't have any scientific significance, and that is why clicks will not be used in evaluating the users' cumulative perception.

Fortunately, the situation with the Open emails is better. In total 596 emails have been sent during the campaign, out of which 516 have been delivered and 113 emails were opened. Some limitations can be observed even before analyzing the data, that is the maximum number of users who theoretically might have opened all four emails sent during the campaign, and this maximum is 17 subscribers. Yet that perfect case scenario is very different from the real situation, where not even a single subscriber has opened an email from each stage of the permission-based marketing email campaign.

Starting from the beginning, there are 90 unique subscribers who opened at least one email message. Considering the total number of open emails which is 113, it becomes apparent that some of the respondents have opened more than one message.

*Table 19: Unique Open Emails*

	1 Opened email	2 Opened emails	3 Opened emails	Total Unique Users
Count	71	15	4	90

While the point of this chapter is to analyze the complex behavior of the subscribers, some attention should be dedicated to the subscribers that opened only one of the four emails sent to them and make some conclusions. On the table below it can be seen emails from which sub-categories were opened only once by subscribers:

*Table 20: Unique and Standard Opened Emails*

	Usability	Complexity	Price	Security
Opened Email	50	20	17	26
One email open	34	10	17	10

One specific peculiarity attracts the attention at first and that is the fact that all subscribers that were interested in the “Price” aspect of the SaaS service were not interested in any other specification of the product. The opposite situation also raises question about the users’ behavior.

From all subscribers that opened one of the other three categories didn’t show any interest in the “financial” benefits and specifications of the offered SaaS product. It could be inferred that people interested in “Price” are more entirely interested of how much financially they can benefit from using the product, without being interested in any other benefit. The opposite situation might be explained by presuming that the professionals who were interested in technical and functional benefits of the SaaS product were not seriously considering the possibility of purchasing SaaS service at the moment the campaign was conducted and therefore not open the email regarding “Price” benefits. Another possibility could be that they were able to acquire the information about the “Price” conditions from some other source of information. It should be reminded here that in each of the four emails used in the campaign had included links to the official website so it can be possible that some of the respondents could have accessed the information from the official website or similar sources.

After the unique single click users have been identified the analysis can proceed to examining the complex behavior of the subscribers who opened more than one email. As it was already inferred all the users who opened emails from the “Price” category didn’t show interest any other of the three stages and this statement is valid in the opposite direction as well. Therefore the complex behavior could be only between the “Usability” (U), “Complexity” (C),

and “Security”(S). The possible outcomes for two open categories are three – UC, CS and US. The possible outcome of three opened categories is straight forward limited to only one possibility and that is UCS. And here is the actual distribution of unique users grouped by categories:

Table 21: *Unique users with more than one open email*

	UC	CS	US	UCS
Number of unique subscribers	3	3	9	4

From the table above it can be seen that both UC and CS have 3 unique users each who opened on both categories. The US combination has yielded much better result with total of 9 unique users who showed interest in both categories. There are also 4 unique subscribers who showed interest in all three mentioned categories. Those four users could be identified as the most potential customers and they should be on top of the CRM list for further campaigns. Both complexity and security are important criterions for SaaS adoption and according to the complex behavior towards opened emails they have similar influence over the subscribers. In many cases due to limited resources and customers’ short promotional attention span, marketers might have only a single opportunity to reach their customers. Drawing conclusions from the complex behavior a single focus on “Usability” or “Security” might yield better result than accenting on any of the other two categories. Those conclusions are based only on observing the latest drawn results, yet if considered in broader perspective the results might be different. Therefore in the next chapter all of the already discussed specifications will be summarized and generalized.

## 4.8 Overview of the results

In the previous chapter different aspects of the email marketing campaign regarding SaaS adoption have been discussed. It could be observed that according to the different results conclusion can be drawn about specific implication of any of the four SaaS adoption categories

and how they can be applied in permission based email marketing campaign. Yet still those conclusions have to be united in overall evaluation and conclusion about the perception of the four SaaS adoption categories and how successful they can be implied/promoted through an email campaign.

### 4.8.1 Usability

Usability is the first of the four SaaS adoption categories that were used in the study. This category summarizes all the functional benefits that a company can get from adopting the service. Some of the sub attributes that are included in this category are deployment time, scalability, fast access through the internet and quality improvement. It is difficult for all those capabilities to be represented in a single email message and still remain appealing to a receiver. Depending on the business area in which a company is, it can focus on one, few or all of the aspects of the main category.

In the current case study, company X decided to focus on short deployment time, fast access and process improvement as fundamentals of the first email stage of the permission-based marketing campaign which is focused on the Usability benefits of using the SaaS service they promote. From the executed marketing campaign “Usability” was the first stage and Company X has decided to select wider audience for this category compared to the following stages.

Table 22: *Summary of “Usability”*

	Usability Overall	Usability Male	Usability Female
Send emails	203	175	28
Bounced	15	14	1
Delivered	188	161	27
Opened	50	39	11
Clicked	6	4	2
Open Rate	24.6%	22.3%	39.3%
Click Rate	3%	2.3%	7.1%

Looking from the top of the table it can be seen that the total emails sent is slightly more than 200 and the Bounce Rate is relatively low with only 15 emails not reaching their destination. It can't be unnoticed that out of the 15 bounced emails 14 were from male users. The hard bounced emails are only 2 so for the ease of analyzing the results they will be ignored. One conclusion that can be drawn here is that male subscribers tend to have higher Bounce Rate compared to female subscribers. On first look this knowledge might not be sufficient, but when designing a SaaS campaign and planning to promote it over email with specific target over male or female subscribers might result in significant increase in the number of delivered emails, which will automatically increase the chance for higher Open Rate and CTR.

Another point of interest is the "Opened Emails" and "Open Rate". In general this indicator is in good volume, even better than the average for the business sector (Mailchimp.com 2016). With 50 opened email or 24.6% of all sent messages the result is more than impressive. It can be drawn from here that the functional benefits of the promoted SaaS project has triggered the respondents' interest towards the product and move it to the next stage. If we can accept that giving permission to receive a promotional message is the first and most basic stage of showing interest and some sort of commitment towards a company or product, the second stage is opening an email, followed by clicking on some of the links. But it is a bit tricky to distinct between the second and third stage.

When comparing the difference in both genders regarding the Open Rate it becomes obvious that female subscribers are far more willing to open an email regarding the functional benefits of a SaaS product. In absolute numbers the male subscribers are exceeding but when examined in terms of percentage the females have twice the Open Rate. And if the Bounce Rate might be in a sense "out of reach" the supremacy of females' tendency to open email regarding Usability benefits of using SaaS services could and should be used from marketers to improve the results of their campaign efforts.

On the downside of "Usability" category is the low CTR. Being presented to the widest audience of all four stages, having high Open Rate and being the first message sent makes the 3% of CTR is rather a letdown. The result by itself is not unacceptable, considering the average for the business area, being slightly over 2% (mailchimp.com 2016). Yet still being average shouldn't be satisfying, after all it is a new product and this is the first, followed by more email



messages and as it was pointed out earlier the attention of customers tend to decrease with time. When observing the difference between genders, again an advantage should be given to female subscribers with 7.1% of CTR compared to 2.8% CTR scored by male subscribers.

To summarize the “Usability” category of SaaS adoption criterion is the most compelling category of all in terms of Open Rate. Apparently Company X’s subscribers are highly interested in that aspect with  $\frac{1}{4}$  of them opening this promotional message. In terms of CTR the results are average with 3% of all subscribers clicking on a link inside the email. The high Open Rate can be used from marketers to send more detailed messages and rely on the impressions from opening the email more than relying on clicks. Another note about “Usability” is that female subscribers find this category more interesting compared to how much males do. This marketing insight can be from much value in designing future marketing and CRM strategies.

#### 4.8.2 Complexity

Complexity is the second group of characteristics that are used to identify the SaaS adoption criterions. While “Usability” has been concerned with the functional benefits of a SaaS product, “Complexity” is more focused on customer’s point of view about how fast the service is understood and how easy to use it is perceived to be. Some of the sub-categories included here are interface accessibility, ease of use and partly the SaaS architecture in general, since the whole SaaS concept might be difficult to be grasped by unfamiliar adopters. The easier it is to be used the higher the chances for adoptions are. In contrast to “Usability”, this category is seen as an obstacle in SaaS adoption and therefore the approach and content used in email marketing campaign, or in any other type of communication should be different, in that matter.

It was already pointed that Company X had its own undisclosed criterions on selecting which email respondents to include in the email lists for different categories. Therefore the sample used for the second stage of the campaign, which is “Complexity” is significantly smaller than the one used during the first stage. In total, only 94 subscribers have been included. A plausible explanation could be inferred considering the nature of the category and the fact that Company X is targeting B2B customers. It is perceived that B2B companies should be better familiarized with cloud computing environment and architecture.

Table 23: *Summary of “Complexity”*

	Complexity Overall	Complexity Male	Complexity Female
Sent emails	94	79	15
Bounced	20	18	2
Delivered	74	61	13
Opened	20	17	3
Clicked	4	4	0
Open Rate	21.3% (27%)	21.5% (27.9%)	13.3% (23.1%)
Click Rate	4.3% (5.4%)	5.1% (6.6%)	0

Unfortunately, for the second stage of the campaign the Bounce Rate has increased, despite the reduction of the list of respondents. From 94 sent emails only 74 were delivered which makes 20 bounced emails and this is more than 20%. A Bounce Rate of this magnitude is undesirable and it is likely to disturb and influence the campaign itself and its KPIs. What is striking as well is the strong contrast between the Bounce Rate among males and females. In absolute numbers the difference is substantial, which is due to the small number of female respondents. While looking at bounce ratio, which measures the difference in percentage relation, it can be seen that actually the Bounce Rate among male subscribers is almost double the Bounce Rate at females. This even further strengthens the theory that male subscribers yield much higher Bounce Rate.

The Open Rate for the “Complexity” is also around the average for the industry (Mailchimp.com 2016), which is around 22%. Yet if this indicator is calculated in relation to delivered and not sent emails, the Open Rate can vary notably, especially if the Bounce Rate is high. This is exactly the case with the “Complexity” stage, where the Bounce Rate is more than 20%. Both Open Rate and CTR calculated in relation to delivered emails can be seen in brackets on the table above. The level of CTR is more than satisfactory with 4.3% (5.4%). It can be inferred from here that the “Complexity” as a group of factors for adopting SaaS is perceived to be slightly more important than usability and subscribers are more willing to look for additional information and proceed further into the acquisition process. Another important controversy is that male subscribers are far more interested in this stage than their female colleagues. Of course it is difficult to be misled in the conclusions when such a small

sample is used, but even so, the contrast in the behavior between the two genders is quite apparent.

In conclusion the “Complexity” is also considered to be an important SaaS adoption criterion while email marketing is used. Moreover, if the Bounce Rate is neglected, “Complexity” is the most opened email of all, which means that if company X focuses on promoting only this aspect of the product it has the potential to attract the attention of more customers than if they focus on any of the other three categories. In addition it should be included here that the main audience for “Complexity” attribute are males. This should help marketers to focus and segment their strategies even further.

### 4.8.3 Price

This group of attributes is concerned with the financial benefits of using SaaS products and in most cases this is presented as cost reduction opportunity originated from the low hardware and software requirement, almost non upfront investment and “pay as you go” price model. Yet not always low service cost is regarded as a positive aspect, especially when clients are highly concerned about the security and privacy issues, in which case the low service cost is associated with low quality of the service and high level of insecurity.

In the case of Company X the “Price” category and more precisely the cost reduction should be entirely perceived by customers in a positive aspect since the information that Company X will be handling in through its SaaS product is not considered to be highly sensitive or related to a core business process. Moreover, company X is working with small to medium enterprises and this type of companies is usually the one that benefit most of the cost reduction opportunities presented from adopting SaaS services.

*Table 24: Summary of “Price”*

	Price Overall	Price Male	Price Female
Sent emails	115	77	38
Bounced	36	25	11
Delivered	79	52	27
Opened	17	11	6
Clicked	6	3	3
Open Rate	14.8% (21.5%)	14.3% (21.2%)	15.8% (22.2%)
Click Rate	5.2% (7.6%)	3.9% (5.8%)	7.9% (11.1%)

Here it can be seen that Company X has increased the number of subscribers included in the email list for the third stage of the campaign, unfortunately the Bounce Rate has also been increased and at this stage it reaches its highest level. From 115 sent emails only 79 were successfully delivered, which means that 36 of the emails bounced. This means more than 30% reduction in the potential audience. Again, controlling the Bounce Rate is not entirely in the hands of the marketers but what they can do is clean the email list and minimize the bounce. In contrast to the first and second stage of the campaign the Bounce Rate is equally distributed between the two genders.

Looking further on the same table, an interesting contradiction can be observed. While in the theory the “Price” is considered one of the greatest advantages of SaaS, the results from the case study are showing the opposite. With Open Rate of only 15% the “Price” category is on third place being behind “Usability” and “Complexity”. One possible reason could be the high Bounce Rate, but even undelivered email are removed from the equation, “Price” is still on third place. In addition, as already mentioned several times, the attention span of subscribers tend to decrease with time and this being already the third email that subscribers receive might demotivate them in some extent. Also it could be possible that some of the subscribers could have acquired information about “Price” incentives from other sources, registering the fact that two email campaigns have already been sent previous to that point.

What marketers should really focus here is the CTR. The number of unique clicks is astonishing, even for the small number of subscribers included in the email list. With 5.2% of CTR, this is the most successful stage of all four. If the undelivered emails are removed from the equation, the results are even more remarkable. From all recipients, who received the

promotional message, 7.6% requested more information under the form of clicking on an external link. The difference between genders in that dimension is also noticeable. The females clicked twice more often on links, compared to the male audience, and yet both groups have almost equal Open Rate.

As a result of the relative low Open Rate and high CTR, an interesting relation can be observed. Every second opened email resulted in a click. This ratio is the highest for the whole campaign. The “Price” stage is the opposite to the “Usability” stage, where the Open Rate is high and the CTR is low, while in “Price” stage the Open Rate is relatively low and the CTR is higher than anticipated. Both of the stages can be considered a success depending on the marketing strategy and target, set at the beginning of the campaign. While most email marketing campaigns aim to have high CTR, others desire to have high Open Rate. If the strategy is to increase the popularity or brand image, high Open Rate might be exactly what marketers are looking for.

To summarize, against all expectations and theory the “Price” stage didn’t attract as many attention as it was anticipated and it is the third most opened email. On the other hand, the high CTR shows that despite the amount of people who opened their emails, their interest is strong and they are willing to acquire additional information and get further involved with the product. It should be mentioned as well that the respondents interested in the “Price” stage didn’t show any traceable interest for any of the other three SaaS adoption categories. The statement also stands the other way around. This is interesting connection and it should be studied further.

#### **4.8.4 Security and Quality assurance**

All over the literature the security issues are marked as the greatest concern and main setback for SaaS adoption. It is easy to see why this is so. First of all the company must handle private information to a third party company and secondly this data is stored on a cloud and theoretically it is possible to be hacked, damaged or lost. In addition to that on the same category the quality assurance has been added. In brief, the quality assurance represents customers’ concerns that the cloud service might not perform as promised and due to underperformance some of the working processes will be interrupted. This concern is even further multiplied if the outsourced service is closely related to a core process.

In the current case of Company X the “Security” stage has been left for last. First, because it is a deterrent of SaaS adoption and the marketers in the company didn’t want to address this issue before explaining the other three categories. The second reason is that in order to understand fully the concept behind security and quality assurance the whole concept behind cloud and SaaS application has to be comprehended and presenting the other three stages before that should enhance the customers understanding about cloud computing services.

Table 25: *Summary of “Security”*

	Security Overall	Security Male	Security Female
Send emails	184	144	40
Bounced	9	9	0
Delivered	175	135	40
Opened	26	20	6
Clicked	1	1	0
Open Rate	14.1% (14.9%)	13.9% (14.8%)	15%
Click Rate	0.5% (0.6%)	0.7% (0.7%)	0

The amount of potential email receivers picked from Company X for the last stage of the campaign has increased substantially and it is almost equal to the number used in the first stage. A total of 184 emails have been sent and only 9 bounced which is the best result for the whole campaign. It might be inferred from there that the company was able to clean their database, judging from the Bounce Rate alone. What is interesting here is the low Open Rate. Only 14% of all subscribers opened the email regarding the “Security” cloud adoption capabilities, which is far below the average for the industry of around 22%. What is even further intriguing is that the CTR is at remarkably low level with only one clicked email of all 175 delivered, which yields a CTR level of 0.5%, strangely low compared to the average for the campaign (which is relatively impressive even for bigger companies) and the average for the industry. It will not be far from the truth that some marketers consider such a result as a failure. There are two possible explanation about this occurrence:

One possible reason could be the progress that has been made in the security mechanisms behind the SaaS and cloud computing in general. Most of the literature used is from 2013, if not earlier. Considering the fast pace of software development, such an explanation is a plausible one.

The second explanation could be the service itself. The promoted SaaS product is engaged improving or even substituting a process which is not core for the company. Furthermore, the data that is used is not highly sensitive and a possible breakage will not be crucial for the company. Still this may not be a main reason for the low interest since even if the information is not essential and it is not related to a core process, a potential hack or a breakage might lead to a larger problem, which apart from fines, could result in further damaging the image and brand name of the company.

The third possibility has already been mentioned and that is the short customers' attention span. The "Security" stage is the last of the four and the email about it has been sent only several days after the previous stage. Therefore it is not unreasonable to presume that the willingness of subscribers to open yet another email regarding the same topic might diminish. It is not wrong to assume the possibility that with the previous stages, the most interested subscribers could have used other communication channels to access the same content that is presented to them through the email message.

Overall the subscribers' perception about "Security" factors as a SaaS adoption factor has been lower than initially expected with low but still acceptable Open Rate and disappointing CTR. There could be many reasons, apart from subscribers' perception about "Security" that could have led to such result and some of them have been discussed, but compared to the previous 3 stages of the email marketing campaign, even a greater shift in environmental conditions can't explain the drastic change in subscribers' behavior. Therefore, it could be concluded that "Security and Quality Assurance" were not as decisive about SaaS adoption as it was previously believed.

## **4.9 Relation to earlier literature**

The result of the empirical part are not entirely surprising. In general the "Usability", or the group of functional benefits that will be received from adopting SaaS application is one of two categories to with highest level of interest. As it was discussed previously, there are two main

measurements that were crucial in evaluating the degree of perception – Open Rate and Click Rate, where Open Rate is considered to be a sign of some general interest into the adoption category, Click Rates were identified as stronger and in-deep interest and dedicated attention. In comparison a click should be regarded as a higher level of positive perception towards any current adoption criteria. From the two measurements “Usability” scores high in Open Rate, which can be classified as sufficient level of interest. In earlier studies the factors related to “Usability” were ranked among one most the most important. A similar results can be observed after the empirical analysis. On the other hand the low Click Rate is a bit disappointing and in a contrast with what was previously expected and factors like “IS deployment time” and “Quality improvement” should have presented a more tempting aspects for in-deep or stronger perception rate.

The results for the second adoption category “Complexity” are rather surprising when they are compared to previous expectations build on the base of earlier literature. Adoption factors like “user interface” and “easy to install and upgrade”, are usually not among the top factors that were listed in previous studies. It is important to point that in most cases SaaS applications are used from non-IT personal and therefore the intuitiveness of the interface and the ease of use could be crucial for the quick implementation and reaching the full potential of the service. One possible explanation for the mismatch of expectations could be that the overall technological environment of the business sector from which all studied subscribers are is not highly technical which might result in higher requirement towards the “Complexity” category. If the assumption of low overall capabilities of the sector where the application has been applied is accepted, the results from the study are aligning with the earlier studies in placing “Complexity as one of the most crucial, if not the most influential one.

The situation with the “Price” category is on the opposite side of the specter from “Complexity” in terms of relation with earlier literature. In contrast with the expectations, the “Price” category scores low on the Open Rate. In previous studies most of the factors which are included in this category, like reducing the cost, IT personal and no long term subscription, are among the most influential driving forces behind SaaS adoption. High degree of the overall popularity around cloud computing and SaaS is, along important functional benefits, that the service is available without the need of initial investment. Still for the astonishment of the



author, this adoption category scores poorly with the Open Rate. Being on the third position with significant difference to the second place gives a room for discussion. CTR is an evidence of high interest but it is limited to a low percentage of the subscribers. Comparing to earlier studies it can be concluded that the overall acceptance of the “Price” category is not as high as it was predicted from the literature, on the other hand the lower number of subscribers that perceive the “Price” adoption category as important are far more passionate and highly influenced by it, which is how it was described in previous studies.

The matter with security and quality assurance should be addressed with great care. Both of those adoption factors are restraining the process of diffusion of innovations. One of the greatest concerns is that the SaaS provider will not be able to guarantee the integrity of the data and an eventual breach into the security will relate negative on the reputation and it might jeopardy the company’s existence as a whole. On the other hand, there is the quality assurance. When using SaaS, a company trusts the process to the service provider and it is 100% dependable on it for the service performance. Service unavailability, even for a short period of time, might result in harming the company’s performance, especially if the outsourced process is a core one. Yet still, even with the preposition of everything up mentioned about “Security” category, the email subscribers behave opposite to what was expected. While “Security” was mentioned as one of the most influential factors in previous literature, in the email campaign this was the least preferred category. In some more recent studies the “Security” was degraded in importance due to the solid investment in security from the service providers in the last few years.

## 5. Conclusion

In this section the main purpose and results of this paper will be summarized. The research question will be answered and the results. The limitation of the research will be presented as well as recommendation and suggestions for future research ideas.

### 5.1 Research summary

The main purpose of this thesis is to improve the adoption process of SaaS application from supplier's perspective when introducing new product to the market and the main focus is to help them select which adoption category to use. There isn't a widely accepted precise definition of SaaS, which includes itself a broad range of paradigms, practices and business model. Therefore some narrowing of the understanding of SaaS were presented in the beginning of the study. The logical development of the study started with defining the main SaaS adoption criteria, then grouping them into several categories. With the help of a case company an email permission based marketing was used to present the pre-defined adoption categories to a group of business clients. For reaching the desirable results from this study three main research questions were set in the beginning:

RQ1: Which are the key factors for SaaS specification?

RQ2: How can the adoption factors be grouped into several categories?

RQ3: What will be the best email marketing strategy to promote them to email subscribers?

The first question is dedicated in defining and explaining the SaaS concept, which will be used as a base on which the next part will be built on. Some of the main benefits of SaaS were identified like no initial investment, short term commitment, scalability, easy access through the internet, agility on demand, wide range of application, etc. The study has furtherly shown that SaaS is far more used and applied compared to the other two types of cloud computing PaaS and IaaS.

One of the biggest challenges that had to be tackled in this paper was how to group the adoption factors into categories that will later be used as base for the email marketing campaign. For that purpose two fundamental frameworks have been used. The first one is TOE, which has a broad view over the adoption process, including technological, organizational and environmental

characteristics for evaluation the innovation adoption. The main characteristics that were used are from the technological environment of the TOE framework. The DOI framework contributed additionally. The DOI is mainly known for the adopter categorization on the basis of innovativeness, but the framework goes much more further and deeper into analyzing the adoption process and what was found extremely useful for this paper – the explanation of the rate of adoption and more precisely the perceived attributes of innovations. With the two frameworks in mind the already identified adoption factors were grouped into four categories – Usability, Complexity, Price and Security.

The concept of permission based marketing is different from the other types of direct marketing, which is considered to be far more efficient than “traditional” interruption marketing. The biggest advantage of permission-based marketing is that customers have agreed on receiving promotional messages and suggest that they have some degree of interest towards the marketed product. Email permission-based marketing has been picked because the digital environment and email specifications. The cost for sending a large number of email messages is close to zero, especially if it is compared to traditional marketing. The email itself gives the opportunity for targeting and personalization of the promotional message. Email also enables the promotion receiver easily to communicate back the promotion sender. Email marketing is also fast and the result of an email campaign can be easily observed.

For the empirical part of the study a case company was introduced. A quantitative observation technique was used for data collection and analysis. Permission email marketing campaign was conducted on four stages, with each stage focused on one of the four SaaS adoption categories. The result of the research were presented in chapter 4.8 where in addition the results were compared to the earlier literature.

## 5.2 Limitation of the study

There are some limitations of this study that need to be pointed out. From the TOE framework, little attention has been given to the environmental aspect. One reason for this was the fact that the companies that were included in the empirical were all from the same business sector and with more or less similar size. Moreover they were all from the UK, which means that the government legislations which were applied were the same for everyone. Therefore, the

environmental side of the framework was not regarded as vital for the diversity in the studied companies' rate of adoption.

Another limitation of the study is the relatively small number of respondents included in the empirical part. With a little more than 200 respondents included the conclusions, despite how interesting they are, they might not be relied entirely as a base for successful online marketing campaign. In addition, because only one case company was used in the study and from one geographical location, and therefore the scope of the study was rather narrowed.

In the empirical part an assumption was made that if a subscriber opens an email, then some positive perception about this adoption category is indicated and if a link inside an email is clicked upon, a stronger interest towards that category is demonstrated. The conclusion of the study was built on this assumption, which makes the results vague.

### **5.3 Suggestion for Further Research**

SaaS and cloud computing are still developing and it can be considered that they are still in the stage of infancy. The scope of the current study is in some extent narrowed and further researches should reevaluate the spectrum and scope used for further research. Future studies should use more precise empirical measurements to evaluate the adoption process. By itself, studying the intention of a company or individual to adopt any kind of technology is relative.

Desirable conditions for evaluating the adoption might be the opportunity to observe the use of a SaaS and alongside with that apply the adoption categories and follow if the performance will be influenced in some manner by each sent email and in what direction. It might be argued that companies that have just started to use a certain technology might be more understandable about the adoption process and find the adoption categories more applicable, when they can relate them to the real business process that they are using.

Further studies should try to explore the perception of adoption SaaS in a more diverse environment, for example studying and comparing the adoption process of companies in different background and business sectors. Further in that line of thinking, even an international approach can be applied, with which the exact differences between the legislation of two or more countries might be observed.

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