

University of Economics, Prague

# **Bachelor's Thesis**

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Title of the Bachelor's Thesis:

# Marketing Analysis of Software sales in the Business to Government Market

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## **D e c l a r a t i o n   o f   A u t h e n t i c i t y**

I hereby declare that the Bachelor's Thesis presented herein is my own work, or fully and specifically acknowledged wherever adapted from other sources. This work has not been published or submitted elsewhere for the requirement of a degree programme.

Prague, May 10, 2017

Signature

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**Title of the Bachelor's Thesis:**

Marketing Analysis of Software Sales in the Business to Government Market

**Abstract:**

The objective of this thesis is to analyse the marketing practices behind software sales in the business to government market using an example of a Czech-Slovak software company, Atbon. a.s.. The thesis also aims to reduce the current gap in the academic and practitioner's research in this area. The theoretical part of the paper covers the characteristics of different types of markets, features of the software industry, and explains the fundamentals of marketing strategy, marketing tactics and marketing tools which will be used in the analysis. The practical part then examines the marketing performance of Atbon when launching their data redaction software in the B2G market. Based on the findings of this analysis, conclusion and suggestions for improvement are made.

**Key words:**

*B2G marketing, business marketing, software sales marketing, business to government, marketing, software products*

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## INTRODUCTION

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### 1.1 PROBLEM STATEMENT

*What is the issue/context?*

The role of marketing has an increasingly greater impact on creating and sustaining a firm's competitive position in the market as well as on its accounting and financial performance (Morgan, 2011). According to the study by the marketing agency B-inside, in 2014 the Czech B2B businesses which included marketing as an integral part of their corporate strategy, have seen 9,9% growth in turnover whereas the ones which have not done so, have grown only by 4,3% (B-inside, 2015). As both practitioner and academic research suggest, the importance of marketing in business performance is undisputable.

Despite the abundance of literature regarding the marketing planning and strategy on the B2B market<sup>1</sup>, there is an academic neglect concerning its very distinct subfield, which is marketing goods and services to the public bodies (Shenane & Sherman, n.d.). The Czech government spends more than 40% of the GDP on the purchase of goods and services and the B2G<sup>2</sup> market thus forms a substantial part of the Czech economy (OECD, 2015). For these reasons, additional research and studies regarding the business-to-government marketing would be greatly beneficial.

The European software industry has experienced a rapid growth over the past decades, *"with market revenues over €200 billion and growth rates of between 6% and 8%, software is the largest and the fastest- growing segment of the information and communication technologies (ICT) market"* (European Commission, 2009, p. iv). Software businesses play an instrumental role in the modern digital economy. Their increasing presence on the B2G market reflects a trend towards the E-government in the Czech republic (Ministry of the Interior of the Czech republic, n.d.). Due to the derived demand for advances in technology in the public sector, the software industry potential on the B2G market is high.

The specific nature of the B2G market with complicated regulations and pro-

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<sup>1</sup> Business to business market

<sup>2</sup> Business to government market



curement laws and their potential impact on the selection process, which have seemingly nothing to do with the product, can be, however, very frustrating to business marketers (Vitale & Giglierano, 2012). Furthermore, the lack of information regarding the functioning of public tenders as well as the missing body of research and knowledge of best practices for marketing software products and services to the government are other discouraging factors for entering the B2G market for software products.

## 1.2 SCOPE OF THE PROBLEM

*Who are the stakeholders? How will they be affected?*

The question of how to market a software product to the public body is very distinct and complex and affects a number of stakeholders involved. The first group are the software businesses; many ICT companies who would be potentially able to provide the demanded product and service for a desirable price may feel discouraged from entering the business to government market due to the lack of knowledge and the lengthy and vague process of the public tenders. With a more transparent and better - informed environment around public tenders as well as better knowledge and awareness of the best practices on the B2G market, the barriers to entry for newcomers would be substantially lower.

This situation would also benefit the government as they would have a larger number of qualified software providers to choose from and the chance of selecting the most suitable solution for their needs would therefore increase. The general public is also involved since they are both the payers and, in many cases, the end users. The public procurement purchases are funded largely from the taxpayers' pockets (Government of the Czech republic, 2009) and it is therefore in their interest that the most competent and cost effective company is selected during the public procedure.

The presence of software companies in the B2G market is also essential for the development of an E-government in the Czech republic, as *"information and communication technologies (ICTs) were recognized to have tremendous administrative "potential" (Yildiz, 2007, p. 650). As Brown (2003) suggests, E-government eases "information sharing, service delivery and operations of state agencies and institutions to individuals and corporate entities as well as in between the branches of the government itself" (in Paunović et al., n.d., p. 3). Progress in the digitalization of the public sector would therefore benefit the citizens, businesses, public bodies and the economy as a whole by easing the bureaucratic burden, reducing costs and fostering innovation and transparency (Ajilian & Crameri, 2011).*

### 1.3 RESEARCH QUESTION

*What is the thesis purpose?*

The purpose of this thesis is to analyse the marketing side of software sales in the business to government market and to reduce the current gap in the academic and practitioner's research on this topic. The study will be divided into a theoretical and practical part. Firstly the fundamental marketing theory will be laid out and general characteristics and requirements for marketing a software product and service on the B2G market will be discussed. Secondly, the study will analyse the marketing performance of the Czech software company Atbon, a.s., which operates in the B2G market. It will particularly focus on how the company proceeded in marketing their recently developed software product to the government. Based on the analysis a critical evaluation and suggestions for improvement will be proposed at the end.

### 1.4 RELEVANCE OF THE PAPER

*Why is the topic relevant? Who can benefit from this study?*

Advancements in technology became an integral part of our modern era and technological products and services are vastly consumed by both private and public entities. The ICT industry has increased dramatically over years and nowadays plays an important role for the Czech economy, *"exports of ICT goods has grown 15 times over the past 10 years to 360 billion CZK in 2008, which contributes to the total export by nearly 15% and makes ICT a very important export commodity"* (Czech ICT Alliance, n.d., paragraph 3). Furthermore the Czech republic has a *"strong inflow of high-value-added projects of the world's top ICT companies and is fuelled by the country's tradition of excellence in technical fields"*, which is widely recognised (Czech Invest, n.d., paragraph 1). The potential of the ICT industry in the Czech republic is therefore extremely high and the on-going trend towards E-government creates new market possibilities for the Czech software companies.

The results of this research should be influential mainly for software companies who are deciding to enter the B2G market. Furthermore, since both software sales and the B2G market possess very specific marketing techniques, the outcomes of this analysis could be a source of information for students studying the field of marketing. The paper also aims to contribute to the discussion about the best practices for selling software to the government and it is expected it could

promote further academic research concerning this topic to reduce the current information gap.

## 1.5 STRUCTURE OF THE PAPER

### *What's next?*

The following part of this paper will discuss the marketing theory to establish the grounds for the practical part of the analysis. Firstly the B2C and B2B marketing will be analysed and the specifics of B2G and software sales marketing will be discussed. Then the basic marketing concepts such as marketing strategy, tactics and marketing analytical tools will be explained. The second part of the paper body will analyse the marketing performance of a Czech software company Atbon, a.s. when selling their software product to the government. First the company's characteristics will be introduced, the new product offered for data redaction will be described and chosen marketing tools will be used to conduct detailed analysis of the company and their market situation. The concluding part of the work will address the research question and suggest further recommendations for marketing performance of the software company. Finally the implications for theory and practice will be discussed and the paper limitations will be presented. The used resources and the lists of tables and figures used for completing the work will be presented at the very end of the paper.

## THEORETICAL PART

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The following paragraphs will discuss the fundamental parts of the marketing theory and provide basic characteristics and some best practises in the B2G and software markets. In order to address the explicit purpose of this study, the marketing theory presented will always attempt to make special connections to the B2B or, more specifically, the B2G markets, which in many aspects differ from the traditional B2C segments.

### 2.1 MARKETING THEORY

The facet of marketing has evolved over time; from the product-centric approach during the industrial age to the customer-oriented information era. As Kotler et al (2010) suggest we are now facing the values-driven stage of marketing, the so-called Marketing 3.0. In today's world of confusion, customers search *"not only for functional and emotional fulfilment but also human spirit fulfilment"* and seek companies, which address their needs regarding the *"social, economic, and environmental justice in their mission, vision and values"* (Kotler, Kartajaya, Setiawan, 2010, p. 4). The importance of "value" is further reflected in today's definition of marketing as *"the process by which companies create value for customers and build strong customer relationships in order to capture value from customers in return"* (Kotler & Armstrong, 2012, p. 5). According to Fill & Fill (2005) in order to be successful, firms need to be contextually market sensitive, understand and meet their customer needs and do so in a way that provides value to the customer as well as support the organisational goals. Furthermore, the marketing techniques should also be adjusted to the type of markets and entities we want to sell our products to. As Vitale & Giglierano (2012, p. 4) suggest in business markets, firms face *"different types of challenges and opportunities than those presented by consumer markets"* and the *"concepts of relationships, value, and buyer decision making function"* also vary.

#### 2.1.1 A Comparison of B2B and B2C marketing

The most basic typology distinguishes between 2 types of markets: the business-to-consumer and the business-to-business marketing. In B2C marketing the buyers of goods or services are also the consumers of the product, whereas in busi-

ness markets the individual organisations buy the goods or services in order to "make new products or to enable the production or added value process to operate successfully" (Fill & Fill, 2005, p. 18). The very essence of business marketing thus lies in "combining capabilities of the supplier with the desired outcomes of the customer to create value for the "customer's customer" and, hence, for both organizations" (Vitale & Giglierano, 2012, p. 5). Table 1 summarizes the main differences between the consumers and business marketing.

**Table 1: Main differences between B2B and B2C marketing**

Factor	B2B	B2C
Market structure	<ul style="list-style-type: none"> <li>•Geographically concentrated</li> <li>•Fewer buyers</li> <li>•Oligopolistic competition</li> </ul>	<ul style="list-style-type: none"> <li>•Geographically dispersed</li> <li>•Many buyers (mass market)</li> <li>•Monopolistic competition</li> </ul>
Nature of products/service	<ul style="list-style-type: none"> <li>•Standardized range</li> <li>•Service, delivery and availability not so important</li> <li>•Large in value and volume</li> </ul>	<ul style="list-style-type: none"> <li>•Customized packages</li> <li>•Service, delivery and availability crucial</li> <li>•Small quantities</li> </ul>
Buyer behaviour	<ul style="list-style-type: none"> <li>•Professional purchasing personnel</li> <li>•Task motive predominate</li> </ul>	<ul style="list-style-type: none"> <li>•Individual purchasing</li> <li>•Social/psychological motives</li> </ul>
Decision making	<ul style="list-style-type: none"> <li>•Large number of decisions makers</li> <li>•Complex and long</li> </ul>	<ul style="list-style-type: none"> <li>•Small number of decision makers</li> <li>•Short and simple</li> </ul>
Consequence of poor purchase	<ul style="list-style-type: none"> <li>•Potentially critical</li> </ul>	<ul style="list-style-type: none"> <li>•Limited</li> </ul>
Buyer-seller relationship	<ul style="list-style-type: none"> <li>•Interpersonal relationships between buyers and sellers</li> <li>•Significant information exchanged</li> <li>•Long-term, stable</li> </ul>	<ul style="list-style-type: none"> <li>•Non-personal relationships</li> <li>•Little information exchanged</li> <li>•Short term, changing</li> </ul>
Supplier switching costs	<ul style="list-style-type: none"> <li>•Large</li> </ul>	<ul style="list-style-type: none"> <li>•Limited</li> </ul>
Channel configuration	<ul style="list-style-type: none"> <li>•Simple, short, more direct</li> </ul>	<ul style="list-style-type: none"> <li>•Complex, long, multiple relationships, indirect</li> </ul>
Promotion	<ul style="list-style-type: none"> <li>•Personal selling</li> <li>•Economic/utilitarian benefits</li> </ul>	<ul style="list-style-type: none"> <li>•Advertising</li> <li>•Psychological benefits</li> </ul>
Price	<ul style="list-style-type: none"> <li>•Competitive bidding or complex purchasing process</li> </ul>	<ul style="list-style-type: none"> <li>•List of predetermined prices</li> </ul>
Demand	<ul style="list-style-type: none"> <li>•Derived, inelastic</li> <li>•Volatile, Discontinuous</li> </ul>	<ul style="list-style-type: none"> <li>•Direct, elastic</li> <li>•Less volatile</li> </ul>

Source: Vitale & Giglierano (2012); Fill & Fill (2005)

### Business demand

An important concept in the B2B marketing is the nature of demand, which is derived, volatile and inelastic. Demand in B2B is *derived*, which means it "*ultimately comes from (derives from) the demand for consumer goods*" (Kotler & Armstrong, 2012, p. 167). Business demand is thus dependent on the final consumer demand and is faced by the chain of suppliers and producers, which contribute to the creation of the final product. Because of its derived nature, the business demand is leveraged – small changes in consumer demand result in greater variations in the business demand and can cause the so-called *bullwhip effect*<sup>1</sup>.

The *volatility* of business demand is caused by the logistics-oriented effects as well as the prevailing economic conditions and business cycles, which can have a tremendous effect on all the producers within the supply chain (Vitale & Giglierano, 2012).

Business demand is typically *inelastic* in the short run, which means the change in quantity demanded is less than proportionate to the price change. Once a producer incorporates a differentiated product into processes, any unforeseen price increases must be absorbed until the producer decides to revise or redesign the product. If the producer decides to cease production due to the higher production costs, he might lose its current customers who are expecting delivery of the product, and acquiring new customers is very likely to be even more costly. The main reason behind the price inelasticity of demand are thus the high switching costs and producer's reluctance to discontinue production in order not alienate its current customers (Fill & Fill, 2005).

### The decision making process

As mentioned in the table above the buyer's decision-making in B2B is much more complex and lengthy compared to the B2C market. In large organisations the purchasing decision is usually made by so-called buying centres, which are groups of people within the organizations, with different specialties, who are familiar with the respective organisational needs and have expertise in purchasing (Saylor Academy, n.d.). Nevertheless, a buying centre is not one central location, where all buying decisions are made, but rather a term to encompass all the various independently operations parts of an organization (finance, production, engineering, etc.), which influence the selection of the best solution for business needs. The task of a good business marketer is thus to simultaneously, yet in-

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<sup>1</sup> Refers to the "*wide swings in demand experienced by upstream suppliers resulting from the leveraged impact of changes in demand*" (Vitale & Giglierano, 2012, p. 11).

dividually influence all the key stakeholder's by satisfying and meeting their unique professional and personal needs (Vitale & Giglierano, 2012).

**Table 2: Process Flow Model of the Buying Decision Process**

Process Flow Stage	Buying Decision Steps
Definition stage	✓ Problem Recognition
	✓ General need description
	✓ Product specification
Selection stage	✓ Supplier/source search
	✓ Proposal specification
	✓ Contract for suppliers
Deliver solution stage	✓ Make the transaction routine
End Game stage	✓ Evaluate performance
	✓ Resell the job

Source: Vitale & Giglierano, 2012 (p.66)

The process flow model above shows the respective stages the buying centre has to make in order to address their organisational needs. Firstly, the problem and the need are identified and the specific solution sought by the organisation is determined. This stage is essentially identification of "*a gap between the benefits and organization has now and the benefits it would like to have*" (Fill & Fill, 2005, p. 121). The product specification then attempts to generalise the need description, so that the differences between potential suppliers are lowered and it is easier to select from the competing proposals. Robinson, Faris & Wind (1967) further identify 3 main types of buying situation the organisations might face; *new buy*, where the problem is entirely new to decision makers and more information and time is required; *modified buy*, where the problem is somewhat similar to previous situations and medium effort is required, or *rebuy* which is a reorder of previously bought product.

In the second stage the buying centre actively seeks the supplier who can provide the organisation with the necessary product(s). This may be done through bid solicitation where the organization invites potential suppliers to bid, to offer proposals or to give quotations for the offer. The selection process in the B2G market is legislatively mandated and thus very specific and will be discussed in more detail in the following section. After the bid is issued and proposals are received, the buying centre evaluates both the specific solutions offered and the reputation of the supplying organisation. The buying centre should also take into account the price, delivery and service connected with the product and whether it is feasible to establish a long-term relationship with that supplier to

reduce potential switching costs. As Jackson (1985) suggests, organisations can buy the product from several different suppliers and thus maintain "*a range of multiple sources*" in order to spread the investment and lower the risks (in Fill & Fill, 2005, p. 124). Nevertheless, this strategy may not be too effective due to the forgone discounts for large volume sales. With the rising popularity of outsourcing, increasingly more organisations choose to cooperate with a smaller number or even a single supplier in order to build a long-term relationship and work mutually towards both organisational goals.

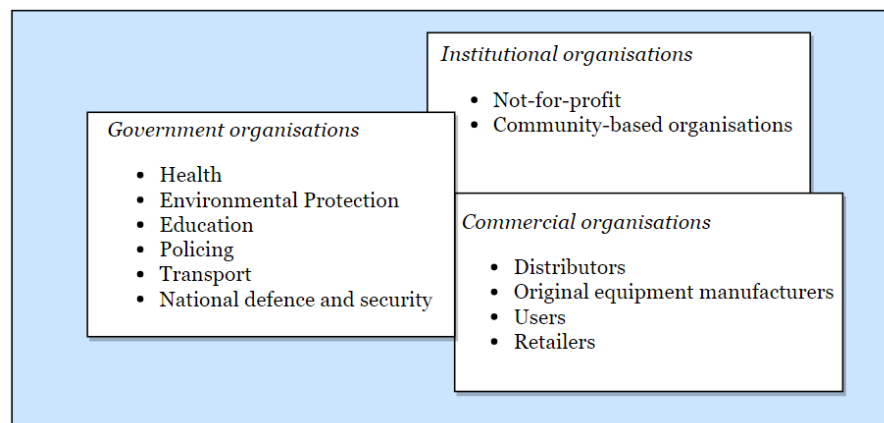
After the candidate is selected, the solution delivery begins. This process may take longer periods of time, especially if part of the solution are maintenance services, training, testing or the product requires high degree of customization and technical development. This stage involves "*merging the supplying logistics of the supplier with the consumption logistics of the customer*" and ends when the delivery is fulfilled and approved by the buying centre (Vitale & Giglierano, 2012, p. 71). If the implementation process encompassing synchronization of material planning, invoice routines, delivery times, etc. runs smoothly, the chance of further cooperation between the buyer and the supplier increases.

At the very last stage of the buying decision process, the supplier is evaluated against diverse criteria such as responsiveness to enquiries or timing of delivery and whether the solution helped to reach organisational goals. It is in this stage that the order is realized and the product price is paid. If the value received from the process was satisfactory, the company may choose to enter *rebuy* or acquire some additional or upgraded products via *modified buy*.

### **Organisational customers**

The customers in the B2B sector can be divided into 3 main groups according to their roles within marketing channels; these are commercial, government and institutional organisations. Marketing to the government organisations, or the B2G marketing, will be discussed in more detail in the following chapter.



**Fig. 1: Types of B2B organisational customers**

Source: Fill & Fill (2005, p.8)

### 2.1.2 Characteristics of B2G market

Business-to-government (B2G), often referred to as *public sector marketing*, is a derivative of B2B marketing and encompasses marketing products and services to government organisations at federal, state or local level (Nemat, 2011). As mentioned earlier, public institutions are responsible for huge volumes of business purchases, since areas such as health, education, environment, security, transport or technologies require large amounts of funding and suppliers (Fill & Fill, 2005). B2G marketing may also employ integrated marketing communications techniques such as strategic public relations, branding, marcom, advertising, and web-based communications (Nemat, 2011). The basic marketing principle to understand and satisfy customer's needs remains the same on B2G, however, in case of government purchasing, the various legislative rules, budget policies and political objectives must be also taken into account.

Furthermore, most of the large government projects involve a huge number of stakeholders, which may affect the decision making process. The businesses must be therefore careful to thoroughly "*examine what value is expected by the government customer and who/what the influencing factors will be*" (Vitale & Giglierano, 2012, p. 37). On B2G sellers should not be too product oriented and pay extra attention to the selection procedures and other factors beyond the product itself. Dacuan (2014) adds that it is absolutely essential that the government marketers are able to identify the key influencers. Sales teams often focus solely on creating connections with the top decision makers, who, however, never make decisions by themselves. Subjects such as "*congress, governors, mayors, policy makers, media, industry trade publications, civil society organizations, professional associations, and*

*trade associations can all have a voice in the purchasing decisions"* (Dacuan, 2014, The Circle of Influence).

#### 2.1.2.1 Public procurement

The government purchasing is in many ways different and more complex than the commercial one described above. It not only involves selecting the most suitable product for the most appropriate price, but also fulfilling the political, economic and social objectives and ensuring that the selection procedure itself will be in compliance with the law and no favoritism will take place. Furthermore meeting different types of goals at the same time can be very challenging for government and *"drive to meet efficiency targets might not accord with the need to satisfy political or social goals"* (Fill & Fill, 2005, p. 11). Government spending is under public scrutiny and some decisions regarding public projects take considerably long periods of time to make sure all stakeholders' interests have been taken into account. Moreover, government spending is supervised and constrained by the central government policy and its size may be subject to fluctuations in the economy or changing government objectives. Also, if allocated funds are not spent within prescribed period of time, any underspent cannot be retained for the next period, which may lead to great inefficiencies and even frustrations. The hierarchical structure of government institutions as well as the officials' accountability for the use of public money results in excess bureaucracy and more emphasis being placed *"on the procedure rather than the quality of the purchase itself"* (Fill & Fill, 2005, p. 12).

Since the 1st of October, 2016 public procurements in the Czech republic must follow the *Act No. 134/2016 Coll.*, on the procurement of public contracts which is a modernized and more flexible version of the previous act (Ministry of regional development, n.d.). Major principles of national regulation of public contracts and concessions in the Czech republic ensue from the Treaty establishing the European Community and from European Procurement Directives, specifically *"the principles of transparency, equal treatment, non-discrimination, mutual recognition and proportionality"* (Ministry of regional development, n.d., paragraph 1).

After candidates meet the mandatory and professional qualifications and their product has the technical specifications published in the initial tender documentation, they can proceed to the next stage of tender evaluation. Public authorities use different types of award criteria to select the winning candidate. They may use the lowest price criterion or the economic advantageousness, which encompasses several criteria with different weights (European Commission, 2017b).

During this process specific types of tender procedures are used according to the size of the tender or subject of the tender (supplies and services, construction works, defence products, etc.). The table below summarizes the 5 basic types of tender procedures and their main characteristics.

**Table 3: Types of Public Procedures**

The open procedure	<ul style="list-style-type: none"> <li>• Most common one</li> <li>• Any business allowed to submit a tender</li> </ul>
The restricted procedure	<ul style="list-style-type: none"> <li>• Only pre-selected businesses are invited to submit a tender (minimum 5)</li> </ul>
Negotiated procedure	<ul style="list-style-type: none"> <li>• At least 3 businesses are straight away invited to negotiate the terms of contract (tender submitted automatically)</li> <li>• Used for limited purposes (research, testing)</li> </ul>
Competitive dialogue	<ul style="list-style-type: none"> <li>• Used for complex contracts (large infrastructure projects)</li> <li>• At least 3 candidates must be invited to a dialogue, where the final technical, legal and economic aspects are defined</li> <li>• After the dialogue the candidates submit their final tenders</li> </ul>
Electronic auction	<ul style="list-style-type: none"> <li>• Authority makes a full initial evaluation of the tenders and only the admissible ones are allowed to take part in the auction</li> <li>• Candidates must see their ranking compared, but must not know their identity</li> </ul>

Source: European Commission (2017b)

### 2.1.3 Software product marketing

#### Marketing capabilities

The software and high tech industry is very distinct and dynamic and requires specific marketing techniques, which are different from selling common goods or services. New trends in technology (e.g. Internet of Things, Internet of Services, big data, etc.) are emerging at an incredibly fast pace which puts software companies under pressure and requires them to *"constantly secure and increase the competitive advantage by bringing new products and services to the market and gain what is called the "competitive innovation advantage"*" (Baaken 2010, as cited

in Shafi, 2013, p. 5). There is abundance of research and available knowledge regarding the rather technical areas of software development, delivery processes or quality control, which are certainly very relevant for the functioning of software organisations. Nevertheless, there is a substantial gap in the business side, i.e. how to actually sell that product software (Ruiter, 2010). This poses a great challenge for the software companies who might excel at developing technically advanced products, but lack the knowledge of how to market and deliver them to the customers.

**Table 4: Determinants of Innovation Marketing**

Critical success factors	Challenges	Reasons for failure
Communication of the added value, provable ROI	Finding use cases	Valley of death" - gap between research and market
Marketing strategy	Correct estimation of innovation potential	Ill-defined use for customer of poor presentation of it
Innovation must reflect customer demand	Sales strategy	Inaccurate estimation of market penetration
Customer integration	Knowledge transfer from vendor to customer	Not enough partner networks
Market research	Gaining the first adopter	Lack of sustainability
Explanation of hype topics to the customers	Low marketing budget	No well-considered business model
Short innovation cycles, agile development methods	Winning attention of potential customers	Wrong timing for market entrance
Market access	Customer integration	

Source: Shafi (2013, p.10)

Table 4 summarizes the key determinants of innovation marketing, which were concluded from the study of enterprises in the German Software Cluster. One of the biggest issues of the majority of software companies is that they are *product* rather than *customer oriented*; they often fail to clarify the hype topics and complex nature of the product to the customer and to clearly communicate the added value the product can bring them. The marketing message must be easy-to-understand in order to get the customer on their side. Moreover, companies should involve marketing already in the product development stage; early customer integration enables software developers to better understand current customer needs and requirements, which is critical for the eventual product success

(Narayanan 2001, in Shafi, 2013). This is particularly important for technology-push-oriented innovations, since when customers participate early in the software development, any potential purchase delays due to technological uncertainty and risk perception are less likely to occur. Software companies should therefore invest more into the market research of the customer base, as discussed above and also on the competitors' side. It is essential to regularly monitor rival's products and actions in order to direct the company's marketing plan and respond to new technology trends on the market. Brand management is also something that the majority of software company's should work on; new media such as Facebook, Twitter, Youtube can help them to reach wider audiences in a more entertaining and interactive way.

### Software Licence

The way in which software companies sell their products is also worthy of attention, since customers cannot just go and "physically" buy the software as a regular consumption good. Companies can protect their software products by obtaining a so-called copyright, which is a legal ownership of the intellectual property (Copyright, 2017). What the consumer buys is a so-called *software licence*, which grants him or her the permission to use one or more copies of the software without violating the copyright law.

There are various types of software licences, depending on the fees payment and terms under which users may use, redistribute or copy them, but the main types are *proprietary, free or open source software licence* (Rouse, 2014b). The *proprietary licence* allows the buyer to use the software but not to modify it or distribute it to others (Zandbergen, 2017). This type of licence can be both commercial (requires payment) or for free and in both cases it prevents the user from seeing the original source code written by programmers. The *free and open source software is software* for which the source code is released and it can benefit the user in a way that he or she can use the code, modify it or further distribute it. This licence is typically free of charge and it is often developed in a collaborative way, where users contribute their ideas and suggestion for the software improvement (Zandbergen, 2017).

Software companies have been traditionally making money from product sales and licence fees. This trend has dramatically changed over years, as "*company's revenues have shifted to services such as annual maintenance payments that entitle users to patches, minor upgrades, and often technical support*" (Cusumano, 2008, p.1). This trend has been accelerated with the advent of free and open sources softwares, which pushed down the software market prices. There is another business model

of a so-called *Software as a Service (SaaS)*, which is free of charge to the user (e.g. Google) but the vendor earns money from the companies posting adverts.

The product life cycle analysis suggests that most software companies first start generating revenues from product licence fees, then, over time, they shift to a combination of both products and services and eventually end up providing services mostly. Nevertheless, As Cusumano suggests (2008) firms should continue focusing on product sales as well, since those generate up to 99% of margins given the fact that to copy a piece of software requires zero costs. The labor-intensive services, on the other hand, usually generate at most 30% margin.

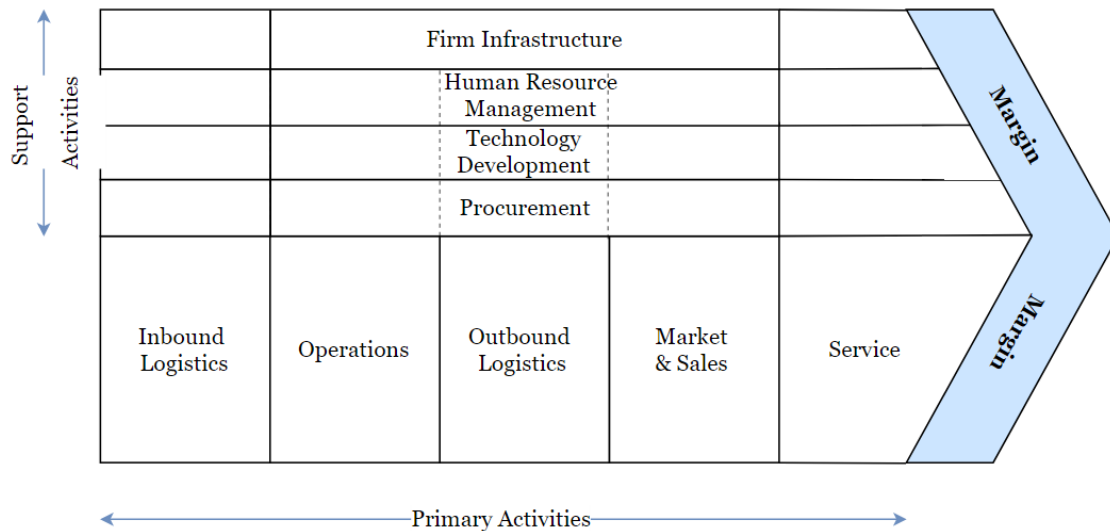
## 2.2 MARKETING STRATEGY

According to the classic definition by Philip Kotler, "*marketing strategy lays out the target markets and the value proposition that will be offered, based on an analysis of the best market opportunities*" (Diaz-Bernardo, 2017, Lecture transcript). Having a clearly defined strategy is therefore essential for the tactical part of the business plan, which determines how strategies will be implemented through the marketing mix and overall, how the company's goals will be achieved.

### 2.2.1 Value creation

Understanding the concept of value chain is extremely important for developing a sound marketing strategy, as it can help a company to realise and exploit their competitive advantage, which competitors may not even know exists (Vitale & Giglierano, 2012). Michael Porter identified the value chain as "*a tool for identifying ways to create more customer values*" (Kotler & Keller, 2012, p. 34) so that the company can offer more value than its competitors, as perceived by the customer. The value refers to the total offering, which customer or prospect "*perceives as contributing to benefits and costs*" and besides the product and service it also includes factors such as brand image, availability, quantity or evaluated price (Vitale & Giglierano, 2012, p. 19). It is therefore crucial to realise that the decision to select a particular supplier and purchase their product or service lies in customer's perception of the value created, not the supplier's one.

Fig. 2: Porter's Generic Value Chain



Source: Porter (1985, in "Porters Value Chain, n.d.)

As depicted in the Value chain model above, every company is a synthesis of activities, which purpose is "to design, produce, market, deliver, and support" company's product (Kotler & Keller, 2012, p. 34). The model then identifies 9 strategically relevant activities, which contribute to the value and cost creation in the business. These activities can be divided into the *primary* activities (logistics, operations, marketing, etc.), which contribute directly to the offer and the *support activities* (HR, procurement, etc.), which enable the direct activities to happen. Company's success depends on how much value each department can create, but also on how well are respective departments coordinated in order to perform to *core business processes*<sup>2</sup>.

According to Vitale & Giglierano (2012) the value chain model has four key implications for business marketing. Firstly, it can be concluded that organisation should truly pay attention to what their prospective customers would perceive as valuable and recognize the factors which will add value to the total offering. Secondly, it is important to realise that not all customers are alike and therefore segmentation and strategic customer targeting is essential to deliver the right value to the right customers. Thirdly, primary and secondary activities are equally important and without one the value chain would fall apart. And fourthly, the model shows that the value creation is extended from the customer

<sup>2</sup> Core business processes is a set of activities and tasks that, once completed, will accomplish an organizational goal and typically involves the market sensing process, the new offering realization process, the customer acquisition process, the customer relationship management process and the fulfilment management process (Kotler & Keller, 2012).

all the way back through distribution channels, manufacturers, component suppliers to the raw material providers.

### 2.2.2 Segmentation

Market segmentation is the first part of the so-called *STP model* and it refers to "*the process of dividing a market into distinct groups of buyers who have different needs, characteristics, or behaviours, and who might require separate products or marketing programs*" (Kotler & Armstrong, 2012, p. 49). Since market consists of various types of products, customers, and needs, the market segmentation aims is to reduce confusion and help marketers to better understand how to approach particular segments (Vitale & Giglierano, 2012). The logic is that customers in the same market segments should have similar needs and behaviour and should therefore respond "*to a given set of marketing efforts in a similar way*" (Kotler & Armstrong, 2012, p. 49). The market is very fragmented and diverse and in order to prevent its *over-segmentation*, marketers should aim for segments, which are *measurable* (size, value needs, purchasing characteristics), *accessible* (ability to reach the customers), *substantial* (profitable and worth product differentiation) and *actionable* (business capability to satisfy customer's needs) (Vitale & Giglierano, 2012).

Although similar principles apply, Bonoma and Shapiro (1983, as cited in Fill & Fill, 2005, p. 50) suggest that the market segmentation in the B2B market "*has not been as well researched and documented as that in consumer markets*". Due to the multiple product application, greater customer variability or difficulty to identify differences between groups of organisational customers, the B2B market segmentation may require more efforts and rigour than on B2C (Griffith & Pol 1994, as cited in Fill & Fill, 2005). A typical customer segmentation schemes on the B2B may include ("Finding your best customer", 2012):

- Segmentation by geographic base / reach
- Segmentation by industry / sub-industry / industry served / customer served
- Segmentation by product class / product usage
- Segmentation by organization size (measured by revenue, number of employees, etc.)
- Segmentation by product delivery model / product format / packaging format / special technology / process methodology
- Segmentation by special use / needs



According to Stuntebeck (2012) organisations should also incorporate in the segment creation the customer related data such as *tenure* (how long has the business been a customer) or *recent activity* (when was the last revenue,...). This information combined with the more general and demographic sources often yields the most powerful insights for businesses. Once the B2B segments are created and have been assigned clever names, the company chooses which segments are worth addressing.

### 2.2.3 Targeting

Targeting is essentially the evaluation of each market segment's attractiveness and the company's decision which of these segments to enter. Kotler & Armstrong (2012, p. 49) suggest that a company "*should target segments in which it can profitably generate the greatest customer value and sustain it over time*". For example, if a company has limited resources it might choose to focus on only one or few market segments or target market niches<sup>3</sup>. Another company may choose to serve several related segments, which may be demographically diverse but have similar basic needs. Table 5 shows the key factors, which should be taken into account when assessing which segments to target.

**Table 5: Factors in Assessing Segment Attractiveness**

•Segment size	•Sufficiency of channel reach
•Growth rate of segment	•Likely value contribution by channels
•Intensity of unmet need(s)	•Match between segment needs and supplier's strenghts
•Reachability of segment through communication channels	•Differentiability of supplier's offering
•Readiness of segment to seek and adapt solution	•Opportunity to achieve strategic goal by addressing segment
•Likelihood of competitive intensity	•Opportunity to achieve learning goal by addressing segment

Source: Vitale & Giglierano (2012, p.203)

By considering all the critical factors above and selectively choosing which segments to target and which not, the company can achieve a substantial competitive advantage over its rivals. According to Porter (n.d.) there are essentially

<sup>3</sup> A small but profitable segment of a market suitable for focused attention by a marketer (Market Niche, 2017).

three main strategies for targeting specific market segments (as cited in Vitale & Giglierano, 2012). First, the company may choose to target the *low cost segment* and put competitive pricing pressure on its competitors. Second, it can provide goods or services, which are *differentiated* but still satisfy needs of broader, mass markets. Or thirdly, to focus on a very small market space, such as *niche market*, and provide them with exactly the right product at a reasonable price.

Many companies choose to enter one segment and, if it proves successful, they enter other. In order to expand without causing a *brand delusion*, the company may choose to create a *sub-brand*<sup>4</sup>, which will target a new segment of customers and satisfy their particular needs without harming the brand (e.g. Marriot and Marriot Courtyard).

#### 2.2.4 Positioning

Market segmentation and targeting are prerequisites for a successful positioning, which refers to the way we want our prospective and existing customers to perceive our brand or product, i.e. "*the place the product occupies in consumers' minds relative to competing products*" (Kotler & Armstrong, 2012, p. 207). Through appropriate **communication** and **differentiation**, a firm can influence the customers' perception and make them think their firm's product and service offers more value than their competitors. Therefore, as Ries and Trout (1972, as cited in Fill & Fill, 2005, p. 69) suggest, it is important to realise "*that it is not what you do to a product that matters, it is what you do to the mind of the prospect that is important*". The concept of *differentiation* is extremely important for an effective positioning, as the company needs to convey the message to the customers that their brand and product is different and unique.

Positioning is most commonly associated with the consumer market, however it is also used in B2B apart from "*the types of messages conveyed and the balance of the promotional mix used to deliver the positioning messages*" (Fill & Fill, 2005, p. 69). As mentioned previously the purchase decision in B2B is rationally rather than emotionally motivated therefore it follows that the messages in B2B should be more factual and product oriented. This traditional notion is nevertheless changing and the need for building a **business brand**<sup>5</sup> is rising in B2B. Kotler &

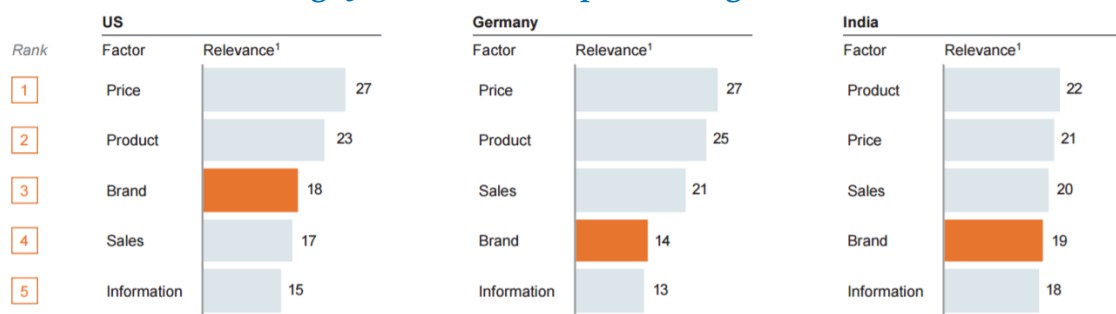
<sup>4</sup> Inappropriate brand extension, which is harming the brand. Customers no longer associate the product with the brand due to confusion (Karlíček & Říha, 2015).

<sup>5</sup> Brand is "*a name, term, sign, symbol, design, or a combination of these, that identifies the products or services of one seller or group of sellers and differentiates them from those of competitors* (Kotler & Armstrong, 2012, p. 231)". Kotler & Pfoertsch (2006, p. 11) add it is also "*a promise, the totality of perception – everything you see, hear, know, feel, think, etc.-about a product, service, or business.*"

Pförsch (2006) perceive the view that B2B companies should base their decision making purely on so called *hard facts* such as technical features, functionality, service, benefits, price and quality as completely wrong. They suggest that the *soft facts* like reputation or whether the supplier is well known are equally important and many B2B companies spurn their fortune due to insufficient B2B branding. They also emphasize the fact that some of the world's strongest brands such as Microsoft, IBM, Dell, Oracle or FedEx are actually companies, which operate mainly on the B2B rather than B2C markets and invested in establishing their brand.

The importance of branding on B2B is also emphasized in the study by McKinsey (2013), which shows that the supplier's brand ranks as the 3rd or 4th most important purchasing factor for company's decision making in respective countries, as shown in the graph below.

**Fig. 3: Brands act as purchasing factors**



Source: McKinsey(2013)

Kotler & Pförsch (2006) assign this increased importance of branding in B2B to the explosion of choices and overwhelming number of potential suppliers in almost every industry. Another important aspect of B2B branding is that it reaches not only the company's customers but also other stakeholders – employees, partners, investors, competitors, suppliers, regulators or members of local community. A well-managed brand can therefore impact a wider environment, which can influence company's long-term performance. The McKinsey study (2013, p. 3) further suggests, "*consumers primarily appreciate brands as carriers of image and emotion, whereas business customers attribute higher importance to other brand functions, such as risk reduction and information efficiency*". Mudambi (as cited in Fill & Fill, 2005) agrees that the B2B branding opportunities are underexploited and proposes that there are three types of B2B customers based on what they find important in terms of branding. *The highly tangible cluster* requires the more traditional quantifiable and objective benefits of the offering. *The brand receptive cluster* appreciates the company reputation along with the emotional and self-

expressive benefits. And finally, the *low interest cluster* responds mainly to the brand based communications emphasizing the importance of the purchase decision and procedures supporting the ordering systems. Presentation of mini cases or customers with similar purchase situations is also appealing to them.

Regarding the high tech and software industry, increasingly more companies and vendors "*position themselves in terms of the benefits provided by their solutions to customer problems*" (Fill & Fill, 2005, p. 72). This might include lower costs, less wastage, quicker order processing, higher levels of service, more satisfied customers or improved profitability. Shafi (2013, p. 20) then suggests that many software companies could further improve their branding techniques and use more simple language to clearly communicate their message and convey the value added to the business customers, who often lack the technical knowledge. He suggests that software products should be "*positioned as simple, handy, portable, and visually appealing*" in order to attract businesses seeking simple solutions to their needs.

## 2.3 MARKETING TACTICS

### 2.3.1 Marketing mix

The tactical part of the marketing plan should cover how specifically the marketing strategy will be delivered and the organisational goals will be achieved. The essential part of the tactics is the so-called marketing mix, which refers to "*the set of tactical marketing tools—product, price, place, and promotion—that the firm blends to produce the response it wants in the target market*" (Kotler & Armstrong, 2012, p. 51). Palmer (2004) further suggests that "*the tools can be used to develop both long-term strategies and short-term tactical programmes*" (in Goi, 2009, p. 1). Some authors have also attempted to extend the mix by adding a fifth "P", such as people, packaging or process.

#### **Products**

The term product has slightly different connotations in consumer and business markets. In B2C, a product usually refers to the core product, or service, that "*can be augmented by additional features and options that will appeal to different buyers*" (Vitale & Giglierano, 2012, p. 5). As Fill & Fill (2005) suggest, manufacturers are increasingly seeking ways to make the customers feel like they can customize the product according to their own tastes and needs.

In business markets, the product refers to the entire offering, which can include the financing, delivery, and additional services. It is defined and created through the negotiations and partnership between the buyer and the seller. This process then *"produces a product that is specific to the buying unit's needs while maximizing the value creation capabilities of the marketer"* (Vitale & Giglierano, 2012, p. 6). More technical products such as software products are often developed and specified through mutual negotiations and partnership agreements, *"the result is an offering that is unique to the buying organisation"* (Fill & Fill, 2005, p. 19).

### **Price**

Price is *"a measure of value that both parties assign to their contribution to an exchange"* (Fill & Fill, 2005, p. 19). It is also important to realise that the price is determined by the market rather than by the costs created with the offering (Vitale & Giglierano, 2012). The price component also differs in consumer and business markets; in B2C the *list prices* are usually the norm, with little room for negotiations, except from certain products such as housing or cars, where price negotiation is acceptable. Some discounts or special financing schemes for high-cost purchases might be also provided to increase the perceived value and make the product more accessible to the consumer.

In B2B the price is rarely fixed; its determination is usually *"the final step in a complex design, development and negotiation, particularly when the product is the result of a collaborative effort"* (Vitale & Giglierano, 2012, p. 7). Special discounts, allowances, complex financing options or barter-like transactions may be also involved. For example, price reduction can be offered in return for promoting the seller's brand, or, some services may be offered in exchange for stock options. Pricing on the international markets can be even more complex and might require special adjustments for different currencies and swift responses as the exchange rates shift.

### **Place**

Place refers to all company activities that make the product available to the customer. In B2C, this includes delivering the product to the customer in the right form (quantity, packaging, etc.); at a useful time (short waiting periods, etc.); and with possession ease (payment with cash, credit card, etc.) (Vitale & Giglierano, 2012). Here, the economic utility includes consumer preferences regarding the location, quantities/sizes and temporal and acquisition convenience.

The economic utility in B2B often takes on the form of supply chain management, material resource planning and inventory services (Vitale & Giglierano,

2012). The business marketing channel differs from the consumer one mainly in its length and the level of concentration. In B2B the quantities purchased are substantially larger than in B2C with the timing of delivery being a critical factor. This leads to a more direct relationship between the buyer and seller and shortening of the marketing channel by eliminating unnecessary intermediaries (Fill & Fill, 2005).

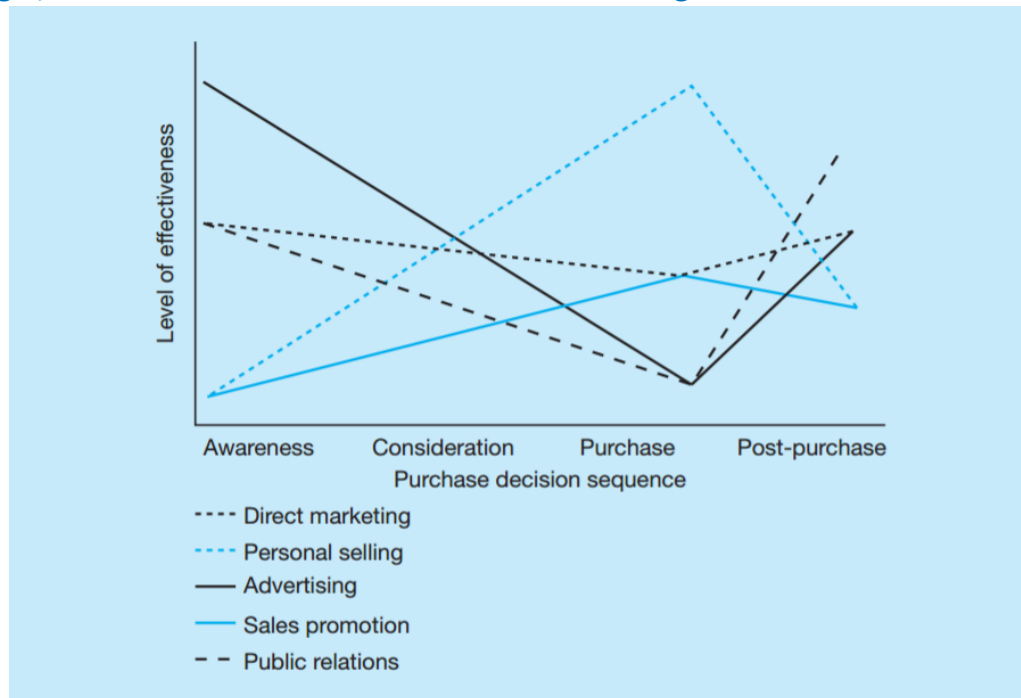
### Promotion

Promotion encompasses all activities, which "*communicate the merits of the product and persuade target customers to buy it*" (Kotler & Armstrong, 2012, p. 52). In consumer markets, the marketing *communication mix*<sup>6</sup> largely relies on advertising, which enables companies to reach widely dispersed audiences (Fill & Fill, 2005). Although some B2C companies attempt to collect data about customer's satisfaction, the feedback is rather low and the relationships between seller and buyer are temporary.

Since companies in B2B need to be in closer contact with the buyer to exchange valuable information and often detailed technical requirements, the one-way communication through advertising is not so common (Vitale & Giglierano, 2012). The emphasis is thus traditionally placed on personal selling which enables the seller to initiate a dialogue, obtain a rapid feedback and develop relationship with the buyer. Personal selling is often supported by direct marketing "*which allows organisations to target a specific set of customers, measure the return on investment (ROI), and test different strategies before implementing to all targeted customers.*" (University of Minnesota Libraries Publishing, 2015). It may include telemarketing, direct mail or catalogues.

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<sup>6</sup> Marketing communication mix, or promotion mix is "*the specific blend of promotion tools that the company uses to persuasively communicate customer value and build customer relationships.*" and includes advertising, personal selling, sales promotion and public relations. (Kotler & Armstrong, 2012, p. G5)

**Fig. 4: The relative effectiveness of the marketing communication mix tools**

Source: Fill & Fill (2005,p.328)

The graph above summarises the relative effectiveness of tools of the marketing communication mix. According to Fill & Fill (2005), advertising is usually more effective at creating awareness and personal selling at prompting action and product purchase. Nowadays most B2B companies utilize direct marketing and increasingly the Internet and social networks (Gauber & Dotson, 2002, as cited in Fill & Fill, 2005). Public relations also play a significant role in promotion due to its credibility and low costs for the company.

The role of e-commerce<sup>7</sup> in the B2B market is also very high. According to a report by Gartner, the B2B sales of goods online reached \$8.5 trillion globally by 2005 (in Armstrong et al., 2009, p. 482). In the digital era, B2B marketers use trading networks, spot exchanges, auction sites, barter sites, and other "online resources to reach new customers, serve current customers more effectively, and obtain buying efficiencies and better prices" (Armstrong, Kotler, Harker & Brennan, 2009, p. 482). Furthermore, the intensity of ecommerce varies with different countries or industries; for instance companies involved with ICT typically rely heavily on ecommerce.

### Inbound Marketing

Increasingly more companies lean towards the recently emerged inbound mar-

<sup>7</sup> "Online selling of goods and services to final consumers" (Armstrong et al., 2009, p. 479)

keting, which is *"an effective means of brand promotion"* that enables company's brand to "be found" rather than be pushed to customers through often interruptive traditional outbound techniques (Agrawal, 2016). Inbound marketing is about *"pulling relevant prospects and customers towards a business and its products"* by offering them *"useful information, tools and resources to attract"* them to company's site and *"developing relationships with customers on the web"* (Hubspot, 2009, p. 4). Inbound marketing tools typically include blogging, search engine optimization, content marketing/publishing, social media and social networks. It enables companies to generate relevant leads (potential sales contacts) that can be converted to paying customers (Agrawal, 2016).

According to a 2011 Hubspot study, *"leads obtained from inbound marketing efforts cost 62% less than leads from outbound marketing efforts"* (Agrawal, 2016, p. 2). The popularity of inbound marketing is steadily increasing as a similar study conducted in 2009 already showed that 37% of business' lead generation budget was dedicated to inbound marketing activities whereas 30% went to outbound marketing efforts (Hubspot, 2009). Moreover, the results showed that B2B organisations spent most of their Lead generation budget on so called PPC<sup>8</sup> (paid search/ Adwords), SEO<sup>9</sup>, trade shows, telemarketing, blogs/social media and others. The survey also showed that businesses perceive blogs and SEO as two channels of most growing importance whereas direct mail, trade shows and telemarketing were perceived as of falling importance.

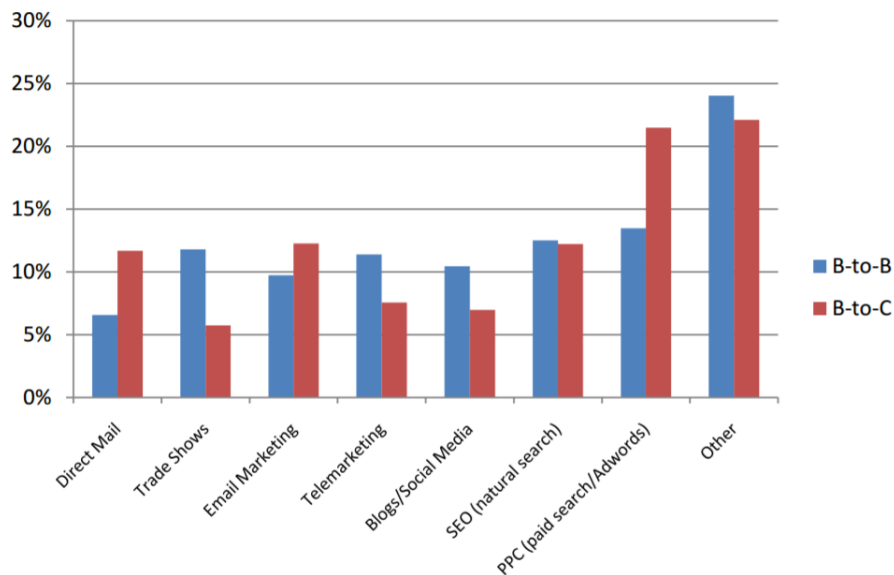
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8 Pay per click (PPC) is a *"cost model implemented by search engines or other websites to charge advertisers for each time a user clicks a specific link"* (Pay per click, 2017).

9 Search engine optimization (SEO) *"refers to the process of improving traffic to a given website by increasing the site's visibility in search engine results. Websites improve search engine optimization by improving content, making sure that the pages are able to be indexed correctly, and ensuring that the content is unique"* (Search engine optimization, 2017).



Fig. 5: % of Lead Generation Budget Spend



Source: Hubspot (2009, p.10)

While inbound marketing proves to be effective in B2B markets, some authors suggest it can also become a relevant strategic component for companies operating exclusively on the B2G. By sharing quality content and becoming more visible for potential customers, smaller companies can build on their credibility and brand name relatively easily online and compete with the more established government contractors (Beveridge, 2015). A 2015 Federal Content Marketing Review showed that the majority of government buyers frequently access various websites, case studies, webinars, research papers, whitepapers or videos to educate themselves in various topics, and, when selecting the candidates during purchasing, they actually look for this content on companies' sites (Beveridge, 2015).

## 2.4 MARKETING ANALYSIS

As Kotler & Armstrong (2012) suggest, in order to be good at marketing, companies need to pay attention to the management aspect of the marketing process, which includes *analysis, planning, implementation, and control*. Marketing analysis is essential for designing the marketing strategy, and implementing the plan into action through specific tactical tools. Control then includes "*measuring and evaluating the results of marketing activities and taking corrective actions where needed*" (Kotler & Armstrong 2012, p. 53).

### 2.4.1 SWOT

SWOT analysis allows marketers to see the broader picture of the company's situations; it is a tool, which evaluates company's overall strengths, weaknesses, opportunities, and threats and can be used to assess company's standing compared to its competitors. As shown in the table below, SWOT monitors both *internal* factors of the company, which are manageable and controllable by the company (strengths, weaknesses) and the *external* influences, which the company cannot control (opportunities, threats). Then, considering whether the factors are *positive* or *negative*, the company can adjust its activities to turn their weaknesses into strengths and threats to opportunities. The overall goal of the analysis is to use company's strengths to maximize attractive opportunities and to eliminate or overcome the weaknesses and minimize external threats (Kotler & Armstrong 2012, p. 54).

**Fig. 6: SWOT Analysis**

<i>Internal</i>	Strenght	Weaknesses
<i>External</i>	Opportunities	Threats
	<i>Positive</i>	<i>Negative</i>

Source: Author

**Strengths** are company's "*internal capabilities that may help the company reach its objectives*" (Kotler & Armstrong 2012, p. 54). Those can be any advantage or unique selling proposition<sup>10</sup> that the organisation has to offer; e.g. product quality, unique resources, technically advanced production process, strong image, highly skilled workforce, good financial performance, etc. Furthermore in order to get the whole picture, it is advisable to consider strengths both from the company's internal perspective and from the view of customers and other shareholders ("Swot analysis..", n.d.). For instance, if majority of company's competitors offer high quality products, the product quality should not be considered as

<sup>10</sup> Unique selling proposition (USP) is "*real or perceived benefit of a good or service that differentiates it from the competing brands and gives its buyer a logical reason to prefer it over other brands.*" (Unique selling proposition, 2017)

company's strength as it is no longer unique.

**Weaknesses** refer to the "*internal limitations that may interfere with the company's ability to achieve its objectives*" (Kotler & Armstrong 2012, p. 54). These are the things the company should improve and which are often connected with components of the marketing mix. For example, factors such as high selling price, limited distribution network, poor partnership, weak brand image, low reputation, indebtedness or poor company management can be considered as weakness of the company.

**Opportunities** are favourable external factors, which "*the company may be able to exploit to its advantage*" (Kotler & Armstrong 2012, p. 54). When evaluating arising opportunities, marketer should ask questions like: "*Can it be expected that a rapid rate of growth of existing markets will occur? Is there a possibility of completely new markets?*" (Bambuch, 2013). Opportunities can include advances in technology, changes in government policy/law relevant to the field of business, demographic/lifestyle or social changes and others ("Porter's Five Forces..", n.d.). Marketing managers should be able to anticipate emergence of such favourable events in advance and adjust their marketing strategy and tactics accordingly.

**Threats** can be defined as "*current and emerging external factors that may challenge the company's performance*" (Kotler & Armstrong 2012, p. 54). Without taking appropriate defensive actions, the company can experience falls in sales or profits. Similarly, to opportunities, marketers should be able to identify and predict potential threats ahead and take corrective actions. Threats could pose too rapid changes in technology, the company is unable keep up with, unfavourable competitors actions, changing customer base, tax increases, closing of geographic markets or unfavourable macroeconomic variables (interest rates, exchange rates, inflation, etc).

#### 2.4.2 PESTEL

PESTEL analysis is a complementary tool to SWOT analysis which further expands on the external context by examining the *political, economic, social, technological, environmental and legal* factors (Mullerback, 2015). The following tables (6 - 11) summarize the common factors within each area of the analysis.

**Table 6: Pestel Analysis factor: Political**

<b>Political</b>
<ul style="list-style-type: none"> <li>•Government policies: National, state/provincial, local, other</li> <li>•Government stability</li> <li>•Corruption levels</li> <li>•Bureaucracy issues</li> <li>•Tax regulations</li> <li>•Consumer protection</li> <li>•Government resource allocations</li> <li>•Stakeholder needs or demands</li> <li>•Lobbying / campaign by interest groups: local, national</li> <li>•International influences / pressures from international actors, e.g. other governments, international organizations, etc.</li> <li>•Armed conflicts</li> <li>•Changes in power, influences, connectedness of key relevant actors / groups</li> <li>•Expected direction of future political change: future policy prospects; upcoming elections and possible change in government (local, state, national) and its consequences; other relevant political trends</li> </ul>

Source: Mullerback (2015, p. 9-10); Team FME (2013, p. 10-20)

Note: The difference between Political and Legal factors is that Political refers to attitudes and approaches, whereas Legal factors are those, which have become law and regulations. Legal factors need to be complied with, whereas Political may represent influences, restrictions or opportunities, but they are not mandatory (Pestle – Macro Environmental Analysis, 2017).

**Table 7: Pestel Analysis factor: Economic**

<b>Economic</b>
<ul style="list-style-type: none"> <li>•Economic situation: local, national, regional, global</li> <li>•Inflation, exchange rates, interest rates</li> <li>•Unemployment, skills levels, availability of expertise, working practices</li> <li>•Economic situation and prospects of any relevant industries</li> <li>•Infrastructure: local, national, other</li> <li>•Financial situation of key partners or other relevant entities</li> <li>•Availability of private sector resources relevant for the project/initiatives</li> <li>•Expected direction of economic change: prevailing economic trends, trade and market cycles</li> <li>•Expected economic interventions by governments and their consequences; other relevant economic trends</li> </ul>

Source: Mullerback (2015, p. 9-10); Team FME (2013, p. 10-20)

**Table 8: Pestel Analysis factor: Legal****Legal**

- Existing legislation having an impact on any relevant factors (economic, social, technological, environmental or other factors relevant to the issue), or affecting population groups relevant to the issue, or impacting the work of the organization or its partnerships
- Health and safety, taxation, advertising, import/export, compliance
- Regulatory bodies
- Pending or future legislation
- International treaties / agreement, either existing or in preparation
- Standards, oversight, regulation and regulatory bodies, and expected changes in these
- Ethical issues

Source: Mullerback (2015, p. 9-10); Team FME (2013, p. 10-20)

**Table 9: Pestel Analysis factor: Social****Social**

- Age distribution, population growth rate
- Employment levels, income statistics
- Education levels and career trends
- Cultural and social conventions
- Public perceptions (of an issue, an initiative, an organisation or other actor)
- Media views
- Role models, celebrities, spokespersons
- Knowledge, attitudes and practices of a particular population group (with regard to a relevant issue)
- Potential for knowledge exchange
- Migration (which also has political, economic and legal dimensions)
- Major relevant events (upcoming or already happening) and cultural trends
- History, to the extent that it affects social attitudes and perceptions
- Dynamics of how social change happens in the given context
- Management style, staff attitudes, organizational culture (within a major relevant organizations)
- Expected direction of social change: broad trends in change of social attitudes (e.g. towards a relevant issue); other relevant social trends
- Credibility of information sources or communication channels

Source: Mullerback (2015, p. 9-10); Team FME (2013, p. 10-20)

**Table 10: Pestel Analysis factor: Technological****Technological**

- Potential for innovation
- Rate of technological change
- Technology transfer, access
- Licensing and patent issues
- Intellectual property rights
- Government activity and legislation
- Possible replacement / alternative technologies
- Network coverage
- Use of outsourcing
- Technologies and related infrastructure / manufacturing / importing requirements for an initiative to succeed
- Population groups' access to technologies
- Research & development
- Production efficiency

Source: Mullerback (2015, p. 9-10); Team FME (2013, p. 10-20)

**Table 11: Pestel Analysis factor: Environmental****Environmental**

- Infrastructure
- Contextually relevant environmental issues: global (e.g. climate change), regional (e.g. flooding, droughts, etc.) or local (e.g. contamination of water supplies)
- Issues of sustainability
- Energy availability and cost
- Relevant environmental regulations or requirements (e.g. for assessing potential climate change impacts of specific activities, conforming to national or international environmental regimes, etc.)
- Environmental impacts of planned or ongoing activities
- Climate, seasonality, potential impacts of weather
- Trends or expected future developments in the environment
- Geographical location

Source: Mullerback (2015, p. 9-10); Team FME (2013, p. 10-20)

### 2.4.3 Competition analysis

The competition among companies to serve customers *"is the very essence of the modern market-led economies"* (Hooley, Saunders & Piercy, 2004, p. 117). The level of competition companies face in the today's fast paced environment is nevertheless one of toughest ever; in order to succeed *"companies must move from a product-and-selling philosophy to a customer-and-marketing philosophy"* (Kotler & Armstrong 2012, p. 528). Besides understanding customer's needs it is also essential to be able to deliver more value and satisfaction to customers than competitors do. This will enable the company to build and maintain profitable relationships and gain competitive advantage, which will be perceived as customer advantage by the target group (Kotler & Armstrong 2012, p. 528). In order to build an effective strategy and tactics, the company should be able to first understand the general forces driving competition within the industry and then focus on their close competitors. They should constantly monitor and analyse competitors' marketing strategies, actions and any changes in their marketing mix (product, price, place, promotion).

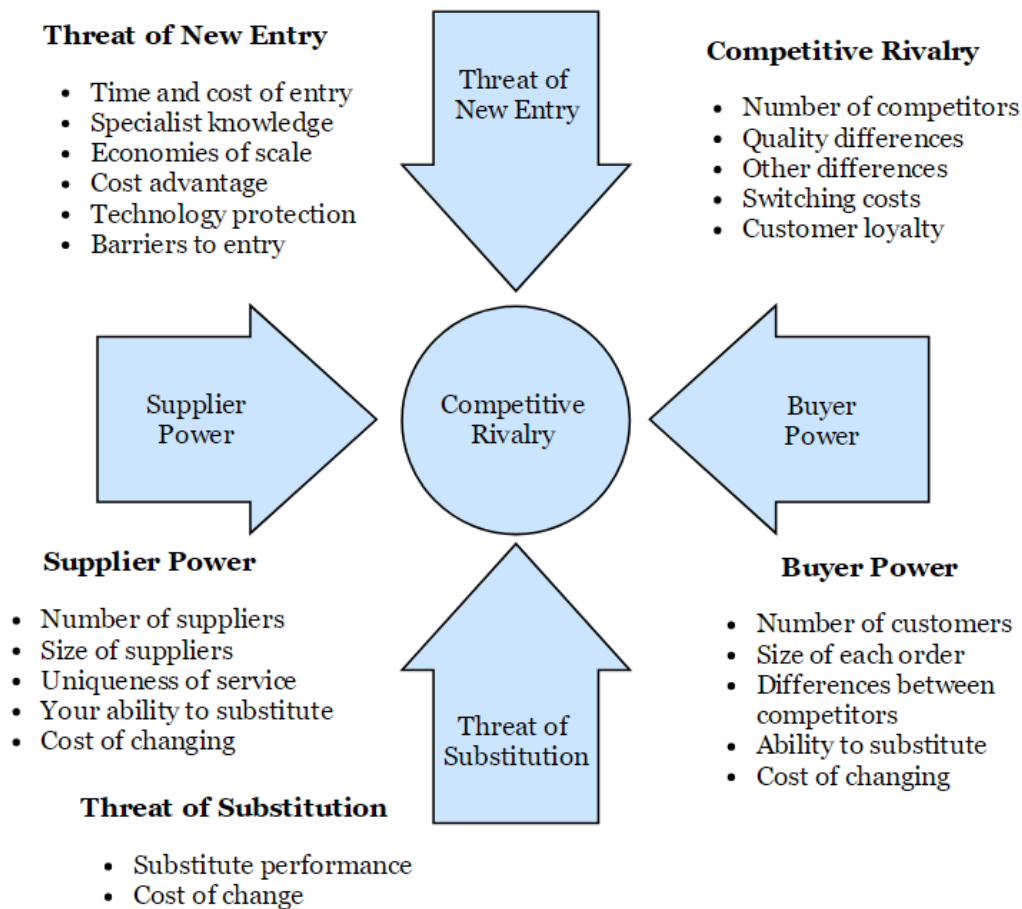
#### **The Five Forces Model Of Industry Competition**

Porter (1980, in Hooley, Saunders & Piercy, 2004, p. 118) identified five main forces, which *"shape competition at the level of business units"* and proposed that analysing them *"can help managers to find the keys to competitiveness in their particular industry"*. With a better understanding of where the power lies in the industry, firms can exploit a situation of strength to their advantage and alter their strategy to improve a situation of weakness. The tool can also help businesses to assess whether launching a new product, service or business unit have any chance of being profitable in the given industry environment. Figure 7 depicts the five competitive forces and outlines the main factors in each source.

Overall, the following characteristics usually indicate high levels of within-industry competition (Hooley, Saunders & Piercy, 2004, p. 123)

- Little differentiation between market offers
- Low industry growth rates
- High fixed costs needs to be recovered
- High supplier switching costs
- Low Buyer switching costs
- Low entry barriers
- High exit barriers

Fig. 7: Porter's Five Forces



Sources: "Porter's Five Forces..."(n.d.)

### Competitor's analysis

This analysis includes *identification* of key competitors; *assessment* of their objectives, strategies, strengths and weaknesses, and reaction patterns; and *selecting* which competitor to attack or avoid (Kotler & Armstrong 2012, p. 528).

1. *Identification of competitors* is not that simple task, as the company needs to decide how narrow will be the criterion according to which the competition will be defined (Kotler & Armstrong 2012, p. 528):
  - Companies with *similar product/services, same customer, similar prices* - e.g. Ritz Carlton competing with Four Seasons
  - Companies offering the *same product, or class of products* - e.g. Ritz Carlton competing with all other hotels
  - Companies competing for the *same consumer dollar* - e.g. Ritz Carlton competing with leisure and travel service



- Companies in the same *industry* (*Industry point of view*) – e.g. hospitality industry
  - Companies seeking to satisfy the same customer/ customer group (*Market point of view*) – e.g. need for quality accommodation
2. *Assessment of competitors* should cover the points presented in the table below.

**Table 12: Assessment of company's competitors**

<i>What are competitors' objectives / goals?</i>	Current profitability
	Market share growth
	Cash flow
	Technological / service leadership
	Low cost leadership
<i>What are competitor's strategies? Are they in the same strategic group?</i>	Expansion to new segments
	Product quality, features and mix
	Customer services
	Pricing policy
	Distribution coverage
	Sales force strategy
	Advertising and sales promotion
<i>What are their strenghts and weaknesses?</i>	Programs
	R&D, manufacturing, purchasing, financial
	Gather data on each competitor's goals, strategies and performance over past few years.
<i>What will be competitors' actions and reactions?</i>	<i>Benchmarking</i> of products, processes,...
	Previous findings should help to some extent predict rivals' behaviour.
	Reactions to price cuts, promotion change, new product launch, etc.
	Quick, strong reactions; slow, or none.

Source: Kotler & Armstrong (2012, p.529-531)

Note, the strategic group is "*a group of firms in an industry following the same or a similar strategy*" (Kotler & Armstrong 2012, p. 528). Also note, that "*benchmarking*" refers to "*the process of comparing the company's products and processes to those of competitors or leading firms in other industries to identify best practices and find ways to improve quality and performance*" (Kotler & Armstrong 2012, p. 528).

3. *Selecting which competitors / competitors' classes to avoid or attack*

- **Strong or weak competitors** Competing with strong competitors can sharpen company's abilities and bring returns from outperforming rivals weaknesses. Competing with weak competition requires fewer resources and less time, but may bring little gain.
- **Close or Distant Competitors** It is reasonable to compete with the more direct competitors. Nevertheless, competing too aggressively may bring about retaliation actions from the competition, which can be harmful in the future.
- **Good or Bad Competitors** Good competitors play by the rules of the industry. This can be beneficial as companies can share costs of market and product development, help to legitimize new technologies, foster product differentiation, etc. Bad rivals break the rules, they often try to buy share rather than earn it and take large risks.

Firms can also make the competition irrelevant by following a so-called "blue ocean strategy". This involves seeking "*unoccupied positions in uncontested market spaces*" and creating "*products and services for which there are no direct competitors*" (Kotler & Armstrong 2012, p. 533). Companies thus choose to target smaller, unique market segments, which are left neglected.

### 3.1 METHODOLOGY

The purpose of this thesis is to analyse and expand the general knowledge of how to market a software product to the government. The first half of the paper set the theoretical foundation by introducing the characteristics of B2C, B2B and B2G markets and software industry and by discussing the general theory and analytical tools for business marketing.

The practical part of this study will focus on the marketing analysis of a Czech software company, Atbon, a.s., which operates in the B2G market. It should be noted that most of the company's internal information presented in this section (e.g. sales cycle) came from a personal communication with Atbon, a.s. during the time period 1 April – 8 May, 2017. The investigation will specifically address the way Atbon marketed their recently developed product for data redaction to the government, it will evaluate their marketing efforts during the process and propose suggestions for improvements.

The analysis will begin with general introduction of the company, characteristics of their key product and motivation for developing it. Then the set of analytical tools will be applied to gain better understanding of the company attributes and the overall market situation. The study will discuss the company's strategy and marketing tactics for selling the product. The final part of the paper will summarize the findings and evaluate Atbon's marketing performance when launching their software product on B2G.

**Fig. 8: Company logo**



Sources: Atbon (n.d.)

## 3.2 ATBON, A.S.

**Table 13: General information**

Name	Atbon, a.s.
Type	Joint stock company
Founded	27.5.2008
Company Registration number	28397828
Firm domicile	Prague, CZ

Source: Penize.cz (2017)

3.2.1 *Company characteristics*

ATBON a.s. is a relatively well-established Czech-Slovak software company of around 15 employees, which has been operating in the Czech market since 2008. The company focuses on development and provisions of complex IT products, services and solutions for both business and government organisations. Generally, their aim is to improve the management function, integration, and information and document management within organisations. The company is operating both in the B2B and B2G market and offers the products, services and solutions presented in table 14<sup>1</sup>.

3.2.2 *Data redaction software*

The data redaction software, called "Zorro", is an application which can hide sensitive information from documents prior to their public distribution. The application allows users to permanently remove confidential data such as personal information about citizens and business partners or information about contract prices. This application responds to the emergence of the following laws (Atbon, a.s., n.d.):

- *The obligation to publish contracts specified under Act no. 340/2015 Coll., which were concluded between a public and private party.*

According to the law, since the 1st July 2016 all state and public institutions, local government units, public enterprises and legal entities, which

<sup>1</sup> Here, a solution refers to a separate item in the product portfolio, representing a combination of product and services, delivered with the purpose of causing a positive business outcome in accordance with a predetermined goal of the organisation.

are by majority owned by the state or local self-government and other institutions as defined in this Act, have the legal obligation to publish newly concluded contracts, if their value exceeds 50 thousand CZK. Contracts must be published in the Register of contracts website (<https://smlouvy.gov.cz/>), which is available to the public. On the 1st of July 2017 will come into force new law, which states that the effectiveness of the contract will be conditioned by its publication in the Registry of contracts.

- *The obligation to protect personal data or confidential information from documents before their publication.*

This obligation is specified under the following acts:

- Act no. 101/2000 Coll., On protection of personal data and amending certain laws
- Act no. 106/1999 Coll., On Free Access to Information

**Table 14: Atbon's Product Portfolio**

<b>Products</b>	<i>Adobe Livecycle</i>
	<i>IBM - Domino / Websphere</i>
<b>Services</b>	<i>SW development - customized for the client's needs</i>
	<i>Educational workshops - systems management course/</i>
	<i>software courses</i>
	<i>Technical support and maintenance</i>
	<i>Systems integration</i>
<b>Solutions</b>	B2B:
	•Q - Integra
	•Balance Scorecard
	•Workflow Management
	•Electronic invoice
	•Document storage
	B2G:
	•Data redaction and document correction
	•Program statements for citizens and electors
	•Filing services
	•Signature book
	•PDF converter

Source: Atbon, a.s. (n.d.)

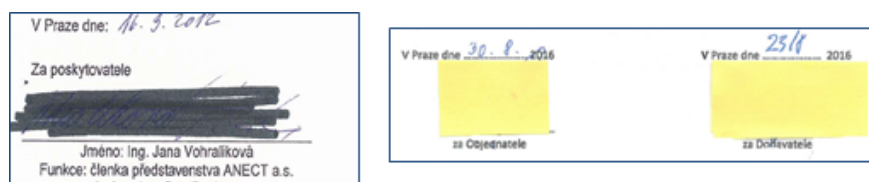
Fig. 9: Product logo



Sources: Atbon (n.d.)

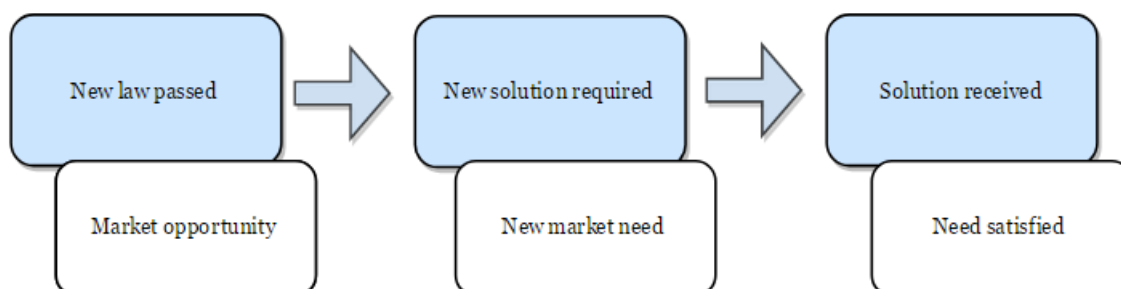
### Current situation

Public institutions have been solving this situation in two ways. First, by hiding the confidential data and information manually, either with a marker or a sticker, and scanning them back to the system. Or via pdf editors, which allow to hide the sensitive information on the computer, but the information has to be detected by the user and removed one by one, manually. Both of these methods are obviously time demanding and very ineffective.



Atbon, a.s. has been able to spot this gap on the market and started developing the application even before the law was passed. Thanks to their previous experience on the B2G market, the company knew, they need to closely follow the government proceedings and be able to identify any potential market opportunities before their competitors do and the legislation comes into effect.

Fig. 10: Finding gap in the market



Sources: Author

### Sales cycle

The following section will describe the sales cycle, i.e. the process that Atbon has undergone when selling their software product to the targeted customer. The company's main aim was to sell the data redaction software to the *Ministry of the interior of the Czech Republic*. Since Ministry of interior is a large and very difficult prospect to attract, the company had to come up with a more profound sales strategy<sup>2</sup>. Their strategy was to first approach smaller state subjects (Town district Prague 10, Prague 2, Prague 12,...) and sell them the software in order to obtain:

- **Successful Business Case** - with convincing cost benefit analysis
- **Mature solution** - the application is tested and working (up & run)
- **References** - customers with similar needs have been satisfied

With these attributes the application could stand chance of winning the deal with the Ministry. Nevertheless, as mentioned in the first part of the study, being successful on the B2G market requires more than developing the technically appropriate solution for the customer. It requires companies to closely watch the government proceedings, passing of any new laws and spotting potential opportunities before their competitors. Before the law was officially passed the company managed to obtain insider information and was following the proceedings from the first reading of the law, which has been available also to the public. The company was therefore able to design the above-mentioned strategy early enough and started approaching the smaller state subjects straight after the law was passed.

The initial step was thus company-driven; Atbon first created a prototype of the software product and presented it to the Town district Prague 10 as an effective solution for the newly emerged need to publish contracts without disclosing the sensitive information. When the prospect was interested in purchasing such software, as a state entity they were obliged to open a tender to find out if other companies do not offer similar products for better price or quality. After successfully winning the tender for Prague 10, Atbon continued developing the application and adjusted it to the customer's specific requirements. This process was repeated with other state subjects and the company continued collecting positive references. This approach also allowed the company to further develop and gradually upgrade the application according to constantly emerging customer's requirements. In this way, the users helped the company to improve the

<sup>2</sup> *Planned approach to account-management policy formation, prospect identification and qualification, sales presentation, and order generation aimed at achieving a firm's sales quotas or targets. (Sales strategy, 2017)*

software quality according to the customer driven features and thereby increase the product's attractiveness to the Ministry of Interior.

The company ultimately presented the software to the Ministry of the Interior. The ministry decided to test the product and opened a call for a pilot in order to test the applications' suitability. In the pilot version, the ministry would pay for the software implementation and staff training but not for the entire licence, which was the most expensive item. Atbon won the tender, and started the implementation of the software within the pilot project. At the end of the pilot, numerous questionnaires, reports and statistics have been conducted in order to assess the performance of the software and propose suggestions for improvement. With this knowledge more specific technical product requirements have been concluded and a request for information (RFI)<sup>3</sup> has been made. After obtaining more information about the prevailing market offer and its current capabilities, the Ministry was able to specify the price and other business and technical requirements. Ultimately, after all the necessary information was collected, the ministry published a request for proposals (RFP)<sup>4</sup> to assess whether other companies can offer the solution for better price and quality. Overall, more than 40 suppliers have been invited to participate in the public tender and Atbon, a.s. was chosen as the most suitable candidate. The contract between the ministry and the company has been signed and the implementation process will begin.

### 3.2.3 PESTEL

The following section will conduct the PESTEL analysis of Atbon with a special focus on their data redaction software, in order to assess the current market environment.

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<sup>3</sup> An RFI (request for information) is a formal process for gathering information from potential suppliers of a good or service. An RFI is typically the first and most broadly cast of a series of requests intended to narrow down a list of candidates. (Rouse, 2017a)

<sup>4</sup> A request for proposal (RFP) is a document that an organization posts to elicit bids from potential vendors for a desired IT solution. The RFP specifies what the customer is looking for and establishes evaluation criteria for assessing proposals. (Rouse, 2017b).



### Political

The perceived *level of corruption* in the Czech Republic is one of the highest in the EU with public procurement being one of the most affected areas (European Commission, 2017a). This can certainly affect fairness during the candidate's selection process and may skew the results.

So far, Atbon has been successful at winning the tenders. The changeable and *less transparent political environment* can however create business uncertainty in the future, especially when the *government changes*. On the 20th and 21st of October, 2017 the Czech legislative election, where all 200 members of the Chamber of Deputies will be elected and the leader of the winning party will become the Prime Minister, will take place ("Termín konání voleb...", 2017). Atbon's future operations in the B2G is thus vastly dependent on the prevailing political conditions; with any government changes the volume of sales and overall demand for additional services connected with the software can be affected.

The effects of lobbying, pressures from political influencers, and illegal favouritism can also hamper Atbon's chances of winning future public tenders.

On the other hand, government's tendencies towards *eGovernment* and digitization can create more market opportunities for Atbon in the future.

### Economic

Czech republic's economic performance would certainly affect patterns of the government spending and the amount of funds available for public purchases both on the regional and national level. According to a study by OECD (2016) and the current statistics, the Czech Republic is in the period a stable economic growth, which should continue in 2018 and the level of unemployment is currently the lowest within the EU (Kučera, 2017).

Furthermore, after sharp cuts in investment levels in 2016 due to transitions within the EU, the investments are projected to rise in 2017 (OECD, 2016). Although the level of inflation is expected to slightly increase this year, it should drop in the following year (ČTK, 2017). The favourable economic conditions along with the availability of the European Union funds increase the availability of resources for government spending and boost the public sector demand for innovation and technology.

## Social

As mentioned earlier public perception of corruption in the Czech government is rather high. In order to mediate this, the government has attempted to make the public sector proceedings more transparent and available; launch of the public Registry of contracts under Babiš's ministry of finance was part of these measures. The trend to increase state's credibility by making more information public an accessible online is likely to rise, and so is the demand for suitable ICT solutions.

## Technological

The *potential for innovation* in the Czech Republic is substantially high. The country has a long tradition of excellence in technical fields and the public funding on R&D is above the average of EU countries (European Commission, 2014, p. 1). Nevertheless, the local level of scientific performance is low and the cooperation and knowledge transfer between businesses and universities or public research organisations is poor. A study by European Commission (2014, p.71) also shows that "*business expenditure on R&D (BERD) is largely dominated by foreign affiliates (which perform a little over half of BERD) and is heavily subsidised by the government and from abroad*". For the future, the Czech republic thus requires more domestic innovation leaders who could actively support the public research institutions. Therefore, although the innovation infrastructure is not ideal, the level of local *technological expertise* and the potential for innovation can benefit Atbon.

The functionality of the data redaction software is dependant on the Internet access; without it the SW does not work. Currently the *broadband Internet coverage* in the Czech republic is below the EU average; the latest statistics from 2015 shows that only 51% of the country is covered by broadband (Slížek, 2016) compared to EU's 99,8% (European Commission, 2016). Nevertheless, within three years the situation should improve, as the Internet providers plan to expand the broadband coverage to 79%.

As mentioned earlier the government tendency towards eGovernment and the use of ICT in the public sector operations and services for citizens is rising. In 2016 the Czech government launched the *Initiative 202020*, which goal is to launch set of online public services (digital-self services for the citizens, web applications, interactive web portals, etc.) and catch up with other EU member states in the area of e Government (Iniciativa 202020, 2017). Another example is *Forum pro otevřená data*, a public/private sector initiative run by the Fond of Otakar Motejl, which main aim is to spread the usage of the open data and improve the services and transparency of the public sector (Otevřená data, 2017).

### Environmental

The on-going trend towards *sustainability* will certainly contribute to the digitalization process of the public sector. Cuts in excess bureaucracy will reduce the substantial amounts of materials such as papers or ink cartridges, used in the public offices every day. The data redaction application also saves paper in a way that contracts do not have to be printed, blacked out and scanned back to the system, all data redaction can be done electronically on the computer.

### Legal

Some *legislation modifications* connected with the Registry of contracts or Protection of sensitive data can affect the design of Zorro application and pose higher costs, as extra work will be required for no additional income. As stated in the contract, next to the actual RTU licence and maintenance services, there is a support section, which guarantees the buyer that in case of any relevant changes in legislation, the content of the SW will be adjusted for no additional costs. For instance, if the law adds that the "date of signature" also becomes a confidential data, the application will need to add this information to the SW.

Furthermore, in case a new *EU directive* is introduced or a *new domestic law* is passed, a potential market opportunity for Atbon can be created if abiding the law may require or can be simplified by a new IT based solution.

#### 3.2.4 The Five Forces Model of Industry Competition

The following analysis will assess the power 1-10 (10 highest) of respective market forces.

##### 1. Competitive Rivalry - 3

The level of competition offering a similar type of data redaction software in the B2G is relatively low. In terms of the product quality and solution maturity, Atbon's application is unique as it has many positive references and is already developed. It is often the case that companies which enter the public tenders don't have the software developed until they actually win the tender. Their time to market (TTM)<sup>5</sup> is thus longer and they lack the experience of implementing the product into the customer's system and adjusting potential errors along the process.

<sup>5</sup> "Length of time taken in product development process from product idea to the finished product. It is a critical component of time based competition (Time to market, 2017).

## 2. Threat of new entry - 3

Due to the characteristics of the B2G market, the entry barriers are relatively high and the threat of new entry is therefore low. It usually takes time for new SW companies to become successful at public tenders, as they need to collect valuable experience and insights into the government purchasing and overall proceedings. It is not until that they are able to compete with more experienced government suppliers.

## 3. Supplier power - 3

The only supplier for Atbon's data redaction SW is ABBYY, *"a world leading-leading OCR and text scanning software company, that provides PDF conversion and recognition resolution"* (ABBYY, 2017). Atbon has bought a long-term multilicense for the OCR system, which is integrated in the data redaction application. The SW price is fixed, the software is already implemented in the application and the likelihood of any complications with the SW is very low. The switching costs for different supplier are also low. The overall supplier power is therefore considered as low.

## 4. Buyer Power - 6

The buyer power is medium high, since the government is the one setting purchase conditions and there is no space for price negotiations. On the other, suppliers are protected by the law and once the government agrees to cooperate with one supplier it must abide all the rules. Furthermore, the quoted price in the tender is relatively fair - it is based upon the prevailing market conditions and is usually calculated as an average of all the prices the companies offer for similar product.

## 5. Threat of substitutes - 2

Other method for confidential data redaction is to either manually hide from the paper with a marker or a sticker and scan it back to the system or to edit it electronically with some PDF program. None of these methods are nearly as time and cost efficient as the data redaction SW, therefore the threat of substitutes is low.

### 3.2.5 Benchmarking

The following table will benchmark the companies, which offer the most similar product to the Zorro data redaction application.

**Table 15: Atbon's competitors' benchmark**

Name	Type	Application Name	Price (indicative)	Social media presence*
IBM	MNC	IBM Datacap	Higher	High
Oracle	MNC	Oracle Data redaction	Higher	High
Konica Minolta	MNC	Redacting system	Higher	Medium
Gordic	Domestic	IS Ginis	Lower	Medium high

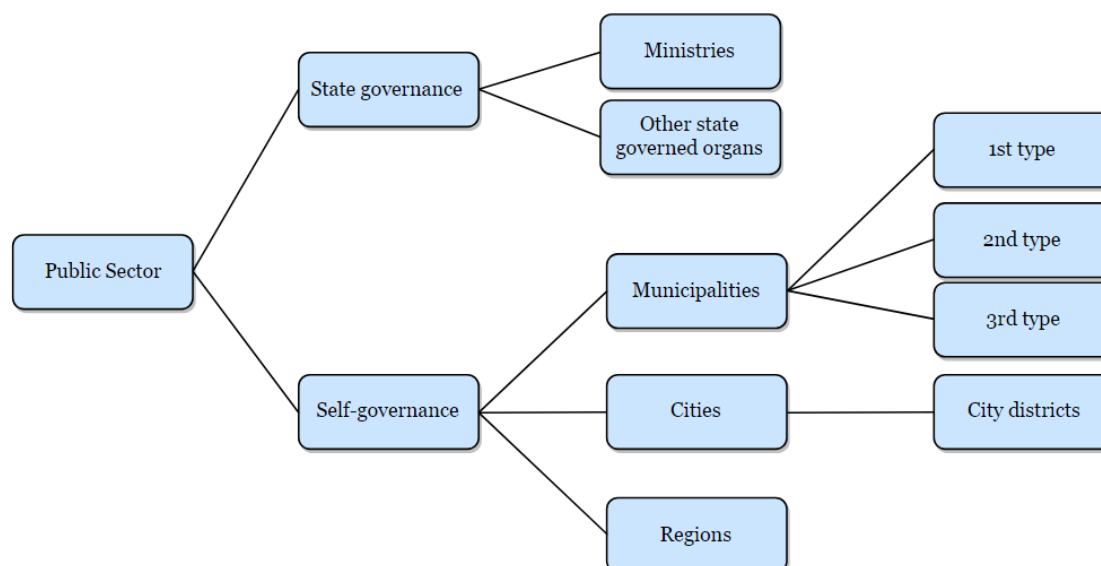
\*on Facebook, Instagram, LinkedIn, Twitter, Youtube

Source: Author

### 3.2.6 Marketing strategy

#### Segmentation

The market segmentation could be described as need-based, since all public authorities have the same need – to follow the law requirement in an efficient way. In order to further divide this market Atbon used the specific public sector hierarchy and the size of respective organs to be able to conduct targeting.

**Fig. 11: B2G Market segments**

Sources: Atbon

#### Targeting

As mentioned in the Atbon's sales strategy, the first stage included targeting the smaller public authorities such as *cities, city districts and regional offices*. The company did not choose to target municipalities, because of their large number. In

the second stage Atbon focused on the ministries, specifically the Ministry of the Interior.

### Positioning

The company aims to be positioned as a *reliable, local yet expert software company providing high quality, mature solutions at affordable prices.*

#### 3.2.7 Marketing mix

### Product

Atbon's product in terms of the total offering includes the licence (right to use), support (L1 support: updates, hot line,...) and maintenance services (L2, L3 support: SLA etc...). The core software product has the following functional features:

- Platform independence; the application can run on various
  - Operational systems (Windows Server 2003+, Linux,...)
  - Application servers (JBoss AS, J2EE server and other Java app server)
  - Databases (Oracle, MS SQL Server, PostgreSQL and any SQL RDBMS)
  - Internet browsers (Explorer, Mozilla, Opera, Google Chrome,...)
  - o Third party applications (directory services, document management systems, contracts digital repository,...)
- Ability to upload documents in basic PDF or other DOC, DOCX, XLS, XLSX, ODS, ODT, GIF, JPG, JPEG, TIF, TIFF, PNG, BMP, TXT, and RTF formats.
- Functions purely in the internet browser, without the need to install applications or plugins (i.e. it works on both computers and tablets).
- Anonymization of full words or images with one click.
- Possibility to manually mark specific blocks of text to be blackened.
- It is possible to repair labeled parts of the document.
- Navigate between document sides.
- Statistics available - the number of blackened pages in documents.
- Possibility to select the type of sensitive information anonymization.
- Full-text search including an anonymous object designation.
- Using templates - Preset or Customized Search Strings - eg Birth Numbers, Credit Card Numbers, Email, IBAN...

- Optional: Uploading MS Office, OpenOffice and Image documents and converting them to PDF.
- Navigate between document sides.
- Optional: Convert OCR images to full-text search PDF.
- Transfer into 26 languages: Slovak, Czech, Bulgarian, Catalan, Croatian, Danish, Dutch, English, Estonian, Finnish, French, German, Hungarian, Indonesian, Italian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Russian, Slovenian, Spanish, Swedish, Turkish.
- Dictionaries for autocorrelations.
- Automatic rotation of images and text.
- Executable on multiple CPU cores to speed up and reduce OCR time.
- Value added
  - Improved effectiveness of the anonymization process.
  - Increase in staff's productivity by saving time for the anonymization process (see the Cost and Benefit Analysis in Appendix C).
  - Reduces the printing and scanning costs (see the Cost and Benefit Analysis in Appendix C).
  - Reduces the possibility of errors.
  - Redacted - anonymized information cannot be extracted from the edited version.

**Price**

The product price cannot be revealed due to confidentiality reasons. Nevertheless compared to the current Atbon's competitors the price for the Zorro application is in the lower average range.

**Place**

The delivery process is simple and convenient for both the customer and the supplier and typically includes the following steps:

- The customer prepares the IT infrastructure
- The customer enables remote access (e.g. RDP protocol) for Atbon.
- Atbon remotely installs the SW.
- Atbon remotely customizes the SW.
- Atbon remotely integrates the SW.

- Atbons provides remote SW monitoring and support + maintenance services for the time period specified in the contract.

**Promotion**

- Atbons promotional techniques include personal selling, direct marketing and the word of mouth based on positive references and professional connections.
- The company has a modest website and a promotional video for the Zorro application (<https://www.youtube.com/watch?v=EQd6r6JANXE>).
- The company is not active on any social media platform.
- The company does not use online marketing campaigns of any kind.



## 3.2.8 SWOT

The SWOT matrix below will summarize company's strengths, weaknesses, opportunities and threats based upon all the analysis conducted above.

**Table 16: SWOT analysis of Atbon's SW product**

<b>STRENGTHS</b> <ul style="list-style-type: none"> <li>• Industry trendsetter</li> <li>• Mature solution, references</li> <li>• Price</li> <li>• Platform independence (1)</li> <li>• Scalability (2)</li> <li>• Cloud centric solution (3)</li> <li>• Cost benefit analysis (App A)</li> </ul>	<b>WEAKNESSES</b> <ul style="list-style-type: none"> <li>• OCR performance, recognition (4)</li> <li>• One sided promotion (5)</li> <li>• Inactive in online marketing (6)</li> </ul>
<b>OPPORTUNITIES</b> <ul style="list-style-type: none"> <li>• Transparency trends</li> <li>• eGovernment</li> <li>• Digitalization</li> <li>• Innovation potential</li> <li>• New legislation</li> <li>• Expansion to Slovak market</li> </ul>	<b>THREATS</b> <ul style="list-style-type: none"> <li>• Corruption</li> <li>• Changes in government</li> <li>• Excessive law modifications (7)</li> <li>• Finite number of customers (8)</li> </ul>

Source: Author

- (1) The application compatibility with third party SW
- (2) The application performance can be easily expanded with higher number of users, documents etc.
- (3) Application is ready to be developed in the Cloud architecture and utilise all its benefits,
- (4) The OCR scanning quality could be improved,
- (5) Reliance on the traditional B2B marketing techniques only,
- (6) Atbons' competitors' are more active on social media and in online can be easily expanded with higher number of users, documents etc.
- (7) Since the price of support is fixed, excess support services can be too costly and financed by the company, and
- (8) When all the public authorities acquire the data redaction software, there will be no customers to sell to; the company will need to find a new market opportunity, new market segment or to modify the application into a new product.

## CONCLUSION

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The objective of this study was to analyse the marketing practices behind software sales in the B2G market using a real life example of a Czech-slovak software company. The theoretical part of the paper began with the basic characteristics of the B2C, B2B and B2G market and the general features of the software industry. The theory described the marketing strategy, tactics and specific tools for the marketing analysis. The study then proceeded to the practical part, where we analysed the marketing practices of the software company Atbon, a.s. when launching their software product on the business to government market.

### 4.1 ATBON'S MARKETING ANALYSIS

Atbon's current position in the B2G market with special regard to their data redaction software is relatively stable. The company has a competitive advantage over its competitors because its SW solution is mature, has positive references, favourable price-performance ratio and technical features, which have been tested by previous customers. Furthermore Atbon has valuable experiences in the B2G market and established professional connections, which enable the company to respond quickly to the potential market needs.

The company's marketing strategy in B2G could be described as *concentrated or niche marketing*, since the company focuses on a larger share of a smaller segment with almost identical needs. This enables the company to gain greater knowledge of its customers and "*market more effectively by fine tuning its products, prices and programmes to the needs of carefully defined segments*" (Armstrong, Kotler, Harker, Brennan, 2009, p. 208). As a smaller IT business Atbon is able to compete on the market by focusing its limited resources on providing high value at lower prices to niches that may be overlooked or may be of less importance to larger competitors (IBM, Oracle,...). By developing innovative software, the company acquired reputation and competitive advantage as the industry trendsetter.

Although the concentrated marketing can be profitable, having a finely tuned product for very specific segments can be risky in cases where the market demand falls or more resourceful competitors decide to increase their presence in the niche and start offering the product for lower prices. As discussed in the SW

industry characteristics, Atbon can continue making revenues from the support and maintenance fees; nevertheless it also requires selling licences to new customers to generate finance for long-term business operations and growth. This threat could be eliminated by expanding the sales to new markets, such as in Slovakia.

Another threat faced by Atbon is the rather unstable business environment caused by a relatively high level of corruption and the potential government changes connected with the October 2017 elections. On the other hand, current trends towards eGovernment, public services digitalization, transparency and sustainability can create new market opportunities for Atbon and increase overall demand for IT based solutions.

Atbon's choice of marketing mix is understandable for a B2G software provider. The product characteristics and its technical features strictly follow the government's technical requirements set in the tender specifications. If one of the requirements is not met, the company will not be able to proceed to the tender evaluation and final selection process. Great emphasis also has to be placed on the benefits that the IT solution will bring the buyer, ideally presented in a comprehensible and customer friendly way. Atbon's *price* strategy follows the *value based* and *competition pricing* logic. When setting the price Atbon considers the benefits and the value that the SW solution will bring to the customers (e.g. via the cost benefit analysis). Nevertheless, in order to close a deal with the public authority, the company must undergo the public tender, where the lowest price is often the main selection criterion (provided that the proposal already meets the basic technical requirements). Therefore, in order to be selected Atbon must be well aware of the prices of their competitors and set their prices accordingly. The *place* and the means of the product delivery are conducted electronically, which is convenient for both the buyer and the seller, as no physical arrangements have to be made. Atbon's *promotion* relies on the typical B2B techniques with an emphasis on the personal selling and direct marketing. Establishing a direct contact with the customer and developing relationships with the public sector is crucial for making connections and building reputation in the B2G market.

#### 4.2 RECOMMENDATIONS

Based on these findings several suggestions for improvement can be made.

- I Atbon should get up to date with the latest trends and invest more in online marketing activities and inbound marketing in particular. Based on the competition benchmark, the overall social media presence of the rivals is sub-

stantially higher than of Atbon. Although, traditionally, B2B/G companies do not invest in reaching a wider public, inbound marketing could enable the company to "pull in" and target only those prospects potentially interested in the kind of products and services that Atbon offers. Furthermore, it has been shown that a large share of public sector workers often access various educational websites, videos or blogs etc. in order to educate themselves in particular areas. Publishing useful and easy to understand content in such a complex field, such as IT, would certainly improve the company's image and reputation both for Atbon's business and public sector customers. Moreover, building a brand name and image of a trustworthy and modern IT solutions advisor would reduce Atbon's dependence on the current government and prevailing political environment. Atbon should therefore consider investing in:

- Social media presence (Facebook, LinkedIn, Twitter, Instagram,...)
- SEO and Google Adwords (currently 8th in Google search anonymizace)
- Lead generations
  - Educational E-book which the prospect can download in return for providing contact information
  - Other downloadable content through which the company can obtain relevant business contacts
- Videos and Podcasts
- Website – modernize, more user friendly, publish articles and blogs
- E-newsletters for prospects and current customer

II In order to support their branding and gain more modern look, the company should consider improving their corporate and product logos and the overall corporate identity (including website design, etc.). According to Cook (2017), the latest trends in logo designs are minimalism and form simplification. Kateřina Rydlová, a designer from the Czech Technical University, further adds:

When evaluating logos I always take the perspective of a potential customer and focus on the first impression and feelings the logo renders. Based solely on the logo, the customer should be able to deduce the approximate type and message the company wishes to convey. The corporate logo of Atbon is simple, yet a little outdated. If the logo is "in use" and people are "accustomed to it", it

would certainly deserve a redesign. Regarding the product logo, the name ZORRO is easy to read, and remember. Nevertheless I think the logo style and even the commercial name of the product is a little inappropriate for the industry. (K. Rýdlová, personal communication, May 1, 2017)

- III In order to diversify and reduce the risk of being overly dependent on few segments and potential government changes, the company should consider extending their customer base and offer the data redaction software abroad. For instance, in Slovakia the public authorities are bound by similar confidentiality and public registry laws. Although it may be initially costly to enter the new market (sales personal training, setting up office, etc.), the expansion may be worth it in the long run and promote company growth.

#### 4.3 IMPLICATIONS FOR THEORY AND PRACTICE

For theory, the study confirms that the marketing practices in the B2G market are very specific and in many ways more demanding than in a typical B2B market. The results of this study show that the role of relationships and value creation are equally important when marketing products to the government and suggests that profound knowledge of the legal environment and political literacy are essential for company's success. This thesis should also encourage further research and investigations on this area.

The results of this study could give practitioners a general overview of what it takes to become successful in marketing a software product to the public sector. Although some features may be similar, the B2G environment varies with different countries and different industries. For software companies in the Czech republic it can be concluded that in order to penetrate the market the firms need to closely monitor any changes in the political and legal environment and comprehend the public sector needs in order to spot the potential gaps and opportunities. It is also essential that the firms identify and are able to connect with the key agency influences, as the purchase decision is never left to one person.

As in any other type of market, it usually takes time to become familiar with the "industry rules" and to build a company's name and reputation. Furthermore, due to the public spending policies and EU regulations, companies must pay special attention to the rules and special requirements throughout the public procedures. Companies also need to monitor their competitors' prices, since

apart from the technical requirements; the price requirement is likely to play a decisive role during the public tender.

Furthermore, for the B2G software companies specifically, it is always advisable to include potential customers early in the development process. The firms should first reach several prospects and present them the software prototype before the ultimate software is fully developed. It is only after an interest from the buyer's side is shown and the information is exchanged that the company can start finalising the development process and adjust it to the specific customer's requirements and needs. In this way, the software providers become truly customer-oriented and save costs from developing a technically excellent product, which is, however, not demanded.

Ultimately, companies should not forget to keep up with the latest trends and underestimate the importance of social media and inbound marketing. These modern marketing platforms and tools are becoming increasingly more relevant in the B2G and can relatively easily and quickly promote a company's brand, reach a wider circle of government influencers and enhance the company's reputation, without making large investments.

#### 4.4 PAPER LIMITATIONS

Although the research topic of this bachelor thesis was very narrowly defined, the question of how to market software to the government showed to be more than complex and certain limiting factors appeared throughout the study.

Due to confidentiality reasons some information and data connected with the software company Atbon, a.s. and their competitors could not be presented in this thesis. The level of detail and preciseness of the critical analysis of this study may have been therefore reduced to some degree. Additionally, the theoretical part attempted to collect and present all the relevant research done in this area and draw general conclusions. However, after conducting the case study and interviewing the Czech software company, it became apparent that there is no one way of becoming a successful B2G software marketer and it is more of a combination of professional experience, know-how, reliable contacts and stroke of luck.

To conclude, the marketing analysis and suggestions for improvement presented in this paper should not be taken as an ultimate guide for success. Rather, they should serve as inspiration to other software companies operating or planning to enter the Czech business to government market, as well as encouragement to current researchers and practitioners to conduct further investigations in this marketing field.

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## APPENDIX

Fig. 12: Study on administrative capacity in the Czech Republic

Key Facts and Figures in Czech Republic						
Overview	Total procurement 21,480,000,000€		Procurement % GDP 14%		2013 GDP 156,932,600,000€	Contracting authorities 1,989
Procedures applied	Open 72%	Restricted 3%	Negotiated procedure with call 5% no call 18%		Competitive dialogue 0%	Direct award 3% Other 0%
Share of contract notices by buyer	National 25%		Regional/local 25%		Body governed by public law 24%	Other 26%
Contract type	Services 33%		Works 17%		Supplies 50%	Framework agreement 8%
Ex ante conditionality criteria as of 2014	EU rules Partially met		Transparency Fully met		Training Fully met	Admin. capacity Partially met
E-procurement adoption	E-notification Mandatory		E-access Mandatory		E-submission Partially mandatory	Uptake rate 0%
Perceived corruption	Corruption widespread in society Businesses 94%		Corruption widespread in procurement Individuals 96%		At national level 77%	At local/regional level 67%
TED indicators	Value of tenders 6,083,478,093€		Of total procurement 28%		# contract notices 5,376	# contract awards 5,951
Other indicators	Received single bid 19%		# days for decision 104.2		Price only criteria 82%	MEAT criteria 18%
	Won by foreign firms 5%		Related to EU funds 42%		Joint purchase 5%	Central purchasing No

Source: European Commission, 2017a

Fig. 13: The Four Marketing Actions



Source: Hubspot, 2017



Fig. 14: Cost and Benefit Analysis Zorro

Calculations for the Cost & Benefit Analysis for anonymisation of contracts for all state institutions according to an impact study to Act 340/2015 Coll.

#		Manual data removal	Adobe Acrobat Pro	Q-Integra REDACTING ZORRO
1.	Number of published contracts for one year (**)	1,500,000	1,500,000	
2.	TCO over 5 years (license + support and maintenance for 5 years) [CZK]	-	3,170,270	
3.	Support and maintenance	N/A	N/A	
4.	TCO for 1 year (license + support and maintenance) [CZK]	-	634,054	
5.	Time required for processing one contract [minutes] (***)	35	23	
6.	Cost per hour of work by an authorized employee [CZK] *	227	227	
7.	Labour cost per 1 contract [CZK]	133	87	
8.	Other material costs per 1 contract 1 (printing material, pen, paper, toner ...) [CZK] (****)	8	-	
9.	Cost of one contract (financial statement of work-related costs + other expenses ) [CZK]	141	87	
10.	Total costs of processing all contracts per one year [CZK]	210,863,636	131,315,872	
11.	Total costs of processing one contract CZK (*****)	141	88	
12.	Saving per 1 contract [CZK]	0	53	
13.	Savings for all contracts/ per year [CZK]	0	- 79,547,764	- 142,045,455
14.	Savings for all contracts/5 years [CZK]	0	- 397,738,821	- 710,227,273
	calculated required number of FTEs	473	311	135
	the estimated number of institutions: 10 456 municipalities, including the type I.			
	turning point - the time difference in working time consumption, wherein the difference in prices of licenses for given conditions [minutes] is erased			
	* Monthly costs per employee 35 000 CZK, average net time fund 154 hours per month (after deduction of leave)	2.0		
	(**) In case of disclosure of contracts over the 50.000 CZK limit, the Ministry of Interior's impact study assumes the obligation to publish 125,000 contracts per month. That is 1.5 million contracts per year for all entities (government organizations, ministries, municipalities and all organizations established).			
	(***) The original estimate of 44 minutes for manual anonymization of a contract based on the specific process in the Ministry of Interior. Realistically this process can last shorter time, approx. 35 minutes.			
	(****) Related ancillary material costs remain unchanged.			
	(***** ) The total number of people required to perform the publication is shown in the table. This is a rough calculation of the sum of jobs. In case of the distribution between the different entities the number of jobs would be even higher due to difficulties of optimization.			

Source: Atbon, a.s., Company's internal sources (April 1, 2017)



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