CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE
FACULTY OF ECONOMICS and MANAGEMENT

Diploma Thesis

Topic:

E-business as a means of trade expansion of a company

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Declaration

I declare that the diploma thesis on topic: " E-business as a means of trade expansion of a company " was written by me, by the help of specific literature and other sources which are included in the review of the used material, and by the help of consultations and advices with my supervisor Doc. Ing. Mansoor Maitah Ph.D.

In Prague 29th of November 2011

_____ Signature

Acknowledgement

I would like to give special thanks to Doc. Ing. Mansoor Maitah Ph.D. for his practical comments related to the writing of this thesis and for his kind behavior. Furthermore I would like to thank to my family for supporting me and anyone else who increased the value of this paper by bringing in any useful information.

E-business as a means of trade expansion of a company

(E-business jako prostředek k obchodní expanzi společnosti)

SUMMARY

This diploma thesis deals with the concept of digital business environment, its dynamic development, benefits and pitfalls, the different possibilities of use, analytical tools used for diagnosis of the environment where the e-business want to be implemented, and analysis of the enterprise Alpha considering the e-business integration.

The first part of the thesis is dedicated to the literature overview of the relevant theories. In the chapter one, the theory of the digital environment and the history of digitalization is discusses, in the chapter two the theory of online retailing takes the place and in the third chapter the main features of electronic business are discussed. Fifth chapter of the literature review starts to discuss the analytical methods used within this work, the basics of the financial analysis, the chapter six deals with the theory of the cost-benefit analysis and at the end of the theoretical part of this thesis, the definition of the swot analysis is stated.

The second part of the thesis uses the gained theoretical knowledge in the financial analysis of the Alpha enterprise. The theories of cost-benefit and swot analysis are used to determine the effects and characteristics of the planned project of digitalization of the Alpha company.

At the end of the diploma thesis, summary and discussion of the results takes place together with proposed recommendations as an outcome of this work

***Key words**: e-commerce, e-business, digitalization, sales channel, financial analysis*

SHRNUTÍ

Tato diplomová práce pojednává o konceptu digitálního obchodního prostředí, jeho dynamickém rozvoji, přínosech a limitech, různých možnostech využití, analytických nástrojích sloužících k diagnostice prostřední kde má být e-business využit a analýze společnosti Alpha, zvažující investici do projektu digitalizace.

První část práce je věnována vyjádření teorie na základě které je provedena druhá, praktická část této diplomové práce. První kapitola teoretické části se věnuje definici digitálního prostředí a historii vývoje digitalizace, druhá kapitola se zabývá teorií on-line maloobchodu, ve třetí kapitole jsou popsány hlavní rysy digitálního prostředí obchodu. Pátá kapitola literatury definuje analytické metody používané v rámci této práce, základy finanční analýzy, šestá kapitola se zabývá teorií cost-benefit analýzy a poslední je kapitola věnovaná definici a využití SWOT analýzy.

V závěru diplomové práce jsou shrnuty a diskutovány výsledky provedeného výzkumu společně s doporučeními pro firmu Alpha na základě celkového výstupu z této práce.

Klíčová slova: e-commerce, e-business, digitalizace, prodejní kanál, finanční analýza

Contents:

1. Introduction

The dynamic evolution of the modern World is no more only a constraint to be measured by statistics or further developed by scientists, moreover it becomes pattern of everyday life that is needed to be count with. What is considered one day as technologically modern could be the other day valued as technologically insufficient. The environment where the technology is considered to be a highly valued factor influencing competitive advantage is the business environment in general.

However the classical businesses conducted through physically based sales channels are more and more being considered as obsolete, business contracts on the highest levels in terms of scale are still conducted according to the the basic old ordinary methods. The tendency of technology implementation into global business environment results in the extreme number of retailers on the Internet.

The evolution of the digitalization of the world has even more dynamic trend of evolution than the World itself. With development of the Internet as the information distribution environment, the effect of the on-time technology implication into the business environment has the increasing value.

„The truly revolutionary impact of the Internet Revolution is not just beginning to be felt. But it is not information that fuels this impact. It is not "artificial intelligence". It is not an effect of computers and data processing on decision-making, policymaking, or strategy. It is somtehing that practically no one foresaw or, indeed even talked about 10 or 15 years ago; e-business - that is, the explosive emergence of the Internet as a major, perhaps eventually the major worldwide distribution channel for goods, for services, and, surprisingly, for managerial and professional jobs. This is profoundly changing economics, markets and industry structure, products and services and their flow; consumer segmentation, consumer values and consumer behaviour; jobs and labour markets. But the impact may be even greater on societies and politics, and above all, on the way we see the world and ourselves in it." [Drucker 2002,pp. 3-4]

2. Objectives and Methodology

The purpose of this work is to capture the concept of digitalization of the company and application of the gained knowledge on the exapmle of the Alpha enterprise.

The objectives of this work are divided into the following sections :

- To explain the theoretical background of the concept of digital environment, e-commerce, e-business, instruments for the analysis of the company's situation
- To evaluate the development of financial situation of the Alpha enterprise
- To evaluate the planned project of digitalization of the Alpha enterprise

In order to meet the objectives several steps must be performed, including:

1. Study of specific literature resources concerning the digital environment, e-commerce, e-business and to identify the main trends of digitalization
2. Study of specific literature resources concerning corporate financial analysis, cost-benefit analysis and SWOT analysis
3. Collection of the financial data from the Balance sheet and Income statement from the period of the years 2002 to 2010, needed for the design and realization of the financial analysis
4. Collection of the data describing the history of the enterprise stated in the Annual report from the period of the years 2002 to 2010, needed for the company description
5. Design of the financial analysis, selection of financial ratios in order to fit the Alpha company example
6. Financial analysis of the obtained data and representation of the development of results in the period of years from 2002 to 2010
7. Cost-benefit analysis of the project of digitalization
8. SWOT analysis of the project of digitalization
9. Discussion of the strong and weak points of the gained results in relation to the objectives of the Thesis

Hypothesis 1: Financial situation of the company allows realization of the project of digitalization without creating any significant financial or operational thread

Hypothesis 2: The enterprise is able to repay the total costs of the digitalization project in less than 1 year by the benefits gained by the project itself

The expected result of the research is that the enterprise Alpha is as financially vital as it can realize the process of digitalization with no significant financial or operational thread, that the enterprise is able to repay the total costs of the project of digitalization by the benefits gained from the project within one year and that the focus on the end-customer segment of the market in construction materials is perspective.

The evaluation of gained results within the financial analysis is developed by identification and illustration of the main trend in the development of certain financial ratios annual data. Description of the year differences or the important peaks or regressions tracked are emphasized and remarked. Furthermore, close relations and interactions between the financial ratios might be stated and the possible dependencies clarified.

The evaluation of achieved results within the cost-benefit analysis is managed by identification of expected costs and benefits of the planned project of digitalization and the further identification of the effects on the company.

In addition, synchronization of the data obtained from the annual reports of the enterprise with the output from the financial and cost-benefit analysis is performed in order to understand the history of development of the company.

All the important data sources used for this work are recorded in the review of used resources.

3. Literature overview

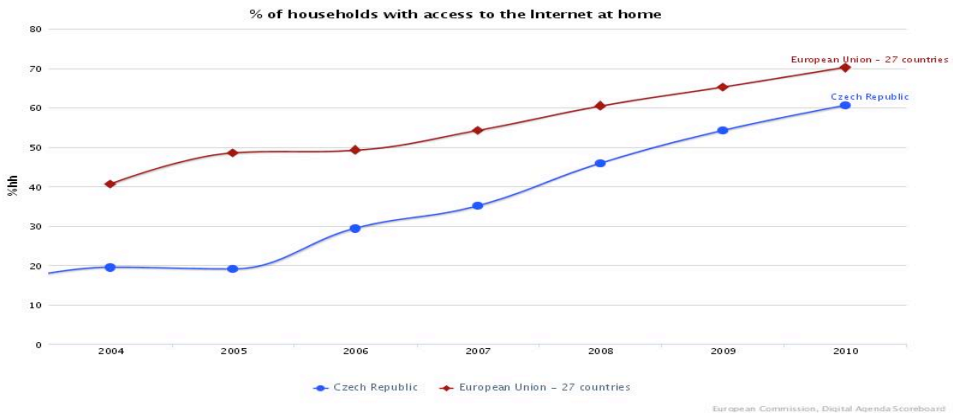
3.1 Basic definitions and concepts

Internet

The Internet era started as a U.S. governmental experiment in 1969. The first users were scientists, academic researchers and technical audience of government agencies. In the early 1990's, the Internet was commercialized and users started to interact in the World Wide Web (www). In this era, the term electronic commerce was created and whole concept began to rapidly expand. The process of very quick and mass expansion of dot-com organizations is reasoned by development of new technologies and e-commerce applications, from the business point of view, competitiveness and business pressure on the use of technology took its part as well. It is necessary to mention not just the business point of view of the Internet usage, but digitalization of households as well. At the beginning of the Internet era, the access to the online content was the matter of money, because as a new technology, it had its very high value and only multinational corporations and governments were able to use the Internet completely. As the development of newer digital technologies put the Internet between accessible services even for smaller business and there was still a very strong financial matter in the terms of acquisition, it began to spread between wide populations. There is an similar development in the communication technologies, more accurately, the cell phone use development, where at the beginning the expenses connected to mobile phone number acquisition were extremely high. Therefore, high acquisition costs of the access to online connection and computers between 1990 and 2000 made the Internet available for the most of the population usually via Internet cafes. [1]

Development of new technologies, digitalization progress and the expanding use of information and telecommunication technologies (ICT) have made the Internet very easy to access between 2000 and 2010 and the trend of number of people using it regularly has still growing tendency. There is a significant link of this fact with the fact of growing tendency in electronic and online services use as a regular part of the business (from the retailers point of view) and home life (from the customers view). [1]

Figure 3.1.1 Number of households with access to the Internet at home (%)



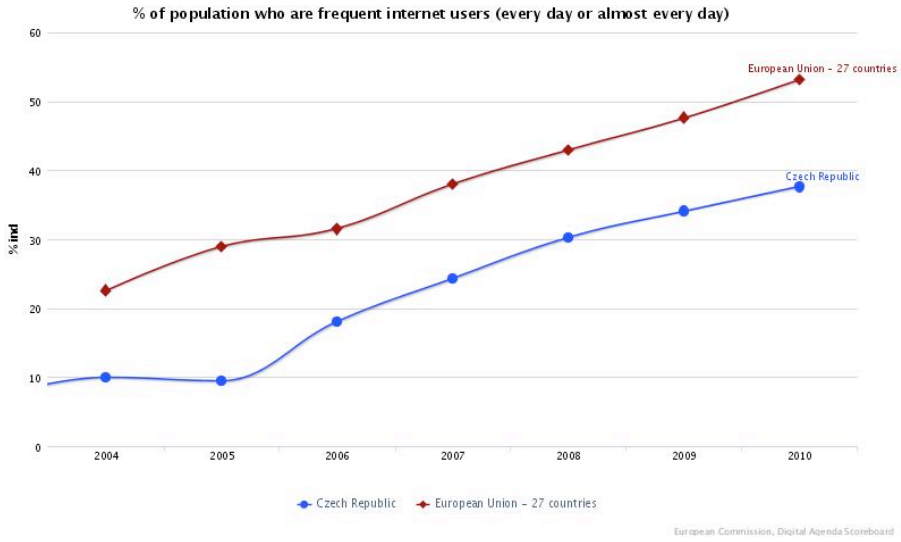
Source: Eurostat - Community survey on ICT usage in Households and by Individuals

In 2004, 19.4% of households had the access to the Internet; in 2010 it was 60.5 %. Compared to the average of the EU member countries where was it 40.5% in 2004 and 70.1% in 2010[Eurostat], the Czech Republic was often put into a position of digitally developing country.

To be more precise, for the commercial use, the key target group is not the part of population with the access to the Internet, but the proportion of population using the Internet frequently as it is possible to reach this target group with online commerce and online marketing effectively.

In 2004, 10 % of population of the Czech Republic used Internet every day or almost every day, in 2010, it was 37.6 %. Compared to the EU where in 2004 22.6 % and in 2010 53.1 % of individuals were regular Internet users. [3]

Figure no. 3.1.2 Number of frequent users of Internet (%)

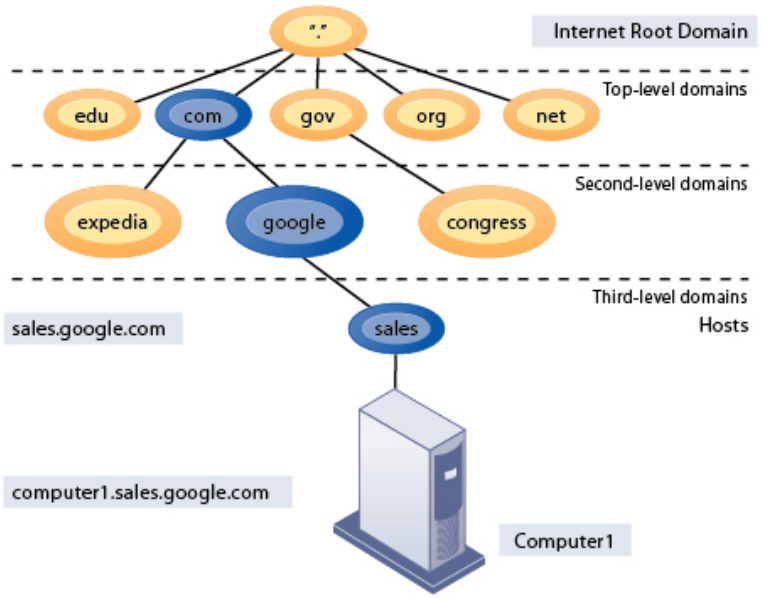


Source: Eurostat - Community survey on ICT usage in Households and by Individuals

The rising percentage of frequent Internet users points out at still running process of digitalization in the Czech Republic and EU, not only from the access to the Internet point of view, but also from the opinion of the reach and the frequency in use of the Internet. Evolution of the phenomenon of digitalization (Digital revolution) set up the groundings for the further Internet use in commercial and whole business development manner. [1]

The basis of the Internet is the TCP/IP networking protocol set. Every computer is allocated a special matchless Internet Protocol (IP) address, which is represented at this moment by four sequences of numbers varying from 0 to 255, as fro example in the address 207.46.250.119. The Domain Name System (DNS) is a scheme for translating IP addresses into names, such as google.com. DNS has a hierarchical arrangement that differs from the root domain, top-level domains, second-level domains, and host computers at the third level. [1]

Figure no. 3.1.3 – Diagram describing the Internet architecture and hierarchy domains



Source: [Management Information Systems" *IBAT College Learning Portal*]

The digital revolution

The digital revolution phenomenon is emerging every day of our life; it is an essential part of the modern World and key-driving subject of the digital economy formation. The digital revolution is visible in schools and businesses, at home and work, in hospitals, on roads and even in wars. Since the Internet and World Wide Web creation, the development of digitalization is has ascending trend year and the number of places influenced is continuously higher. [1]

The digital economy

Since a new technology was developed and has started to be in the game, all the world takes a turn on the intersection towards a new age. As a result of digital revolution, new digital business environment arises, with specific dynamics and patterns that have to be fully recognized by business in the terms of sustainability, increased competition and new technology implementation. The term digital economy covers a very wide spectrum of all digital technologies, including computers, software, digital communication networks and related information technologies. Sometimes it is called the new economy, Internet economy or web economy. Digital networking and communication infrastructures settled through the digitalization process creates a global platform throughout which people and organizations all over the World communicate, collaborate, interact and search for the information. [1]

Information asymmetry

The Internet digital environment limits the information asymmetry that occurs when one individual in a deal has more information regarding the transactions of the other individual. With the invention of Internet, information distribution became easier to be searched, found and available online. [1]

Digital Products

The online electronic marketplace has also importantly enlarged sales of digital goods and products that are able to be brought to a customer over a digital network. In contrast to classic physical goods, the marginal cost of producing another unit of a digital product is about zero, delivery costs over the digital network are low, whereas marketing costs are around the same and pricing can be modified according to supply and demand very quickly, without much additional costs. [1]

World Wide Web (WWW)

The World Wide Web is a facility delivered by the Internet that uses generally recognized norms for saving, storing, formatting, and displaying the information in a page presentation on the Internet. Web pages may include text, sound, video, graphics and animations, and may be connected to other online pages. The World Wide Web can serve as the foundation for new kinds of information systems, online information systems and furthermore the instruments of electronic business. [1]

ICT (IT)

ICT is an abbreviation for Information and communications technology or information and communication technology. It is often used as substitute to IT, abbreviation for information technology. ICT is wider form of IT, since it defines the role of communication technologies, telecommunication technologies (wireless signals, mobile telephone networks) and all the hardware and necessary software including audio-visual systems giving the ability to access, create, store, manipulate and transmit information. [1]

3.2 Electronic Commerce (e-commerce):

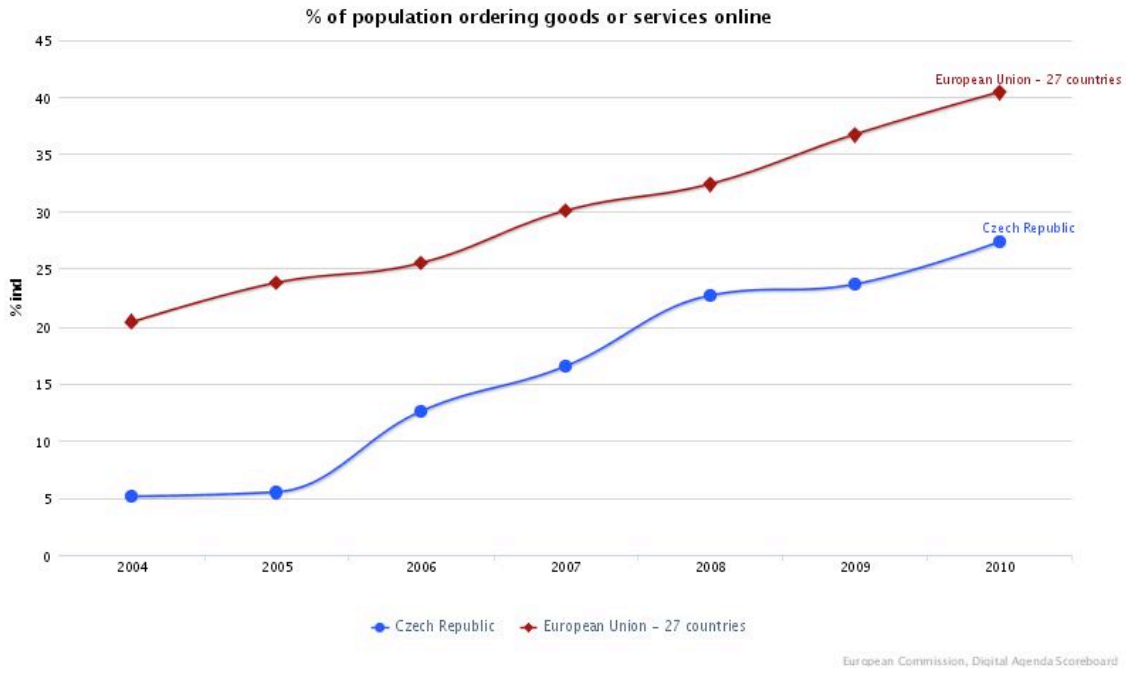
"E-commerce is the process of buying, selling or exchanging products, services, or information via computer networks." [Turban 2008, p.4]

We understand by this definition the focus of the e-commerce on three main business environment pillars, buying, selling and exchanging, through the electronic way of information distribution. If it is defined from the business process point of view, therefore the e-commerce does business electronically by completing business processes over electronic networks, thereby substituting information for physical business processes. Defined from the collaborative perspective, e-commerce is the framework for inter- and intra-organizational collaboration. [Weill and Vitale 2001, p.13]

3.2.1 History of the E-commerce

The history of e-commerce started with *electronic funds transfer* (EFT), developed in the early 1970's. Funds could be directed from one organization to another, however the use of this tool was enabled only for large financial institutions or business corporations. The *electronic data interchange* (EDI) came after EFT and enlarged the portfolio of electronic transfer by option of routine document transfer. EDI also enlarged the group of users from financial institutions to producers, retailers, services and many others. This systems were called inter-organizational system (IOS) applications. Lately were IOSs recognized by the high strategic value they had to companies. The first modern e-commerce applications were travel reservation and stock management systems. [1]

Figure no. 3.2.1 – Number of population ordering goods and services online (%)



Source **:** Eurostat - Community survey on ICT usage and eCommerce in Enterprises

E-commerce failures

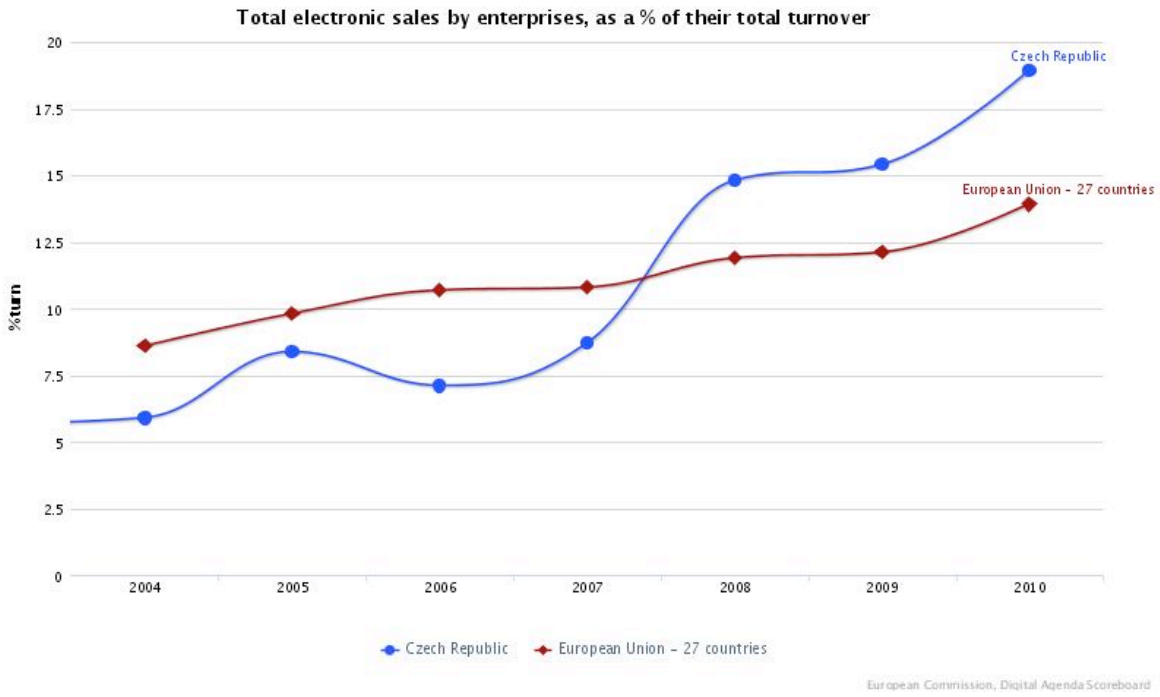
Beginning in 1999, a lot of e-commerce companies, mainly B2B and e-tailing ones, started to fail. According to the data form Strategic Direction survey (2005), 62 per-cent of dot-com companies lacked financial skills and 50% had a little experience in marketing field. The trend of e-commerce failures tends to decrease sharply from the year 2003 to present. [Turban 2008]

E-commerce successes

During the last 10 years the number of e-commerce firms rapidly increased and we witnessed the rise of extremely successful virtual business. The most successful ones are eBay.com, Google.com, IBM, Intel, General Electric and Wal-Mart.com. If we look on to eBay.com in more detail, we can se one of the biggest business successes in the history of the World, because of the use of the Internet as an unique business environment. Ebay.com was founded on 3.September 1996 as an online auction website and during that year the number of accomplished online auctions was 250000.Compared to the next year, the year 1997, it was just 12% , because the number of online auctions increased to 2000000. In 1998 the company had 30 employees and the revenues $4.7milion just in the United States market. In the first quarter of the year 2008, company had over 15000 employees, hundreds of million registered users and the worldwide revenues of $7.7 billion.

["Meg Whitman to Step Down as President and CEO of eBay" eBay, January 23, 2008]

Figure no. 3.2.2 – Total sales of companies (online) expressed as % of their total turnover



Source**:** Eurostat - Community survey on ICT usage and eCommerce in Enterprises

3.2.2 Competitive advantage of E-commerce

The dynamic development of the Internet, the expansion of digital business and online retail environment from 1990's created very flexible and efficient background for commercial activity. The unique characteristics of the digital commerce environment are defined within the next paragraph.

"*Ubiquity expands the size of the World market by adding new non-physical environment and developing new easy accessible marketing channels that simultaneously creates new branch of classic industry structure. Furthermore, it lowers costs and speed up all organizational processes by increased efficiency and allow implement new differentiation strategies. Global reach alter industry structure by lessen barriers to entry but dynamically enlarge the market at the same time. By increase of production and sales efficiency, lowers the cost of industry and firm operations and greatly enhance the international competition. Universal standards alter industry structure with lower barriers to entry and enhance competition within an industry. Drops down computing and communication costs and therefore drops down the cost of industry and organizational operations with creating opportunity for broad-scope strategies. Richness change industry structure by decreasing strength of powerful distribution channels, increasing competition of all market players, alter industry and firm operational costs by decreasing dependence on sales force and gives bigger importance to post-sale support strategies as a focus on added value of products sold. Interactivity changes industry structure by downgrading threat of substitutes through increased customization, lower industry and firm costs by diminishing reliance on sales power and allow differentiation strategies Personalization/Customization changes industry structure by decreasing power of threats of substitutes and increasing barriers to entry. Lower the value chain costs in industry and firm by decreasing dependence on sales power. Information Density alters industry structure by deteriorating powerful sales channels and moving the dealing power to consumer. It decreases industry and firm operations costs by reducing costs of gaining, processing, and distributing the information about suppliers and consumers. Reduced search and transaction costs differences are very limited due to information asymmetry elimination as a basic characteristic of the Internet environment. Price discrimination is no more possible because of the ability of online price and seller portfolio comparison. Dynamic pricing is an ability to change prices according to seller's supply situation or customers demand characteristics. Disintermediation - One of the greatest features of online commerce environment is shortening the supply chain by removal of middleman intermediaries such as retailers or distributors. With the rising trend of electronic commerce environment, there is disintermediation as one of the most important characteristics greatly enhanced competition in the general business environment. Web site visitor tracking - Online retailers has unique ability to track the customer behavior on their website because of the unique tools of modern customer tracking management systems, very often implemented to the administrative environment of the website as a basic feature. Retailer is able of further complete customer behavior analysis and probable customer behavior prediction in order to increase sales or adjust marketing actions*."

[Andam, Zorayda Ruth. E-commerce and E-business. Kuala Lumpur, Malaysia: United Nations Development Programme-Asia Pacific Development Information Programme, 2003]

3.2.3 CLASSIFICATION OF E-COMMERCE

E-commerce retailer types:

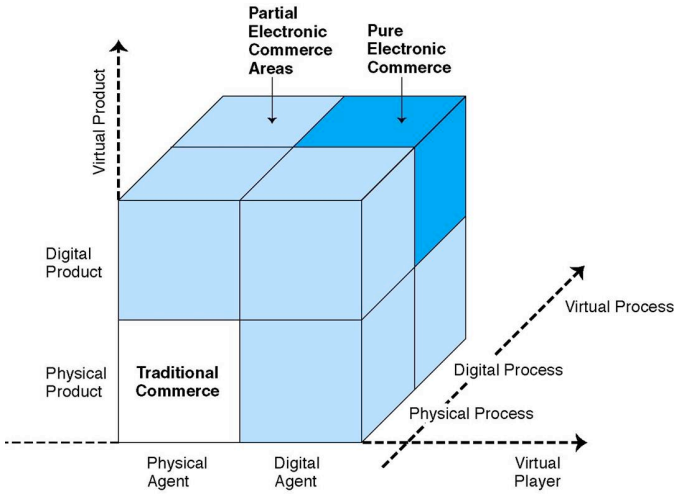
According to the level of business digitalization, there are three main types of the organization from the e-commerce point of view. We can define them by the level of relation to virtual way of conducting business.

Brick-and-mortar (old economy) organizations are defined by purely physical way of business processes and physical product distribution.

Click-and-mortar (click-and-brick) organizations manage some virtual business activities as an additional marketing or distribution channel.

Virtual (pure-play) organizations are involved just in virtual business environment.

Figure no. 3.2.3 – Dimensions of E-Commerce



Source: ["Electronic Commerce." Berbagi Ilmu Komputer Dan Cerita Rohani. Web.]

Graph explains the possible patterns of three dimensions. A product can be defined as physical or digital, the process can be physical or digital and finally the delivery method may be either physical or digital too. These possibilities create a system of eight cubes, each which is defined by type of product, process and delivery. If there is at least one digital pattern, we consider the situation e-commerce. [1]

Electronic market (e-marketplace)

"E-marketplace is an online marketplace where buyers and sellers meet to exchange goods, services, money, or information" [Turban 2008,p.6]

We understand by this definition that players on the e-marketplace are buyers and sellers who either demand or supply their products online via Internet.

Non-Internet E-commerce

The very part of electronic commerce is done through the Internet, however there is small percentage of businesses done in non-Internet e-commerce environment. These are Intra-organizational and Inter-organizational information systems.

Intra-organizational information system is an e-commerce environment that enables online business activities within the organization.

Inter-organizational information system (IOS) is a communication system that allows information flow between two organizations. (Turban 2008)

E-commerce types:

Organization of the e-commerce is done by the type of the relationship and by the character of the transactions between participants.

Business-to-Business (B2B) is categories containing either businesses or other organizations strictly tighten to the electronic business environment. In 2006, 85% of E-commerce quantity was B2B.

Business-to-Consumer (B2C) contains retail transactions of products or services from businesses to individual customers. This business model is often called e-tailing.

Business-to-Business-to-Consumer (B2B2C) could be explain by situation where business deliver product to a client company. Client company has its own consumer portfolio and provide clients with product bought from the business. Added value plays very important role, it distinguish successful business among the competitors. Example is Importer-to-retailer-to-consumer, example BMW Czech Republic-to-Regional retailer-to-Consumers.

Consumer-to-Business (C2B) group includes persons who sell the goods and services to organizations who seek vendors to bid on products or services.

Mobile commerce (M-commerce) refers to all transactions and activities realized in full or partial wireless environment. M-commerce includes financial services conducted through mobile network, telecommunication (payment billed as a telecommunication expense), information services (information about timetables in public transport) and services or retail conducted through the cell phone

Location-based commerce (L-commerce) are transactions targeted to individuals in a particular location, at specific time, under specific conditions.

Intra-business e-commerce category includes all internal organizational actions. It is defined as exchange of goods, services and information between various departments and individuals within particular organization. Corporate portal instrument is often used in larger companies in order to provide employees products and services on internal level.

Business-to-Employees (B2E) is a subsection of Intra-business e-commerce group that delivers products, services or information to individual employees.

Collaborative commerce (C-commerce) is type of electronic business when persons or alliances from different locations communicate or collaborate online in orders to design an output together.

Consumer-to-consumer (C2C) is one of the very common type of electronic business where are particulars able to sell new and used products to other particulars or furthermore, set up an auction in order to sell the product for as high price as somebody is willing to pay. Ebay.com is a perfect example of environment where individuals interact between each other on the business level.

Peer-to-Peer (P2P) is a specific type of e-business where the process of buying and selling is realized between two networked computers. The products in this business category are digital, for example music and video in the electronic form.

E-learning (E-training) is training and formal education delivered online. A lot of companies use this model in order to secure training and retraining of the staff. There are many virtual universities and universities offering online-degree completion.

E-government (G2B, G2C) is a type of e-commerce where a government object buys or sells products, services or information from or to businesses (G2B) or directly to particular persons (G2C).

Non-business e-commerce. There are many non-business organizations and institutions using electronic commerce so as to reduce their expenses, to speed-up internal processes and to improve their customer service.

[1]

3.2.4 Revenue and Business Models in E-Commerce

The revenue model is used to describe the revenue generating procedure of the company. The business model is used to describe the whole process operated in order to gain the profit.

Revenue models

"Revenue model is a description of how the company or an e-commerce project will earn revenue." [Turban 2008,p.21]

There are six basic revenue models according to the way the company operates in order to gain income.

Value Chain

Value chain is the series of value-adding activities that an organization performs to achieve its goals, such as making profit, at various stages of the production process. (Turban 2008,p.19)

Value Proposition

Value proposition refers to the value the firm offers to a specific target customer segment and from the company point of view value proposition represents the benefits a company can derive from using electronic commerce. [Turban 2008, p.21]

In other words, value proposition reflects all the benefits that an organization could derive from the use of the e-commerce model and all the advantages including the intangible ones and non-

quantitative ones. It is very useful to include the value proposition in the marketing plan of any output of the company. In other words, it is a description of the realization process behind the possible revenue stream and if successful, with the profit gain at the end.

Types of E-commerce revenue model:

Sales model

Under this business model is operating large number of organizations. Companies make profit through selling merchandise and services throughout their Web sites. Very good example is most of modern e-shops or Amazon.com.

Transaction fees

A company generates revenue form the commission received that is founded on the quantity of transactions made.

Advertising fees

Charges from the banners and other advertisement on the site are the main source of income. The very best example is Google.com, which became incredibly successful by applying this business model. Very large volume of connected customers is needed in order to increase the value of the advertisement company offers as a product.

Subscription fees

Subscription, on other words fixed periodical payments, is a revenue model where customers pay regularly in order to get the service, usually monthly. There are many types of monthly paid access to websites, malls or forums. Perfect example is Trainingpeaks.com - online training diary for sportsmen.

Affiliate fees

Affiliation has the meaning of giving reference or to refer customers to other Web sites. This is very innovative way of how to gain revenue with a very low level of costs at the same time. Large database of consumers increase the company's abilities to refer them to somebody who paid it for and therefore the opportunities to success with this type of e-commerce model.

Other revenue sources

This category contains all the types of fees from product or service licensing. Contracts are usually paid as an annual fee or as a per usage fee. A significant share of Microsoft organization revenues represents earnings from the licenses on the computers, workstations and all electronic devices that has Microsoft software installed on. [Turban]

E-commerce business model

"Business model is a method of doing business by which a company can generate revenue to sustain itself." [Turban 2008, p.18]

Functions of the e-commerce models

The main functions and objectives of e-commerce business models:

- Enunciate a customer value proposition
- Recognize the market segment
- Delineate the venture's specific value chain structure
- Approximate the cost structure and profit potential
- Describe the company's positioning within the value network connecting suppliers, customers, potential complement possibilities and competitors
- Express the company's competitive strategy

[*Turban 2008, p.19]*

Figure no. 3.2.4- Basic E-commerce functions

Source: [E-Commerce | Anahata Technologies]

The diagram above shows the basic B2C e-commerce sales model where a customer places his order into the online shopping cart, then chooses the way of payment. If we are talking about a fully electronic process, customer pays via credit card online. The order is completed and system sends notification about completed procedure both to the customer and merchant in the online shop. The order proceeds into the warehouse, where the product is prepared for shipment and ready for the pick-up by shipping carrier that delivers the order directly to the customer.

The very important trait of electronic business is the possibility of new business models creation. By the type of the model, company sets up the position in the value chain.

Business-to-customer e-commerce, electronic retailing or just shortly e-tailing is defined as selling managed online, over the Internet. Online retailers or e-tailers are salesmen who conduct the selling process over the Internet via electronic e-shops, electronic shops.

Despite the failure of many dot-com companies, the quantity and share of products and services sold online is increasing rapidly. The very important factor, influencing the difficulty of setting off an e-commerce business is increasing number of web developers and programmer companies who supply the market with pre-fabricated software for e-commerce. More over, if considered the significant percentage of this type of software is free to download, free-of-charge to use and much more simple than whole expensive e-business solutions, the number of small new online businesses is rapidly increasing. [1]

E-Commerce B2C Business Models

Online direct marketing is the most simple e-commerce business model representing selling products or services online. Sales might be done from producers to end-customers, in order to eliminate intermediaries or brick-and-mortars what leads into ability of lowering the price for the customer or increased profit margin for producer. Sales might be done also from manufacturer to retailer to customer so as to increase efficiency of distributing channels like it is in most companies selling digital products and services. This model is practiced in B2C and B2B type of electronic commerce (e.g. *Godiva.com, Wal-Mart.com)*

Viral marketing is a model where organization increase the brand awareness and generate profit from sales by word-of-mouth marketing in which customers endorse a product or service to friends or other people. Customers send messages to other people or employ friends to join certain programs in order to have some advantages for their own purchase.

Find the best price is a very common model of electronic commerce that significantly increases the bargaining power of customer by increasing the competition between companies in price of the product. In other words it is search engine e-commerce model that let the customers to make comparison of price of one product sold over many companies and choose, if wanted, the lowest price founded. According the dynamic development of e-commerce, the find the best price model has started to be associated with validity of data provided according to many online sellers who very often can not sustain the price offered and use the search engine just to make the seller more visible, but on the other hand decrease the good reputation of the particular search engine. With no entry barriers to the market and very easy process to start an online business, the relevance of the data provided by online sellers is a big problem of modern e-commerce (e.g. *Zbozi.cz)*

Name your own price or demand-collection model is a model creating an business environment where customer's willing to pay price meets with the supplier's willing to sell price. The role of this environment is to match the two prices to satisfy customer and supplier each other.

Online auction is another well-known electronic commerce model where customers or business sell to other customers or business. Products are auctioned online, customers place the bids and the highest bid represents the price for the sold product. (e.g.: *Ebay.com)*

Product and service customization or online customization in other words is model based on ability to configure online the final product precisely according to the customer's

needs. Custom and zero unnecessary characteristics of the product create the value added of the final product and make this e-commerce model very useful and sustainable (e.g. – *Alza.cz)*

Direct sales from manufacturers is a model where producers sales directly to end-customer and thus manage distribution channels on their own. There is a big advantage of high profit margin, since all the intermediaries are eliminated, but on the other hand, there are additional expenses connected to own marketing program and limitation of distribution channels (e.g. - *canyon.de)*

Social networks model is becoming very important in the modern electronic commerce. If there was a need of online presentation of a company or even create e-commerce model in order to stay competitive in the last 10 years, then now is a need to present the company via social network as well. The boom of social networks in the past few years made this model extremely important in reaching the target group of young customers by advertising via social networking. Social networks are mainly used as an additional sales or advertising channel of an organization (e.g. - *Facebook.com)*

Membership is very popular content or discount provider based model where product represent access to a content or discount for another product or access to an advantage (e.g. *Trainingpeaks.com)*

Discount servers are very popular due to on-going economic crisis. Combination of opportunity of high discount to customers and opportunity of particular (problematic) product sales are the key elements of this e-commerce model.

Value chain service providers represent very important segment of the market in online services such as payment and logistics (e.g. *Paypal.com* or *Ups.com)* [1]

E-COMMERCE B2B BUSINESS MODELS

Group purchasing or demand aggregation e-commerce model draws out the advantage of the large quantity orders made usually by large organizations and therefore generate pressure on smaller companies. Third party finds SME's (small-to-medium enterprises) and individuals aggregate all small orders to create a high quantity, negotiable for the best deal. Therefore using the model of group purchasing, even a small company or business is able to get discount and stay competitive (e.g. *Letsbuyit.com)*

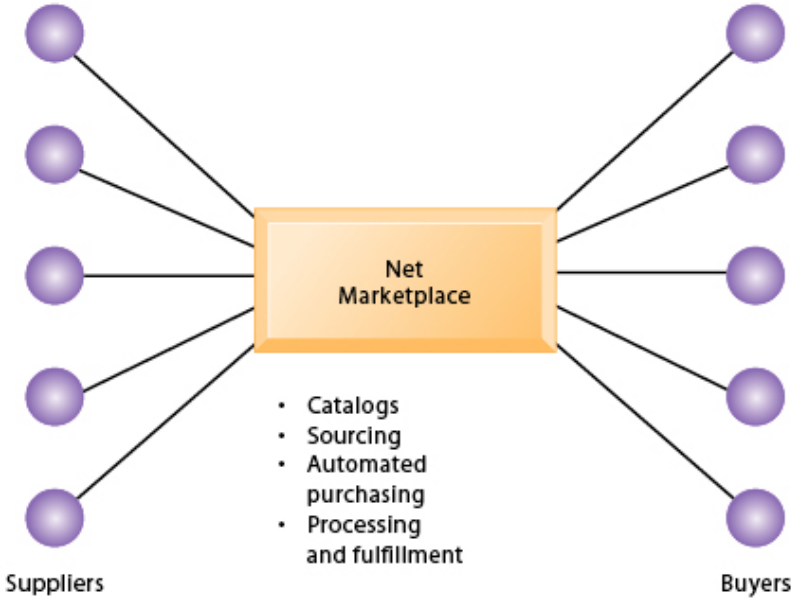
Affiliate marketing is an agreement between business partners where the marketing partner refers customers to the website of the selling company. It is done mainly by placing the logo or banner ad on the website of the affiliated company. For example: Amazon.com has over than 1000000 affiliates (Hoffman and Novak 2000). In the moment a customer referred to the selling company makes a purchase with this company, affiliated partner receives a commission and creates virtual commissioned sales force (e.g *Amazon.com)*

Electronic tendering systems, also known as reverse auctions or online bidding systems, enable large organizational private and public buyers to make large purchases from the volume and value point of view. Reverse auctions secure the fair tender process; therefore such model is very often used by government, where most of the procurement must be clear and visible.

Private industrial networks or private exchanges – These are typically consisting of a large firm using an extranet to link to its suppliers and other key business partners.

Exchanges: Separately owned third-party online marketplaces are able to connect thousands of suppliers and buyers for immediate spot buying. In some cases two party agree on exchange or bartering in order to buy the competitive advantage of the other party, caused by own in scarce production and competitive disadvantage. [1]

Figure no. 3.2.5 – Net Market Place



Source : [MANAGEMENT INFORMATION SYSTEMS. IBAT College Learning Portal.]

E-marketplace or e-marketplace in the other words is an online-based marketplace for many various market players such as suppliers, buyers or investors. Online marketplaces are industry owned or function as separate intermediary business among buyers and sellers, gaining profit from transaction charges or services to customers. E-marketplaces might market direct products (consumed in a production process of the final products) or might sell indirect products as well. E-marketplaces might support contractual buying based on long-term associations with assigned suppliers, or might reinforce short-term spot purchasing, where products are bought based on current needs mainly in smaller amounts and from many different suppliers. Online marketplaces might serve vertical markets for particular industries or horizontal markets, by products and services for many different industries. [1]

E-COMMERCE PAYMENT SYSTEMS

With expanding trend of electronic commerce and linked technology development, wide spectrum of specific electronic payment systems have been developed in order to make customers able to pay for the merchandise electronically on the Internet, without having a need of physically visit the brick-and-mortar store or going to the bank to confirm the payment. The term **E-cash** was created, as to refer to online form of the money, used for online payments for online purchases. These are the main types of the digital payment system:

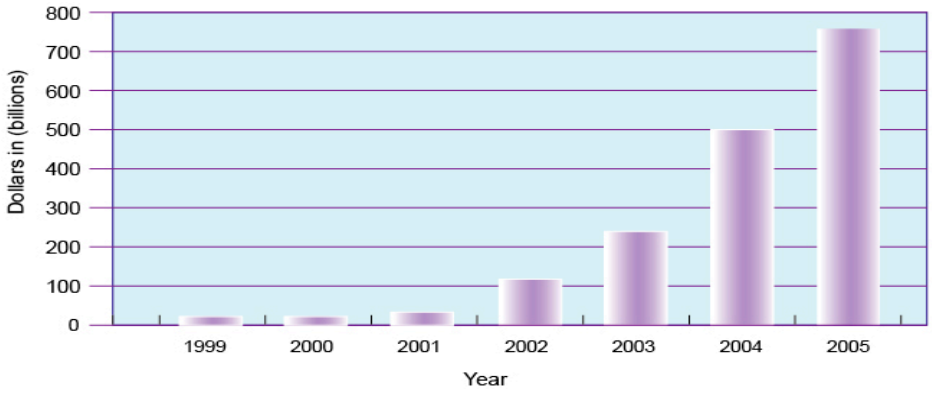
Digital credit card payment systems spread the usefulness of credit cards so as to be utilized for online shopping payments, providing mechanisms of verification and money transfers from customers bank account to retailers bank account all by non-physical transaction. As there is a need of credit card identification number and personal data online fulfillment, therefore there is an apparent thread in the form of misuse of sensitive personal data.

Digital wallets are based on the information storage and its click-on-trigger use. Credit card or proprietor identification information are provided at an online seller site's checkout interface that transcripts the raw information from the transfer onto the checkout page that is visible for the customer. Digital wallet makes paying for the shopping over the Internet more efficient by removing the need for customers to frequently again submit their personal data into order forms. The worldwide leading player in the secure digital wallet payment system is PayPal.com, newly purchased by Ebay.com. [2]

3.2.5 E-commerce Security

As the E-commerce is defined as business transaction between two sides, the buyer and the seller that are realized digitally and online, instead of personally or throughout the telephone. The buyer uses an electronic instrument or credit card number in order to substitute cash form of money, to pay for goods or services online. To secure electronic payments spreads out beyond the world of Internet to mobile phones and television digital receivers. Subsequent issue linked by online buying process is an electronic payment processing. In the role of the online seller, as an alternative of going to the bank with payments, bills or instead of using telephones to authenticate credit cards, merchants use the Internet to get attached with financial networks for payment confirmation.

Figure no. 3.2.6 - The average annual worldwide damage from digital attacks (in billion $US)



Source: ["MANAGEMENT INFORMATION SYSTEMS." *IBAT College Learning Portal.*]

This chart presents estimates of the average annual worldwide damage from digital attacks since 1999. Digital attacking types included in this chart are hacking, malware, and spam distribution.

[2]

Legal Issues - Directive 2000/31/EC

Considering the online marketplace for goods and services one of the key issues in tyring to make the European Union the most competitive and dynamically developing economy in the world **European Union Electronic Commerce Directive** or "*Directive 2000/31/EC of the European Parliament and of the Council of 8th June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market*" , was accepted in 2000, setting up an Internal Market structure for electronic commerce within the European Union, that provides legal confidence for both business and consumers. Directive ascertains consistent rules on questions as the clearness and information obligations for online service suppliers, business communications, and electronic agreements and defines borders in responsibility of intermediary service suppliers.
Internal Market clause assures the correct operating of the Internal Market in the field of electronic commerce and defines information society services as a subject to the law of the Member State, in which the service supplier is recognized.

*[*European Commission » Internal Market » Online Services. *EUROPA - European Commission - Homepage*.]

3.3 E-BUSINESS

3.3.1 Key terms

Electronic Business (e-business):

"E-business is the use of the Internet and other information technologies to support commerce and improve business performance" (Turban 2008 p.4)

Generally the e-business widens the definition of e-commerce. It is not just the buying and selling of goods and services, but in addition servicing customers cooperating with business partners, and managing electronic transactions within an organization. Modern firms increasingly move to the Internet for the reason of it provides increased flexibility and low-cost platform for connecting to other firms. For the purchase process of source goods and negotiation with suppliers, procurement in the other words, companies might use the online business environment to the low-cost product allocation, order placement and payments making processes.
To conclude, E-business denotes the utilization of digital technology and the Internet to perform the main business processes in the organization. E-business contains motions of the internal management of the firm and activities of coordination with suppliers and other business partners.

[2]

E-business environment

The technological, economic, societal and legal factors created highly competitive business environment that is often characterized by the increased power of customers, opposite to classic brick-and-mortar business environment where the companies had more opportunities against consumers. With the rise of digitalization process, the distances that the information has to overcome practically vanished. This fact gave the consumers significant power in order to view the whole market together at one place and the ability of comparison of prices and services linked. [1]

Most of the companies tend to measure their performance regularly, contrasting it to the financial analysis output, company's mission, vision, objectives and plans. Unluckily, it does not matter not only what a company does, but what the other players on the market do. Therefore the performance of the organization depends on the external factors as well as environment creates pressures on all participants and also a meaningful level of uncertainty and unpredictability. [2]

E-business vs. E-commerce

The term electronic business and electronic commerce are often used interchangeably, however each represents different concepts of ICT use in the business environment. E-commerce defines use of ICT as a means of inter-business or inter-organizational and B2C transactions enhancement. On the other hand, E-business points out the main focus on particular business or company with the main aim to enhance the particular business or company performance by converting classic physical internal processes into digital form. [2]

Information System (IS)

"An information system is a set of interrelated components that collect or retrieve, process, store, and distribute information to support decision making and control in an organization." [2]

Information systems are also used for problem analysis and solving, visualization of multifaceted topics and new product development.

"**Information** is **data**, or raw facts, shaped into useful form for humans." [2]

There are three main actions of an information system throughout the final shape of information useful for the organization is created. Input of the information covers raw data allocation and collection, both from internal and external environment of the enterprise. Processing of the data can change the data from the raw form into a valuable form for the company for further use. Output stage of the information lifecycle within the information system represents distribution of the converted data to people using it or for further activities based on the processed information. In order to have the data processed usefully, accuracy in definition of processing stage is crucial for the correct output. The set-up of the input and processing stage is done through feedback analysis after a measurable amount of data output. [2]

From a business point of view, an information system represents a valuable tool utilized in the company's value creation process. There are many issues that information systems support linked to an enterprise performance enhancement such as an increase of profit or a decrease of costs achieved by increased quality of data distributed to the management and as a result more efficient management decisions and higher firm profitability. The main determinant of the design of information system is an information value chain where the raw data are methodically gained and processed through numerous specific stages that add value with each stage completed. There is a subject to be discussed in every business, i.e. how will the investment improve profitability of the enterprise in an information system. Once this issue is solved, the value of the investment with respect to the company needs might be defined. [2]

DIGITAL ENTERPRISE

Within an ideal digital enterprise the majority of the company's important business associations with customers, suppliers, and employees are digitally supported and facilitated that makes the communication easier and cost reducing. The essential business processes and related responsibilities are digitally driven through internal digital networks that lead to increased effectiveness of internal processes as well as management of key corporate assets such as core competencies and financial assets, done in a digital way. Enterprise with digital patterns is able to do business 24x7, because the system is available 24x7, linked to the electronic retail there is a massive increase in sell-opportunity compared to a classic physical retailers. Another important factor influencing conducting business is the geographical position of the buyer and the seller that basically disappeared as a result of the reach characteristics of the Internet and the online business. Use of digital technologies on the corporate level significantly changed the worldwide business environment and some of the large online enterprises would not even exist without use of information systems. Information technology became key factor influencing strategic business objectives achievements. The capability of an enterprise to use information technology is more often

tangled with the capability of the enterprise corporate strategy implementation. These are the main advantages of corporate IT implementation:

- **Operational superiority** represents increased efficiency, productivity, and improved changes in the way of doing business and linked management behavior.

- **Development of new products, services, and business models:** Information technology integration develops abilities for products, services, and new ways of being involved in the business.

- **Customer and supplier closeness** describes an enhanced communication with and service to customers. Raise in revenues with improve in communication with suppliers lead up to lower costs.

- **Improved decision-making:** It is crucial for business managers to have precise and in-time information for making decisions that will the company benefit from in the best possible way. Verdicts based on luck and forecasts lead to raise of costs, slower business processes and loss of customers

- **Competitive advantage** is the most discussed issue in modern over-competitive market. Every business has to have some competitive advantage in order to survive on the market. Information systems implementation lead to lower costs and therefore lower retail price opportunities compared to competition

[2]

3.3.2 INSTRUMENTS OF E-BUSINESS

Cloud computing

Cloud computing is one of the most popular marketing and business connections in the IT industry. Cloud computing is the sharing of hardware and software resources over the network. The name cloud was derived from the shape of the diagrams defining each cloud systems, looking similar like a cloud. Advantages of these systems are increased power (Sharing hardware resources allows more power to redistribute among users), increased safety and privacy (The entire data center is secured better than a computer) and increased mobility of users. The user can connect to the data center anywhere, regardless of platform (PC, mobile phone, car, etc.). There are many multinational companies using this technology innovation such as Goggle, Microsoft, Dell or Amazon.com, each of them works with different final application. Operating on the Cloud is a cost-efficient access to technology and information distribution, it speeds up the internal processes and makes the companies more competitive. In the other words, Cloud computing deliver and take the ICT to the next level. [1]

Figure no. 3.3.1 – Cloud Computing Scheme

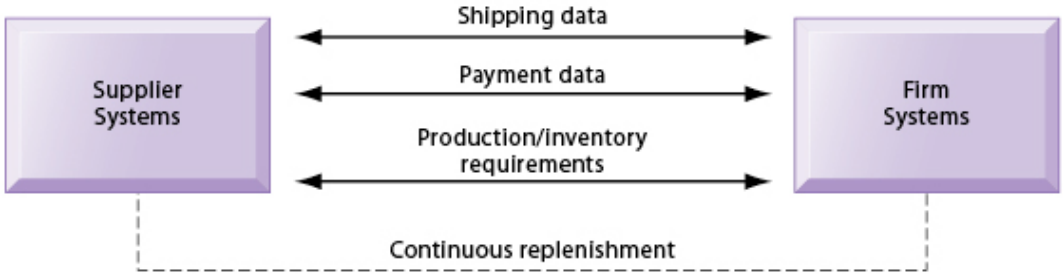
*Source: [*Social Media Magic | Optimized Marketing Strategies and Services | Managed Turnkey Social Media Marketing Services."]

EDI

"Electronic Data Interchange (EDI) is the electronic exchange of business documents in a standard, computer-treated, universally accepted format between trading partners." [2]

The feature of the last step of digitalization of the business environment enables trading partners to agree on data standardization in order to speed up business processes, lower the costs of processes and employees in maintenance. Organizations use the EDI in order to automate transactions for the B2B electronic commerce and continuous inventory replenishment. Suppliers are able to automatically send data about shipments to buying firms. The buying firms use EDI in order to deliver production and stock requirements and payment data to suppliers.

Figure no. 3.3.2 – Electronic data Interchange, the basic ways

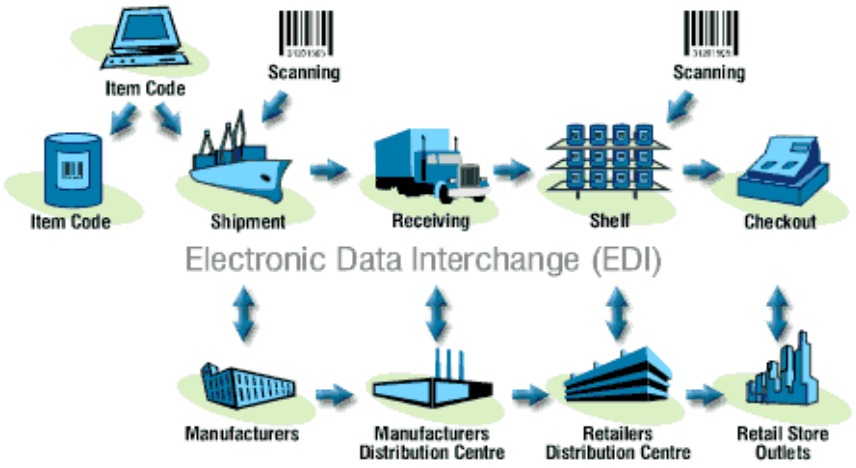


Source: ["MANAGEMENT INFORMATION SYSTEMS." *IBAT College Learning Portal.*]

Good example is the system of labeling standards (barcodes). Further use of barcodes on both sides of business partners simplifies identification of products, develops ability to track the shipments and makes the whole communication of business participants easier. Another very useful example of EDI is E-invoicing, invoices in electronic form sent automatically to predefine process after accomplishment of another process. For example after process of outward shipment of products from a producer to a B2B partner, information system of the

producer generates invoice automatically and sent the invoice directly to B2B partner's information system. [2]

Figure no. 3.3.3 – EDI-circle in more detail



Source: ["GlobalScorecard.net - Guide to ECR Concepts."]

E-business processes

As an initial step in describing all the processes it is clear that it has a lot to do with the Information Systems. *"Business process refers to the manner in which work is organized, coordinated, and focused to produce a valuable product or service."[2]*

In other words Business processes represent the unique ways in which companies coordinate work, information, and knowledge, and the ways in which management chooses to coordinate its work. That means every business can also be seen as a collection of business processes.

Therefore the design and coordination of these processes highly depend on the performance of a business firm. Many business processes are tied to a specific functional area, i.e sales and marketing, while others have access to many different functional areas and need coordination across departments.

The most general description of such business processes can be classified as:

Production processes - these might involve procurement, order and replenishment of stocks; payments; electronic links with suppliers; production control, etc.

Customer-focused processes – covering promotional and marketing efforts, selling over the Internet, customers' purchase orders and payments, customer support, etc.

Internal management processes - represented by employee services, training, internal information sharing, video conferencing, and recruiting. Electronic applications are able to enhance information flow through production and sales forces to improve sales force productivity. Workgroup communications and electronic publishing of internal business information have been recently seen as being more efficient. [6]

Information systems enhance business processes in basically in these ways:

- *Increasing the efficiency of existing processes*
- *Allowing entirely new processes that can transform the business*

According to types of Business Information System, no single system can provide all the information the company might need. Even smaller enterprises have usually a collection of different systems like e-mail systems, sales tracking systems, etc. Different systems can be described through:

- **A functional perspective that identifies** systems by their major business function
- **A constituency perspective** identifying systems in terms of the major organizational groups that they serve

*There exist also four main types of information systems that serve different **functional** systems:*

- **Sales and marketing IS** are designed to help the firm with marketing processes (e.g. identifying customers for particular products or services, promoting products and services, etc.) and sales processes (selling the goods and services, placing orders, providing customer support, etc.).
- **Manufacturing and production IS are concerned about** the planning, development, and production of products and services, and controlling the flow of production.
- **Finance and accounting IS** is used to keep track of the firm's assets and fund flows.
- **Human resources IS** maintain employee records, track employee skills, job performance and training, and support planning for compensation and career development.

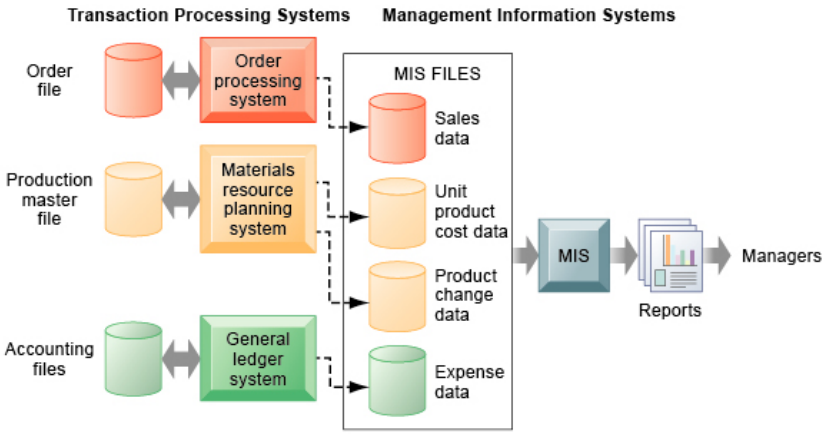
*From the point of view of a **constituency perspective there** are four main categories of systems:*

- **Transaction processing systems (TPS)** represent one of the basic business systems serving to the operational level of the company by recording the daily routine transactions required to guide business, e.g. payroll and sales receipts

- **Management information systems (MIS)** offer to middle managers' interests a relatively good and synoptic solution by providing current and historical performance information to help in planning, controlling, and decision making at the management level. MIS typically transform TPS data to more familiar shape and present regular reports on the firm's basic operations.

[2]

Figure no. 3.3.4 – Representation of TPS and MIS structures



Source: ["MANAGEMENT INFORMATION SYSTEMS." *IBAT College Learning Portal.]*

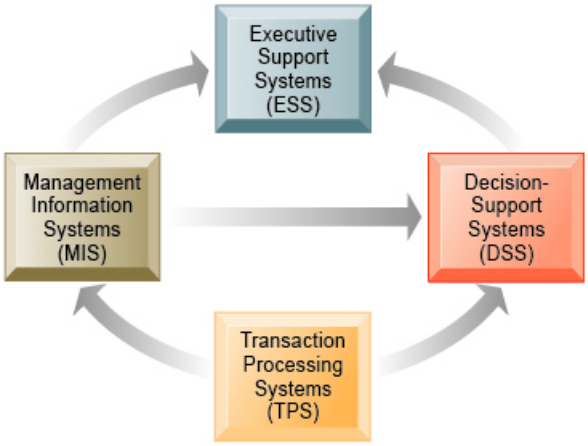
- **Decision support systems (DSS), or even sometimes labeled as** business intelligence systems, serve to help managers with non-routine extraordinary decisions that are unique, rapidly changing, and without the possibility to be specified in advance. The difference between DSS and MIS is the more analytical approach like using a variety of models to analyze internal and external data or compress large quantity of data for analysis.
- **Executive support systems (ESS)** poses a generalized calculations and communications environment that senior managers appreciate namely due to possibility to address strategic issues and identify long-term trends in and out of the firms environment. Like DSS, ESS address non- routine decisions usually requiring judgment, evaluation, and insight because there is no agreed-on procedure for arriving at a solution. ESS focuses mainly on graphs and data from any sources through an interface that easily corresponds to the needs of senior managers. Usually information is delivered to senior executives by a portal that uses Web interface to preserve integrated personalized business content.

[2]

To sum up, in the ideal state these constituency-based systems are interrelated. (See figure no. 3.3.5 below) TPS are typically a main source of data for other systems, whereas ESSs are only a recipient of data from lower-level systems and also from external sources.

[2]

Figure no. 3.3.5 - Interconnection of constituency-based systems



Source: ["MANAGEMENT INFORMATION SYSTEMS." *IBAT College Learning Portal.]*

The vast majority of the different systems in the company have interdependencies. TPS are major providers of information that can be required by many other systems inside the company, and these as a result produce information for other systems. These various types of systems are loosely coupled in most business firms, but there is increasing tendency in firms' behavior to use new technologies to integrate information that might reside in many different systems.

ENTERPRISE ENHANCE SYSTEMS

Both technical and behavioral views of companies complement one another. While the technical view can describe how hundreds of firms in competitive markets combine capital and labor force with information technology, the behavioral view is about how technology affects the organization's inner workings.

Nowadays all modern firms can be seen as bureaucracies sharing some essential characteristics: clear division of labor, hierarchy, explicit rules and procedures, unbiased judgments, technical qualifications for positions, and maximum organizational efficiency. In addition all firms tend to develop routines and business procedures, own politics, and cultures. In relation to politics and policies brought by individual firms any concept has to reflect the political struggles due to divergent concerns and perspectives of individuals and groups within the firm. Political resistance is therefore one of the great difficulties of bringing about organizational change.

Organizational culture deals with the set of fundamental assumptions about what products the firm should produce, how it should produce them, where, and for whom. Firms´ culture is a mighty unifying force that restrains political conflict, but on the other hand the technological change possibly threatens commonly held cultural assumptions that usually meet great resistance.

It is no doubt that there is no two identical firms. Companies have different structures, targets, constituencies, leadership styles, tasks, and surrounding environments. So the differences in all these characteristics can affect the type of information systems used by

the firm as there is different social and physical environment, information systems help companies in respond to their environments, from which they take resources and to which they supply goods and services. Information systems represent key tools for environmental scanning, helping managers identify external changes that might require an organizational response.

[1]

In other words business processes are collections of *routines*, or standard operating procedures (SOPs) providing a firm's efficiency.

According to Mintzberg, the following classification of companies includes five basic categories:

1. ***Entrepreneurial structure:*** *Young, small firm, such as a small startup business, in a fast-changing environment. It has a simple business structure and is managed by an entrepreneur serving as its single chief executive officer.*

2. ***Machine bureaucracy:*** *Large bureaucracy, such as a midsize manufacturing firm, existing in a slowly changing environment, producing standard products. It is dominated by a centralized management team and centralized decision making.*

3. ***Divisionalized bureaucracy:*** *Combination of multiple machine bureaucracies, such as a Fortune 500 firm, each producing a different product or service, all topped by one central headquarters.*

4. ***Professional bureaucracy:*** *Knowledge-based organization (such as law firms, school systems, hospitals) where goods and services depend on the expertise and knowledge of professionals. Dominated by department heads with weak centralized authority.*

5. ***Adhocracy:*** *Task force organization (such as a consulting firm) that must respond to rapidly changing environments. Consists of large groups of specialists organized into short-lived multidisciplinary teams and has weak central management.*

[2]

Enterprise applications are in fact such systems that span functional areas. They specially, focus on the execution of business processes across the firm on all levels of its management. They also help businesses become more flexible and productive due to coordination of their business processes more closely. (See in more detail the figure no. 3.3.6 below)

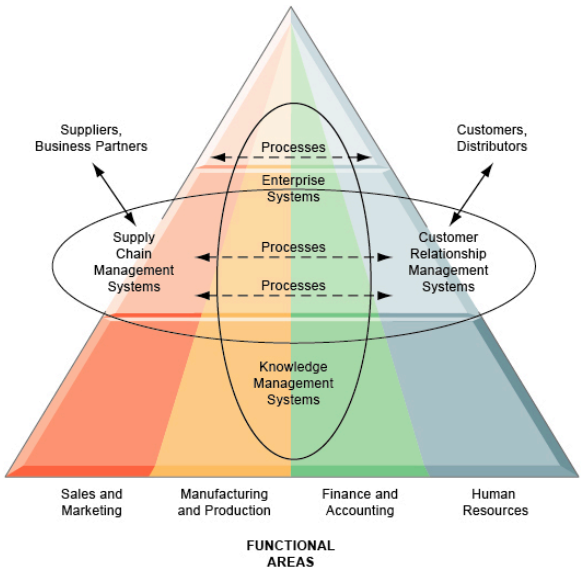
There exist four major enterprise applications:

- Enterprise systems
- Supply chain management systems
- Customer relationship management systems

- Knowledge management systems

Each of these applications integrates a related part or a set of functions and business processes in order to enhance better performance of the organization as a whole.[2]

Figure no. 3.3.6 - Generalized view of Enterprise applications



Source: ["MANAGEMENT INFORMATION SYSTEMS." *IBAT College Learning Portal.]*

Architecture of Enterprise applications

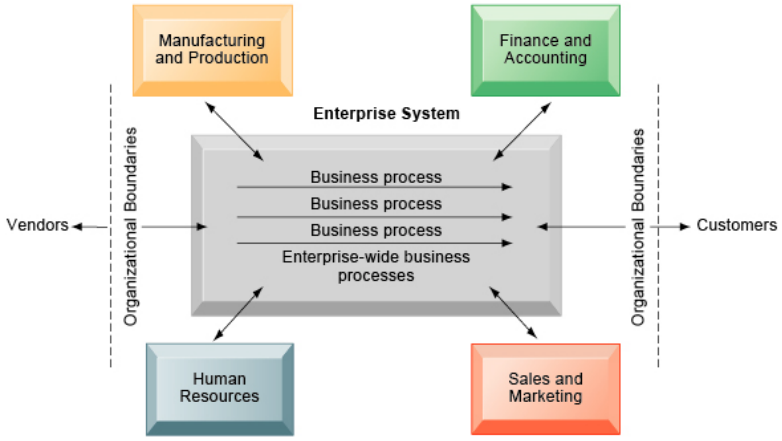
Enterprise applications automate those processes that span multiple business functions through various organizational levels and it may extend outside the organization.

Enterprise systems

These systems represent an integration of the key business processes of the enterprise into a single software system that enables information to flow seamlessly throughout the organization. They focus mainly on internal processes but it may also include transactions with customers and vendors.

Enterprise resource planning (ERP) systems model and automate many business processes with the aim of integrating information across the entire firm and trying to avoid eliminating complex, expensive links between computer systems in different areas of the business. The good thing is that previously fragmented information in different systems can seamlessly flow throughout the company in way that it can be shared by business process in manufacturing, accounting, human resources, and other areas of the firm. More discrete processes like sales, production, finance, and logistics can be integrated into company-wide business processes that flow across all organizational levels and functions.
The whole system collects data from various key business areas and stores the data in a single comprehensive data channel where they are ready to be used by other parts of the business. [2]

Figure no. 3.3.7



Source: ["MANAGEMENT INFORMATION SYSTEMS." *IBAT College Learning Portal.]*

Supply chain management (SCM) systems focus on managing relationships with the suppliers. Furthermore these systems serves as a useful tool for suppliers, purchasing firms, distributors, and logistics companies sharing information about orders, production, inventory levels, and delivery of products and services so that they are able to use sources, produce, and deliver goods and services more efficiently.

As a main advantage of SCM systems can be that they increase profitability of the company by lowering the costs of moving and making products and by enabling managers to make more easily decisions about how to organize and schedule sourcing, production, and distribution. Companies that can skillfully manage their supply chains usually get the right combination of products from their source to point of consumption with the least amount of time together with the lowest cost.

Customer relationship management (CRM) systems or online driven e-CRM systems aim at coordinating the business processes that interacts with its customers in sales, marketing, and service to optimize revenue, customer satisfaction, and customer retention. They merge customer data from multiple sources and channels so that the firm can easily identify profitable customers, acquire new customers, improve service and support, and target products and services more precisely to customer preferences.

The great value of a company's products and services cannot be seen only in its physical resources but also as intangible knowledge assets. *"Some firms perform better than others because they have better knowledge about how to create, produce, and deliver products and services. Knowledge management systems support processes for discovering and codifying, sharing, and distributing knowledge, as well as processes for creating new knowledge and integrating external sources of knowledge." [1]*

CRM systems packages range from niche tools (including limited functions, such as personalizing Web sites for specific customers, to large-scale enterprise applications). The CRM packages usually exist in these following modules for:

- ***Partner relationship management (PRM):*** *PRM software uses many of the same data, tools, and systems as customer relationship management to enhance collaboration between a company and its selling partners. It provides a company and its selling partners with the ability to trade information and distribute leads and data about customers, integrating lead generation, pricing, promotions, order configurations, and availability.*

- ***Employee relationship management (ERM).*** *ERM software deals with employee issues that are closely related to CRM, such as setting objectives, employee performance management, performance-based compensation, and employee training.* ***[2]***

Those companies not possessing enough resources to invest in enterprise applications can still achieve some serious measure of information integration by using other types, i.e. intranets and extranets.

- ***Intranets*** *typically present information to employees through a private portal providing a single point of access to information from several different systems and to documents using a Web interface. Corporate portals often feature e-mail, collaboration tools, and tools for searching for internal corporate systems and documents. Companies can connect their intranets to internal company transaction systems, enabling employees to take actions central to a company's operations, such as checking the status of an order or granting a customer credit.*

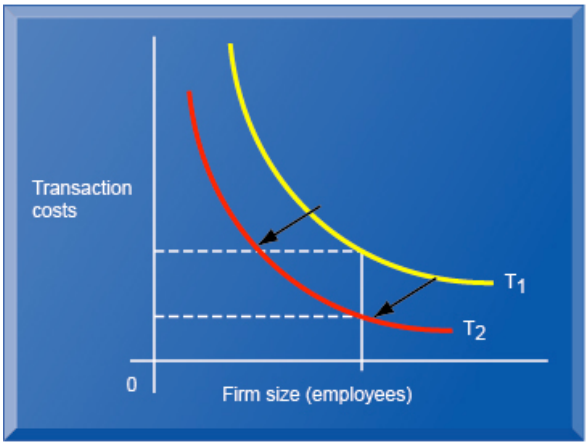
- ***Extranets*** *expedite the flow of information between the firm and its suppliers and customers. They can allow different firms to work collaboratively on product design, marketing, and production. [**2**]*

3.3.3 Influence of Information Systems on Business Firms

Taking to account an economic point of view, information systems technology can be used as a factor of production that can be freely substituted for capital and labor. As information systems technology mechanizes the production process, less capital and labor should be required to produce a specified output. To be able to better understand this concept the short-listing of available theories should not be omitted. It includes:

Transaction cost theory, for which holds that companies can grow in size because they can obtain certain products or services internally at lower costs instead of by using external firms in the marketplace. Declining cost of market participation (i.e. transaction costs) information technology allows firms to obtain goods and services more cheaply from outside sources than through internal means. Therefore Information systems can serve firms in increasing revenue while shrinking in size. [2]

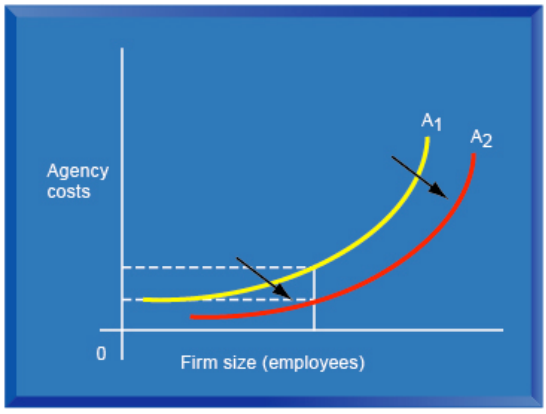
Figure no. 3.3.7 - Transaction cost as a dependant variable upon the firm size



Source:["MANAGEMENT INFORMATION SYSTEMS." *IBAT College Learning Portal.*]

Agency theory states that the firm in connection of contracts among self- interested individuals, who has to be carefully supervised to ensure they can pursue the interests of the firm. Advantage is that it helps in reducing agency costs, the costs of coordinating many different people and activities, so that each manager can oversee a huge number of employees.

Figure no. 3.3.8 – Agency cost as a dependant variable upon the firm size



Source: *[*"MANAGEMENT INFORMATION SYSTEMS." *IBAT College Learning Portal.]*

E-PAYMENT

E-payment or an electronic payment system (EPS) is a set of financial exchange between buyers and sellers in the online environment that certainly facilitates digital financial instruments (e.g. encrypted credit card numbers, electronic checks, or digital cash) backed by a bank, an intermediary, or by any other legal tender.

EPS have an important role in e-commerce due to fact that it closes the final e-commerce loop. In this sense especially developing countries represent threat as the underdeveloped electronic payments system can be a serious barrier to the growth of e-commerce. In these countries, entrepreneurs are not able to accept credit card payments over the Internet due to legal and business issues. The main issue is transaction security.

Another problematic affair can be seen in the relatively undeveloped credit card industry, because only a small part of the population is able to buy goods and services over the Internet due to the small credit card market base. Other connected problem is the requirement of signature by a card owner before a transaction is considered as valid (a requirement not existing in the U.S. and in other developed countries).

Many developing countries are still considered as cash-based economies that means that cash is the preferred mode of payment because of anonymity, which is useful for tax evasion purposes or keeping secret how the amount has been spent and for what. Security concerns have a lot to do with a lack of a legal framework for rating fraud and also the uncertainty of the legal limit on the liability associated with a lost or stolen credit card.

As result the things that have to be done according to the EPS are*: " consumer protection from fraud through efficiency in record-keeping; transaction privacy and safety, competitive payment services to ensure equal access to all consumers, and the right to choice of institutions and payment methods. Legal frameworks in developing countries should also begin to recognize electronic trans- actions and payment schemes." [2]*

3.3.4 E-Business and Security

Business value of Security and Control has become a crucial area of information systems investment. The increasing reliance on the Internet and networked systems caused the firms to be more vulnerable than ever to disruption and harm.

Enterprises' systems often accord confidential information about individuals, taxes, financial assets, job performance reviews, etc. They may also contain information on corporate operations, trade secrets, new product development plans, marketing strategies, etc. Inadequate security and control may result in serious consequences - legal liability. For this reason the systems must protect not only company's own information assets but also those of customers, employees, and business partners.

In order to deal with the above of mentioned issues many firms use encryption to protect sensitive information transmitted over networks. Encryption is the coding and scrambling of messages to prevent or avoid the access by unauthorized individuals.

Two basic methods for encrypting network traffic on the Web are:

- *Secure Sockets Layer (SSL)*: SSL and its successor Transport Layer Security (TLS) enable client and server computers to establish a secure connection session and manage encryption and decryption activities.

- *Secure Hypertext Transfer Protocol (S-HTTP)* is another protocol used for encrypting data flowing over the Internet, but it is limited to individual messages. [2]

4. Involving analysis as a crucial part in final decision making

4.1 FINANCIAL ANALYSIS

In order to create valuable and as much possible realistic view of the wealth of the company, financial analysis is a crucial element of the evaluation process. Not just for the purpose of the owner's control but also in case of a new investment consideration, there is a need of comprehensive detailed view of company's internal environment. [12]

4.1.1 RESOURCES OF THE FINANCIAL INFORMATION

Income Statement reflects the operating performance of a company within a specified time period. The most frequently used are income statements covering the period of 1 year, usually starting 1st of January and ending on 31st of December the same calendar year. According to the need of more frequent operating results analysis, some companies use the period of 1 month, especially for the management needs and in case of publicly owned organizations, the period of 3months (1 quarter) for the stockholders needs.

Balance Sheet provides a close-up statement of the company's financial position at a given point in time. Report balances assets (what the firm owns) with debt (what company owes) and equity (what was provided by the owners of the company).

Cash flow Statement summarizes cash flows of the company over defined period of time. Cash flow statement is an insight into the company's investment, financing and operating cash flow. It compares them with changes in the cash during the given period of time.

[12]

INTRODUCTION TO FINANCIAL RATIOS

Information given from the financial statements has a key importance to many interested parties who frequently need to have a relative image of company's operating efficiency. It is important to mention the word "relative" because the analysis based on the financial ratios is in the other words interpretation of relative values calculated from the information given by financial statements.

CATEGORIES OF FINANCIAL RATIOS

4.1.2 Liquidity ratios gauge the capability of the company to please unexpected short-term obligations. Liquidity is linked to the cash flow and overall financial position of the company as

it shows the level of immediate cash available for paying its invoices. Decreasing liquidity might mean initial cash flows problems and further emergence of business failure.

There are three basic ratios used consistent with liquidity of the current assets:

- **Current ratio** = Current Assets/Current Liabilities

Current ratio is used to estimate the debt occurrence on the balance sheet. The relationship between current assets and current liabilities shows the chance of ability debt payback in case of bankruptcy. Ideal value is considered to be 2 : 1, however it ranges from 2.5 : 1 to 1.5 : 1 according to business environment the company operates in.

- **Quick ratio (Acid-Test)** = (Current Assets – Inventories)/Current Liabilities

Quick ratio is parallel measurement method to current ratio with exception that it excludes the inventory from the current assets account because inventory could be sometimes illiquid and therefore hard to switched into cash. As an optimal value is considered value from 1 : 1 to 1.5 : 1. The value 1 indicates the company is able to settle all the debts without need of selling the inventory.

- **Cash ratio** = Cash + Accounts receivables + Short-term investment/current liabilities

This ratio reflects if the company has sufficient amount of money from its current operations to settle its current liabilities. Ideal value is 0.2 : 1 – 0.6 : 1.

[12]

4.1.3 Profitability ratios evaluate the company profits compared to a particular level of sales, amount of assets and owners' investment.

- **Return on Total Assets =** Earnings before interest and taxes/Total assets = (EBIT/Sales) x (Sales/Total assets)

Moreover, this ratio identifies all the activities no matter of the financing origin, the total reproduction of all assets invested in the firm. The higher this ratio is, the more is the company earning money on less proportion of investment.

"Return on total assets or Return on investment measures the overall effectiveness of management in generating profits with its available assets." [Gitman 2006, p.67]

- **Return on Equity** = Net income/Stockholders' equity = (Net income/Total assets) x (Total assets/Stockholders' equity)

This ratio is the most common in measuring the returns on the owner's investment in association with net profit to equity. ROE takes into consideration the account of retained earnings from the last years, what gives the owners ability to measure how effectively their capital is reinvested. The higher this ratio is, the higher is ability of the company to generate cash from the internal operations.

"Return on equity measures the return earned on the common stockholders' investment in the firm" [Gitman 2006, p.69]

- **Return on capital employed** = EBIT / Capital employed (Total Assets – Current Liabilities)

Return on capital employed ratio is used to demonstrate the value the business gains from its assets and how much loose from its liabilities. Basically, it is the relation of how much asset is needed to make particular amount of profit. The higher rate of ROCE is, the higher is efficiency of assets use in order to gain profit. ROCE is often used for comparison with other companies.

- **Gross profit margin** = Sales – Cost of goods sold/Sales

"Gross profit margin is a financial metric used to assess a firm's financial health by revealing the proportion of money left over from revenues after accounting for the cost of goods sold. " *[Inestopedia.com]*

This ratio also explains the ability of sales management to negotiate a deal, because higher the gross profit margin is, the higher amount of money from sales goes back into the company. Related to this ratio comes out an issue of high turnover business or high profit margin business.

- **Operating Profit Margin =** EBIT/Sales

"Operating profit margin measures the percentage of each sales amount of money remaining after all costs and expenses other than interest and taxes are deducted." [Gitman 2006, p.67]

Compared to the Gross profit margin, this ratio does not cover financial expenditures that do not belong to operating level.

- **Net Profit Margin** = EAT/Sales

"Net profit margin measures the percentage of each sales amount of money remaining after all costs and expenses including interest and taxes have been deducted." [Gitman 2006, p.67]

Earnings after taxation relationship to sales identify the level of overall performance of the management. In other words at what level of sales the company generates certain level of taxed earnings. [12]

4.1.4 Activity ratios measure speed of various accounts conversion into form of sales or cash, the inflows and outflows. According to different structure of the company's current assets, relying only on liquidity ratios in the complex measurement of liquidity is insufficient. Assets such as inventory, collection period, and payment period and asset turnover are taken in account most frequently. [Gitman, p. 59]

- **Inventory Turnover** = Cost of goods sold/Average inventory

"Inventory Turnover measures the activity, or liquidity of a firms inventory." [Gitman 2006, p.60]

By this ratio enterprise measures how many times is the inventory sold and replaced by new goods. In the other words, Inventory turnover can measure the efficiency of inventory utilization. [lux 1]

- **Total Asset Turnover** = Sales/Total assets

"Total Asset Turnover indicates the efficiency with which the firm uses its assets to generate sales" [Gitman 2006, p.62]

"This ratio is a rough measure of the productivity of a company's fixed assets with respect to generating sales. For most companies, their investment in fixed assets represents the single largest component of their total assets. This annual turnover ratio is designed to reflect a company's efficiency in managing these significant assets. Simply put, the higher the yearly turnover rate, the better."

[11]

- **Receivables Turnover** = Sales/Average Accounts Receivable

The Receivables Turnover ratio measures the efficiency of the company in the accounts receivable collection and transformation into the form of revenues.
"By maintaining accounts receivable, firms are indirectly extending interest-free loans to their clients. A high ratio implies either that a company operates on a cash basis or that its extension of credit and collection of accounts receivable is efficient. "

[11]

- **Days sales outstanding ratio** = Account Receivable/Revenues x 365 Days =
  = 365/Receivables Turnover

By the value of this ratio, a company states how many days the accounts of the company are kept in the form of accounts receivable, in other words, how long does it take to client to pay for the purchased goods.

4.1.5 Debt ratios measure the amount of external money used to generate profits. The most important is the long-term debt load, as the company is contractually obliged to regular payments over the long period of time. The grater debt a company has, the higher is the risk it will not be able to meet the contractual payments and bankrupt. Considering an investment company wants to realize, level of total debt is crucial information for lenders (banks), who are highly interested in the issue of organizational indebtedness.

- ***Debt to Total asset ratio*** = Total Debt/Total Assets

"Debt ratio measures the proportion of total assets financed by the firm's creditors." [Gitman 2006, p.64]

Deb to Total Assets ratio is an expression of proportion of external capital within the total capital of the company, in other words it express if the company is self sufficient in self-financing or the dependency on external financial sources.

- **Interest coverage ratio** = Earnings before Interest and Taxes/Interest expense paid

"Times interest earned ratio or Interest coverage ratio measures the firms ability to make contractual interest payments" [Gitman 2006, p.64]

This ratio measures the capability of the company to pay the interest expenses from debt by the resources generated by the company, by the EBIT.

- **Index IN01** = 0.13 * Total assets/Total Liabilities + 0.04 * EBIT/Interest expense + 3.92 * EBIT/Total assets + 0.21 * Net income/Total assets + 0.09 * Current assets/ (Current liabilities + Current bank credit)

The very popular index from the 60s of the 20th century, Mr. Altman's Z-score index is considered to be a universal index measuring the performance of the enterprise, based on the mix of ratio analysis. However it has been frequently used for the purpose of corporate evaluation, certain unreliability considering the Czech Republic conditions was discovered and gave birth to a newer index IN95, developed by Mr. and Mrs. Neumaier in the year 1995. After further financial research index IN95 was enhanced to more accurate IN99 and finally into index IN01. Formulas of these indexes reflect factors of the business environment in the Czech Republic.

[12]

4.1.6 PERFORMANCE OVER THE TIME PERIOD

Time series analysis is the basic analytical method for company evaluation over given period of time or through numerous points at the time. Any abnormalities compared to previous, next time period or to the main trend of the given time periods might be a symptom of the arising problem. Multiyear comparisons could be also used as a prediction based on the computed trend.

"Time series analysis is an evaluation of the firm's financial performance over time using financial ratio analysis." [Gitman 2006, p.55]

[12]

4.2 COST-BENEFIT ANALYSIS

Someone might think that cost-benefit analysis (CBA) is only a narrow financial tool. The great advantage of CBA is that it addresses even the intangible values. The probable results of alternative courses of action can determine the uncertainty and can help to improve the decision-making process. In other words it is "*technique for assessing the monetary social costs and benefits of a capital investment project over a given time period*" [Microeconomics - Cost Benefit Analysis." Tutor2u]

The easiest way to describe the whole process lies in taking the benefits of a given situation or business-related action and the costs associated with taking that action are subtracted. Sometimes the factor of opportunity cost is included into such equations.

According to desired needs of either erecting a new plant or taking on a new project, managers will conduct a CBA as a means of evaluating all of the potential costs and revenues that may be generated in case the project is completed. The results of the analysis will determine whether the project is financially feasible, or whether another project should be designed.

The fundamental key elements are benefits, costs and choices. The goal of CBA is to ensure that the resources, which cannot be committed to different ends, are chosen in the right combination that has the largest possible value per dollar expended.

CBA doesn't have to be complicated. One can simply draw a line down the middle of a piece of paper to make two columns. On the one site there appear the list of benefits of achieving a given goal and on the other there should be the listed all items and plans required for the first column. After that addition of the benefits and costs columns should be done and then one can see which has more, or assign weighted scores to each item and sum them at the bottom.

The principles of CBA include namely:

- **Appraisal of a project -** widely used in business as well as government spending projects (e.g. deciding whether a business should invest in a new information system)
- **Incorporating externalities –** if it is needed other impacts like social and environmental influences can be taken to account while making CBA, in this sense social welfare effects of an investment can be estimated

- **Time consideration** – or also known as *discounting*. This might be important when looking at environmental impacts of a project in the years ahead

The Main Stages in CBA

In order to determine whether the planned project lead to increase in the stakeholders' wealth the following stages usually occur:

1st Stage: **Identifying costs & benefits, this might cover** both

- **Tangible Benefits and Costs** (i.e. direct costs and benefits)
- **Intangible Benefits and Costs** (i.e. indirect costs and benefits – externalities)

2nd Stage: - **Discounting the future value of benefits** - costs and benefits accrue over time. Individuals normally prefer to enjoy the benefits now rather than later – so the value of future benefits has to be discounted. It reflects reducing all future costs and benefits to derive them as today's values. Finding the right scope of an optimal 'interest rate' for reducing future costs to give them a present value today is an elemental issue in this step. Setting a general discount rate for new projects has important implications as" *A low discount rate is often favored by economists since they argue that investing a high proportion of current income is a good way of providing for the future and at the same time high discount rate may also be favored since it discourages investment in the present*"[9]

3rd Stage: - **Comparing the costs and benefits** to determine the net rate of return

4th Stage: - **Comparing net rate of return** from different projects – the enterprise may have to face situation when there are limited funds at its disposal and therefore the firm has to make a choice about which projects should be given the go-ahead

One of the aspects should not be omitted especially in the first two stages and that is the level of uncertainty about the actual values and reasonable doubting about the possible outcomes. These have to be included in CBA.

Besides that the nature of the consequences possibly coming out of the results should be taken to account as well.

4.3 SWOT Analysis

SWOT analysis is generally an easy way to identify the basic elements in the both inter and outer surroundings of an individual. In the way of referring this to the means of business, it can be stated that it is a very effective manner to find and to evaluate the strong and weak characteristics of the enterprise. The things that also need the evaluation and identification are those things that might happen due to any other decision not taken from the site of the business owners. So these represent opportunities in positive perspective and threats focused on any negative outer act negatively affecting the firms' base.

In the pure managerial theory the term has become explaining it as a "*systematic framework that should facilitate managers to develop their business strategies by*

appraising their internal and external determinants of their performance. Internal environmental factors include leadership talent, human resource capabilities, the company's culture as well as the effectiveness of its policies and procedures. External factors include competition, government legislation, changing trends and social expectations".[13]

Today it is widely used by managers due its simple approach in planning the firms' future events as well as being adaptable to any situation or any project. The basis for a SWOT is usually derived from the audit review or even out of independently collected interviews with the clients and its staff. Data are often analyzed in order to point out whether any of the characteristics should be modified and how. After the SWOT results are obtained the key issues and company activities are redesigned through discussions between managers and reduced further to find the most important issues and the potential consequences they could have on the organization. When there is too much to show in the analysis, there won't be a much of focus in the progress of a new strategy. In addition, the customers' point of view should be taken to the opinions and perceptions in order to be more objective. Ideally, a company should carry out a SWOT analysis more often in order to assess its situation against its competitors in a constantly changing market environment. According to Stalk et al. *"the essence of strategy is not the structure of a company's products and markets but the dynamics of its behavior"[13]*

5. Description of the company Alpha

Company Alpha l.c. (Alpha) is a subsidiary of Alpha International, traditional manufacturer of fibre-bituminous slabs for coverings, plastic membranes for floorings, walls, and foundations, founded in 1960 and is based in Germany. Company is a supplier of a wide range of products for construction, home and garden.

According to Czech Statistical Office, the Alpha enterprise is according to legal form definition in the group 112 - limited liability companies and in the group 11003 – foreign controlled non-financial corporations, according to institutional sector definition. Number of employee category is 230 – 25 – 49 employees.

The Alpha enterprise was founded in the summer of the year 1999. After 6-month trial, at the beginning of the year 2000, the initial investment of 25 million CZK from the Alpha International took place and the status of the official distributor in the Czech Republic was acquired. The debt was paid back to Alpha International within three years, from the internally created resources.

According to the company performance a bank loan of 10 million CZK for further expansion was taken out and purchase of the complex of management and storehouse building was realized. Within one year was the complex fully reconstructed and in the year 2005 the whole company moved to the new address. This debt was paid off within three years again.

In the year 2009 was company Alpha pushed into huge money forward according to big currency fluctuations at that time and expectancy of further CZK depreciation. This hedging strategy was considered as extremely unsuccessful, since the company reported loss of 8,974 million CZK as it could be seen from the calculation in the figure no. 5.1.

Company conduct its commerce at the level of business-to-business so far it is in the unique position of the only distributor of the products of the Alpha International in the Czech Republic. Therefor, enterprise managed the sales only through wholesale channel until the year 2011. Characteristics of the B2B wholesale environment are low gross profit margin, but high volume of sales. Orders are delivered via contracted services, from the main storehouse to client. Some of them, if considered extra high volume, are sent directly from the producer to client. Company empowered the strategy of expansion into as many possible commission storehouses as possible, what significantly increase the total amount of inventory in stock and added value of service provided to current clients.

Commission warehouse is a storehouse of the client filled with Alpha company’s products, the client did not pay for, but has them opted instead to sale.

Alpha company has reached the end-customer segment of market very slightly via outsourced electronic retail, through the Beta enterprise.

The Beta enterprise is a company based on the product portfolio of the Alpha International and few other brands, but with the general amount of revenues from the sales of Alpha International products. It realizes online retail as the only one company on the Czech market, to what is contractually bounded. 39% of the sales are through wholesale channel and 61% is through the e-B2C channel. The guarantee of exclusivity for Beta enterprise on the online end-customer market is contractually due. With the year-to-year increasing amount of Internet end-customer sales, the company is becoming unable to handle the e-commerce sales channel any more from the capacity of storehouse and management level point of view.

Companies tend to lead customers to their online solutions and online support, in order to low costs representing by salesmen and support department employees.

Therefore, with the decreasing tendency of the gross profit margin in the B2B globally, as a result of increasing competition, company is deciding to enter the B2C market via own e-e-commerce model as the B2C market is lucrative by twice higher gross profit margin than wholesale B2B.

Figure no. 5.1 Unsuccessful currency forward from the year 2009

Date	CZK	exchange rate	EUR	actual rate	EUR	difference EUR	difference CZK
2/26/09	1,000,000	**28.85**	34,662	**28.290**	35,348	**-686**	-19,411
3/3/09	1,500,000	**28.85**	51,993	**27.955**	53,658	**-1,665**	-46,534
3/12/09	2,000,000	**28.85**	69,324	**27.020**	74,019	**-4,695**	-126,863
3/25/09	2,000,000	**28.85**	69,324	**27.295**	73,273	**-3,949**	-107,799
4/7/09	2,000,000	**28.85**	69,324	**26.575**	75,259	**-5,935**	-157,712
4/16/09	2,000,000	**28.85**	69,324	**26.920**	74,294	**-4,970**	-133,795
4/28/09	2,500,000	**28.85**	86,655	**26.730**	93,528	**-6,873**	-183,703
5/6/09	2,000,000	**28.85**	69,324	**26.800**	74,627	**-5,303**	-142,114
5/18/09	2,500,000	**28.85**	86,655	**26.900**	92,937	**-6,282**	-168,977
5/28/09	3,000,000	**28.85**	103,986	**26.760**	112,108	**-8,121**	-217,331

6/9/09	3,500,000	**28.85**	121,317	**26.780**	130,695	**-9,377**	-251,127
6/19/09	3,000,000	**28.85**	103,986	**26.365**	113,787	**-9,801**	-258,406
6/30/09	3,500,000	**28.85**	121,317	**25.890**	135,187	**-13,870**	-359,099
7/9/09	3,500,000	**28.85**	121,317	**25.935**	134,953	**-13,636**	-353,640
7/21/09	3,500,000	**28.85**	121,317	**25.815**	135,580	**-14,263**	-368,198
7/31/09	5,000,000	**28.85**	173,310	**25.575**	195,503	**-22,193**	-567,591
8/11/09	3,500,000	**28.85**	121,317	**25.780**	135,764	**-14,447**	-372,444
8/20/09	4,000,000	**28.85**	138,648	**25.585**	156,342	**-17,693**	-452,686
8/31/09	4,000,000	**28.85**	138,648	**25.380**	157,604	**-18,956**	-481,109
9/9/09	4,000,000	**28.85**	138,648	**25.525**	156,709	**-18,061**	-461,005
9/17/09	4,000,000	**28.85**	138,648	**25.095**	159,394	**-20,746**	-520,624
9/29/09	3,500,000	**28.85**	121,317	**25.180**	138,999	**-17,682**	-445,234
10/8/09	4,000,000	**28.85**	138,648	**25.765**	155,249	**-16,601**	-427,730
10/19/09	3,500,000	**28.85**	121,317	**25.785**	135,738	**-14,421**	-371,837
10/29/09	3,500,000	**28.85**	121,317	**26.480**	132,175	**-10,858**	-287,522
11/9/09	3,500,000	**28.85**	121,317	**25.580**	136,826	**-15,508**	-396,707
11/19/09	3,500,000	**28.85**	121,317	**25.600**	136,719	**-15,402**	-394,281
11/30/09	3,000,000	**28.85**	103,986	**25.600**	117,188	**-13,201**	-337,955
12/10/09	2,500,000	**28.85**	86,655	**25.600**	97,656	**-11,001**	-281,629
12/22/09	2,500,000	**28.85**	86,655	**25.600**	97,656	**-11,001**	-281,629
Total							**-8,974,690**

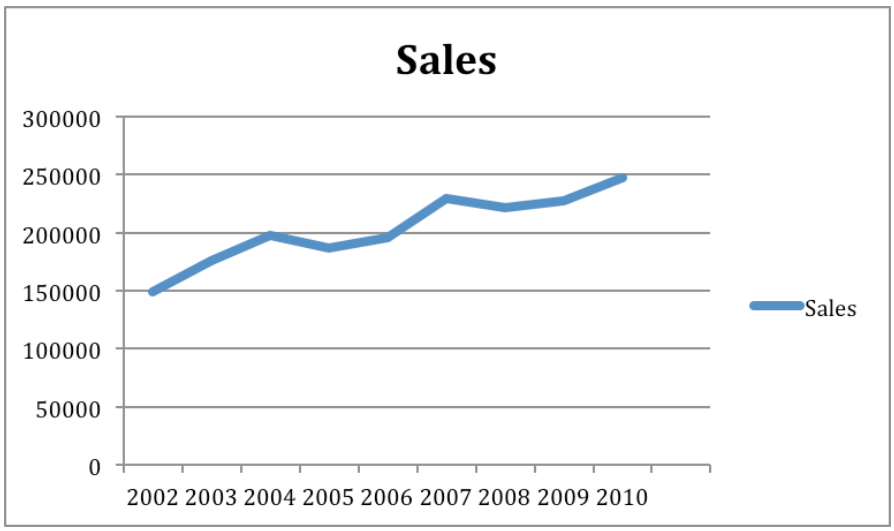
Source: own calculation

6. Outcomes of the analysis

6.1 Financial Analysis

For the beginning of the financial analysis of the company Alpha, basic data were acquired from the two most important financial statements, Balance Sheet and Income Statement in order to describe the evolution of the two basic development indicators, the Sales account and the EBIT.

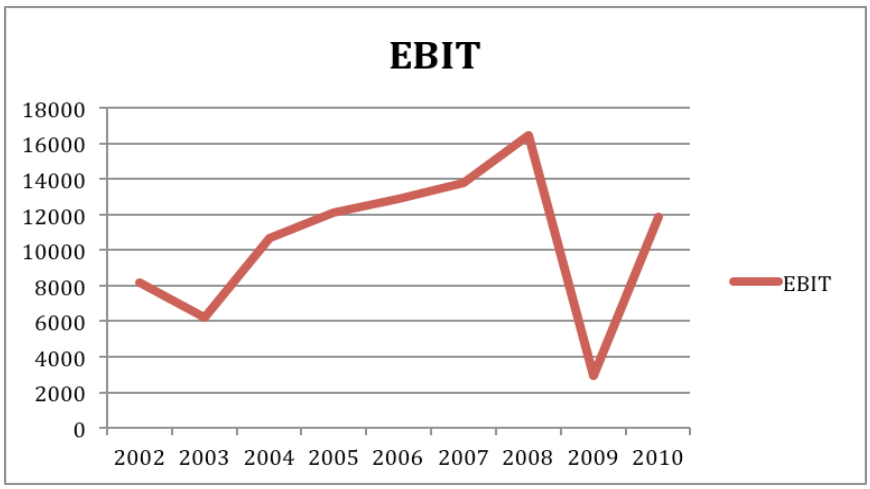
Figure no. 6.1 - Progress in sales (in th.CZK)



Source : Own calculations

The long term trend of the Sales account has the growing tendency, since the company began on the value of total revenues from goods sold of 148,838 ths CZK in the year 2002 and build up this value up to 247,663 ths CZK in the year 2010. The average annual growth of the volume of sales has been 7% for the 8 years decade and if the initial year 2002 is compared to the final year 2010, it represents 60% gain in total sales. From the point of view of financial analysis, this is a positive information in terms of the development of the company, especially it demonstrates the position of the enterprise on the market with construction materials.

Figure no. 6.2 - EBIT in years 2002 - 2010 (in th.CZK)



Source : Own calculations

The EBIT value is considered to be the main indicator of company's ability to profit, since it excludes expenses on interest payments and taxes that differ from company to company and from country to country.

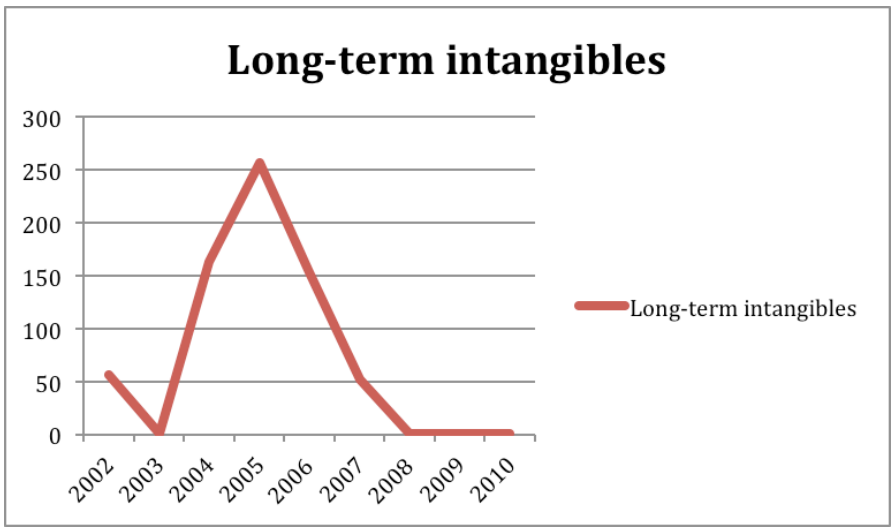
After the initial decreasing trend in the year 2002, the ability of the company to create operational profit grown since the year 2003 until the year 2008 to the highest level of 16,465 thousands CZK in the year 2008, from where dramatically fell down to the value of 2,913 in the year 2009.

This abnormality is caused by several factors. The most important one is the unexpected year-to-year decrease in gross profit margin due to increased competition on the construction material market. Company took appropriate actions to respond the competition that caused temporal decrease in the value of EBIT. Increased investment in marketing, services and expenses of linked recruitment of new staff throw the company in red numbers for the year 2009.

Despite of the problem with increased competition, company proved its ability to self-revitalize from the profit point of view by reaching the value of 11,854 thousands CZK in the next year 2010. In the other words, company regenerated from the loss in terms of EBIT value within 2.5 years.

Considering the investment into a digitalization of the business, the fact of a new software acquisition arises. The development of long-term intangible assets is described in the chart below

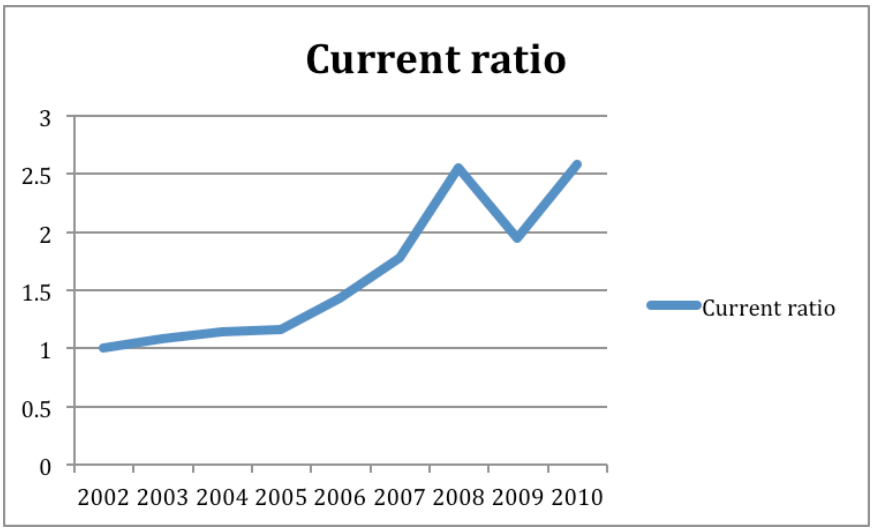
Figure no. 6.3 - Value of Long term int. assets (in th.of CZK)



Source : Own calculations

Considering the plan of investment in digitalization of the company, account of long-term intangibles describes the evolution of payback period of purchased software in the past and the company capability to deal with. Company decision to purchase a complex accounting system at the end of the year 2003 directly linked to storehouse for the immediate information about the actual level of stock and for increased effectiveness of internal accounting processes. As labelled in the diagram, company had to write off this expense for 4 years, but realized it without creating any thread to internal wealth or limit in current operations.

Figure no. 6.4 - Current ratio development in period 2002-2010

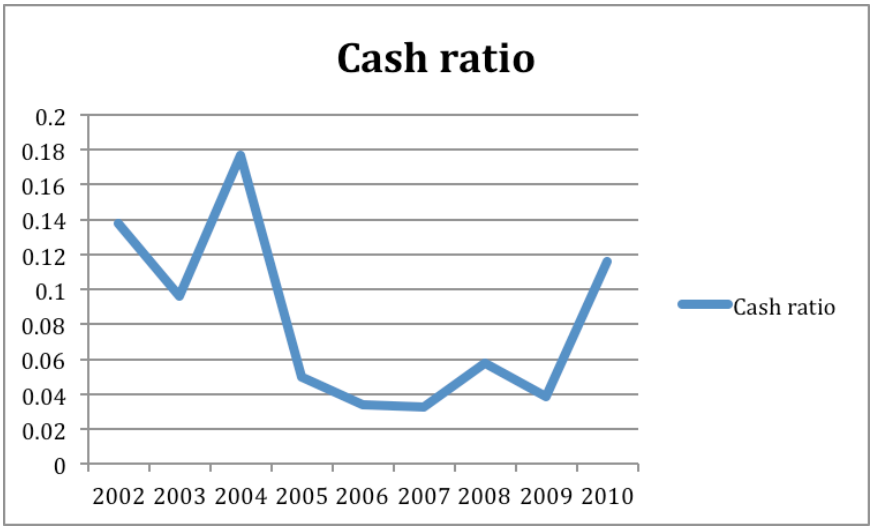


Source : Own calculations

As it is generally considered, the larger the current ratio is, the more secure position are the debt holders in, the growing trend of the current ratio in the company Alpha reflects the increasing level of debt safety in case of immediate need of debt payback, all from the debt holders point of view. It means that company is likely to be offered a lot of external financing opportunities, generally from banks.

The ratio is constantly growing except of the year 2009. According to the year 2008 when the company Alpha was pushed into a huge and highly inefficient currency forward by its owners according to currency fluctuations and expect of CZK depreciation, that was retrospectively considered only speculative error.

Figure no. 6.5 - Development of the Cash ratio in period 2002 - 2010



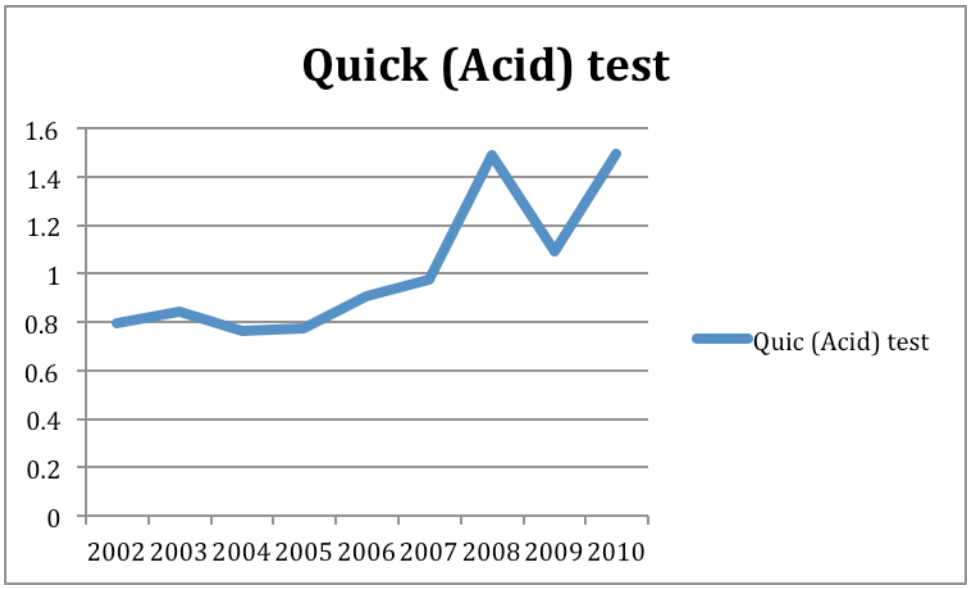
Source : Own calculations

The cash ratio describes the company ability to cover current liabilities by its own financial assets created through its own operations.

As it is seen from the diagram, company empowered by external financing according to enter on the Czech market in the year 2000, started to be self-sufficient during the year 2004. As soon as the company recovered from the primary investment and settled its position on the market, there was recognized a limit of future dynamic development in the form of small storehouse and management building. Decision of necessity of another expansion in terms of number of employees and operating spaces took place and another investment was realized. Three years were needed to manage the cash ratio to have the increasing trend again. Finally, last investment made after the company settled down was

in the year 2008, according to greater position on the market, higher sales number and linked need of additional manpower.

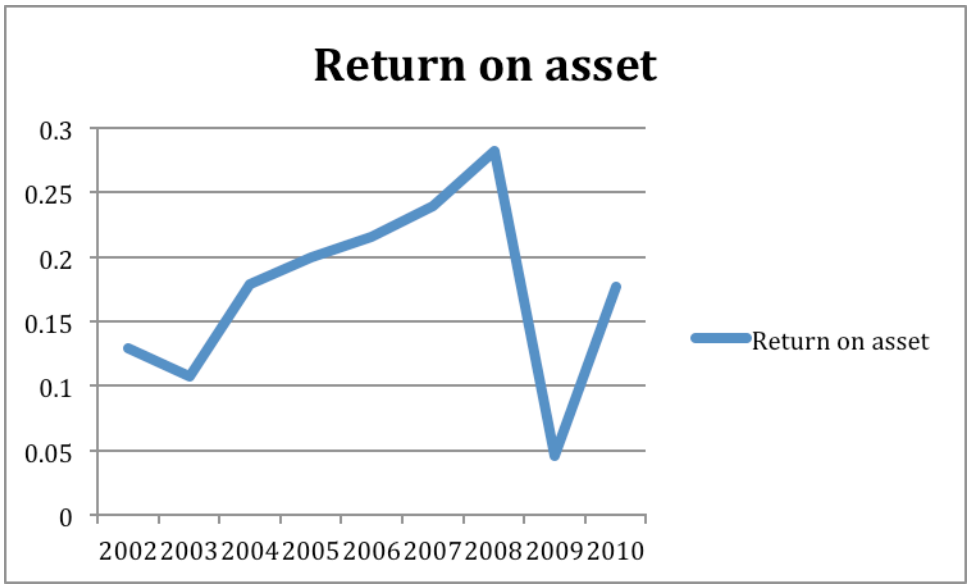
Figure no. 6.6 - Quick test in period 2002 - 2010



Source : Own calculations

Yearly values of the acid test give us the information that until the year 2008 company Alpha would have to sell its inventory in order to pay off all its debts immediately, what fits to the description of characteristics of the expanding company. As the value of this ratio is increasing from the year 2004 and overcomes the value 1 in the year 2008, from this point of time firm Alpha is able to manage all of its debts without possible lost of inventory. Moreover, the diagram describes very clearly the shock caused by unsuccessful currency forward, its affect on the company in the year 2009 and what is the most important, the financial strength of the company demonstrated by the ability to recover in 2 years back to even higher value of acid test than before the financial damage.

Figure no. 6.7 - Return on asset in years 2002 - 2010

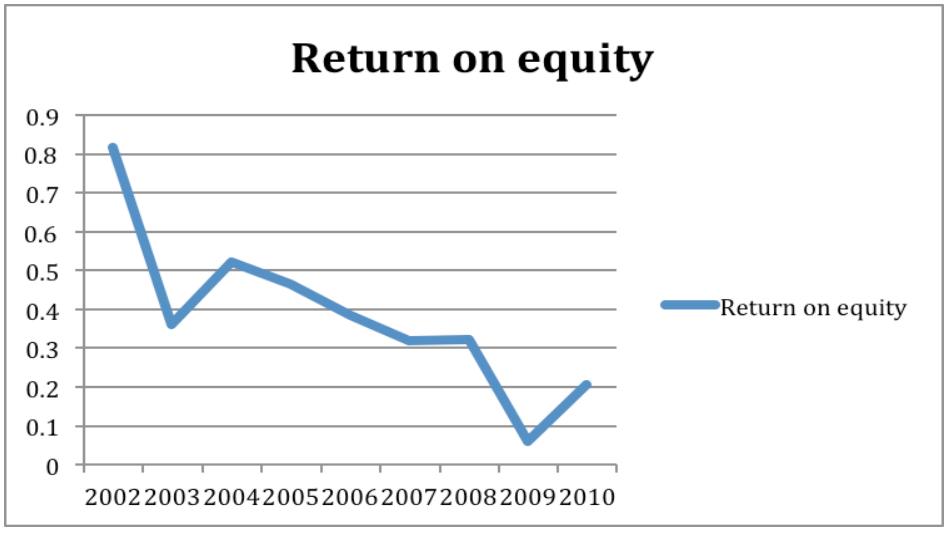


Source : Own calculations

Firs of the profitability ratios gives us an overview of how efficiently the company use investments. The higher the value of ROA is, the more efficient is the company in use of the investment. Even if the external financing and connected interests are taken into calculation, still there is a very significant growing trend considering the company Alpha.

The year 2009 is the only one with decreasing value because of the huge decrease in assets, due to a wrong hedging strategy.

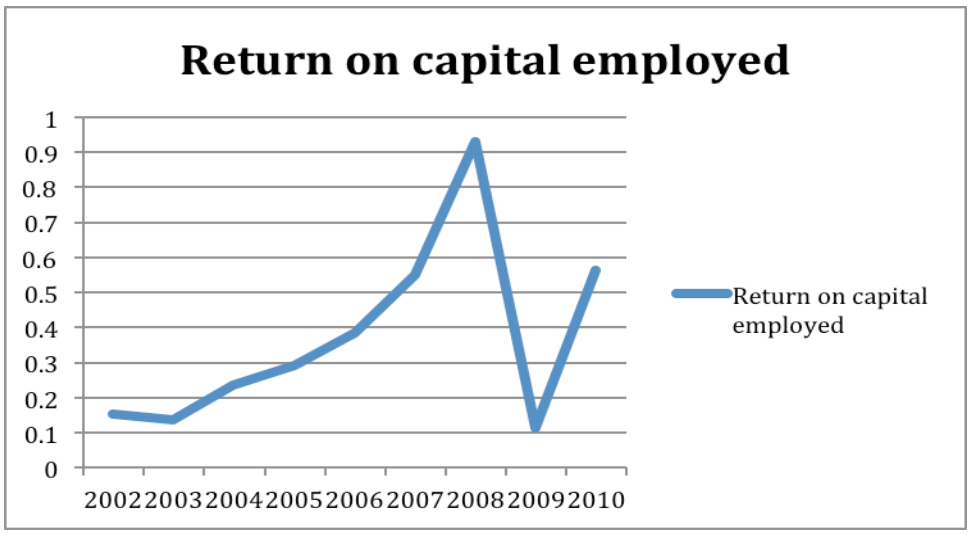
Figure no. 6.8 - Return on equity in period 2002 - 2010



Source : Own calculations

Since the return of equity ratio evaluates the efficiency of the investment return in the case of Alpha company it states out how difficult has been to deal with primary external financing in the year 2001, bank loan for the company expansion in the year 2004 and finally the unexpected problem with profit loss in the year 2009. However there were three negative financial situations that could possibly lower the evaluation of the company, the curve of the ROE diagram clearly identify the company's very good ability of financial regeneration based on the years 2003, 2007 and 2010 with increasing values of ROE ratio.

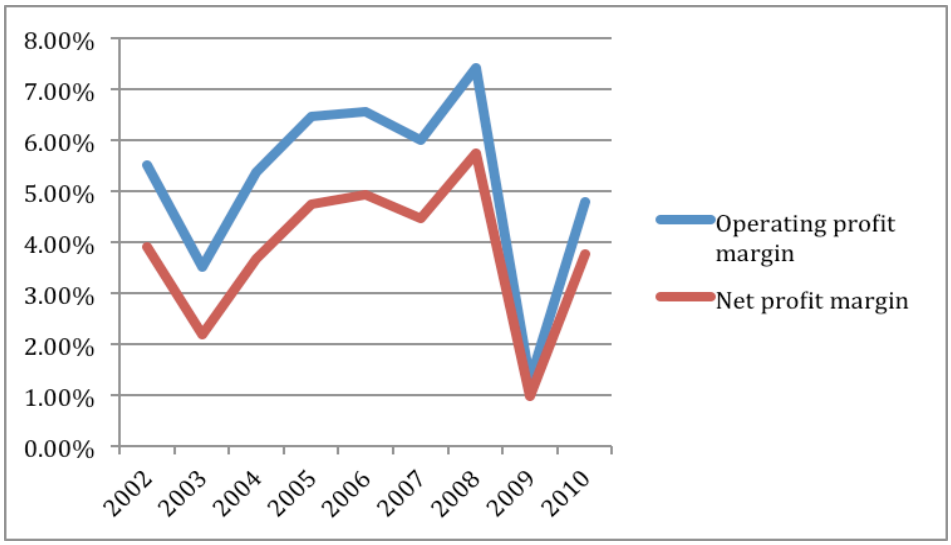
Figure no. 6.9 - Return on capital empoyed in period



Source : Own calculations

Since the ROCE is stadily growing in the Alpha company, except of the year 2009 caused by the hedging failure, it shows increasing level of efficiency in capital operational consumption in terms of profit gain. The ROCE values manifest the internal strenght of the Alpha company in the regeneration process, when the company made the progress that took 5 years before in 2 years and most probably will reach the level of the year 2008 at the end of the year 2011 that means it fully recovered its capital consumption efficiency by less than 3 years.

Figure no. 6.10 - Operating profit margin vs. Net profit margin

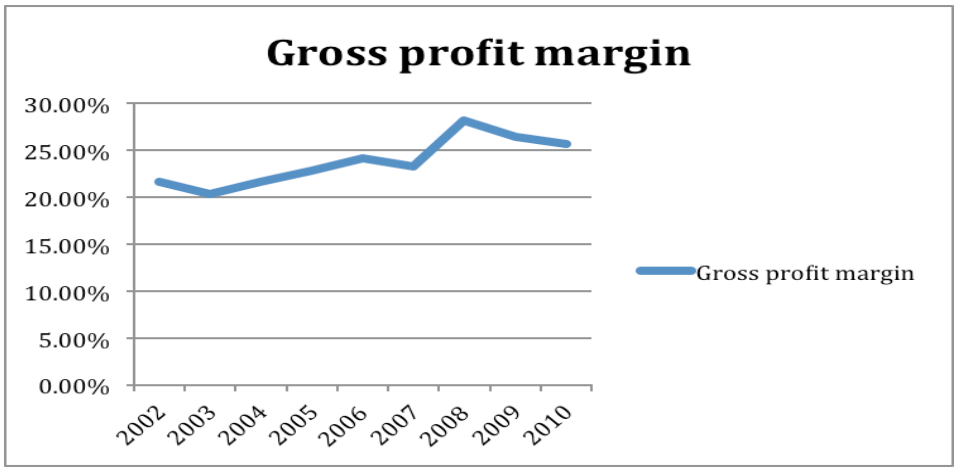


Source : Own calculations

Operating profit margin identify the amount of EBIT in total amount of sales what is considered to be very important information, as it determines whether the fixed costs are too high for the production volume.

The development of both Operating profit and Net profit margin ratios values are very simillar, almost copying the trend from each other with difference of 1.5 percent until the end of the year 2009, when the values decreased to 1.9% and 0.9% in the case of net profit margin. This decrease was caused by unexpected missing amount of net profit as a result of loss due to hedging failure. After this milestone in the history of the company Alpha the value of both profit margins almost met during the year 2009 and has started to grow constatnly.

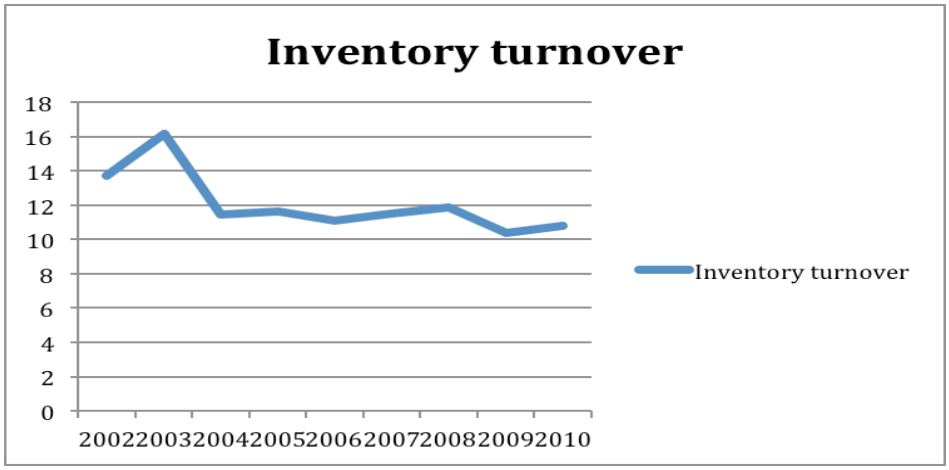
Figure no. 6.11 - Gross profit margin (%)



Source : Own calculations

As mentioned by the definition, this ratio shows the skills of sales managers to arrange the business. Generally the higher the profit margin is, the more easily gained net profit. There are two types of businessess concerning this ratio. Large scale businesses, that operate generaly on lower gross profit margin and low scale businesses, operating on higher profit margin. From the profitability and operational point of view, higher the margin is, lower turnover is needed to gain certain amount of net profit. On the other hand, if the margin goes down, usually according the competition on the market, there is a need of increased turnover and gain the profit from the scale of the business. At the time when company Alpha entered the market, there was not so high competition in the building products market. According to the current high level of competition in this segment of market, the gross profit margin has declined from the 28% in the year 2008 to current value of 25.5%, what in total evaluation does not have any significant value according to constant increase in sales on the other hand.

Figure no. 6.12 - Inventory turnover in times per year



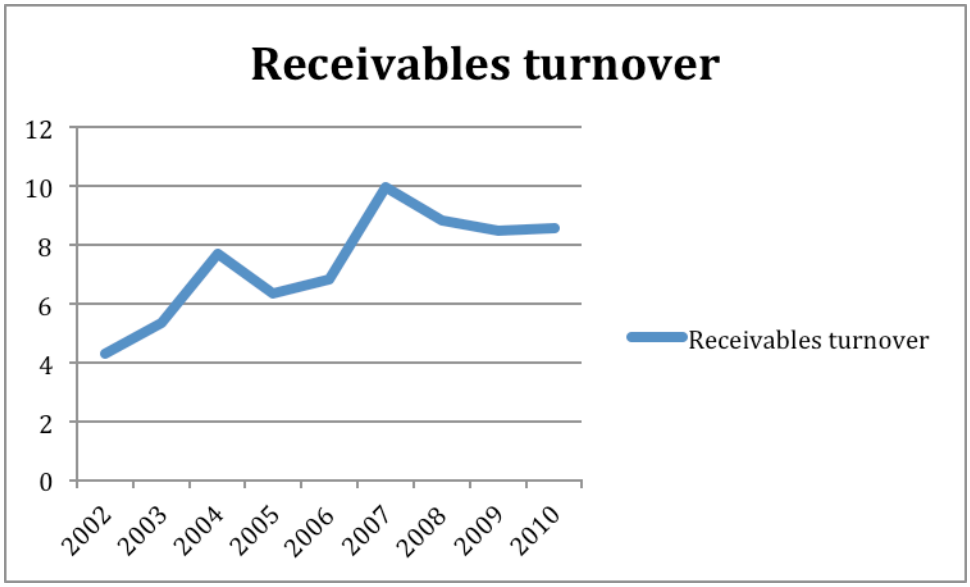
Source : Own calculations

The long-time decreasing trend in Inventory turnover ratio describes the lower number of times the enterprise replaces its inventory within a year. This fact is enhanced by increasing number of clients company supplies directly from the manufacturer and increasing nubmer of problematically sold products that stays in stock for the longer time.

Another very important factor affecting this ratio is the acquisition of the new storehouse in the different part of the Czech Republic in the year 2009. Full filling of the new storehouse by complet product portfolio, in order to decrease the delivery time of orders and to decrease the costs of transport, resulted in the lower Inventory turnover in the year

2009. The last but very important point to mention is the fact of increasing number of comission storehouses as a strategy to stand up to competition. Commision storehouses function is to expand the storing capabilties of the company. Increased number of product with high day sale turnover ratio stay in the commision storehouses and higher this ratio in total.

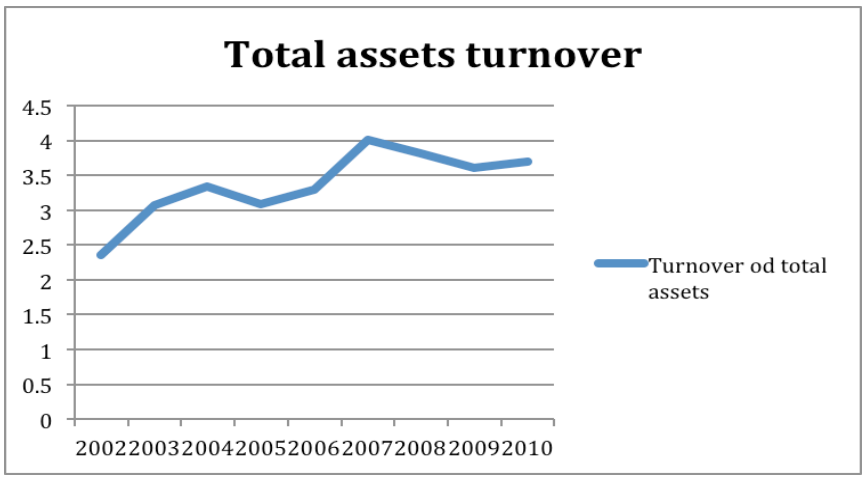
Figure no. 6.13 - Receivables turnover



Source : Own calculations

Value of this ratio describe the capability of the Alpha enterprise to collect its accounts receivable. Information from this ratio has nothing to do with company internal operations , but it clarifies the vulnerability of the company to credit its clients with interest-free loans in the form of unpaid invoices. This is actual huge problem at the czech market and especially the market of construction materials. Therefore the trend in “debt collecting” is to decrease the time of turning the recievables into own financial resources. The curve in this diagram shows us that from the beginning of the existence of the company Alpha, the vulnerability to lease was higher, linked to a customer portfolio enhancing strategy. Nowdays the decreasning trend is implied, according to a solid customer selection strategy, in other words, the less time the customer needs to pay for the invoice, the much vital and perspective is for the business. However the trend was decreasing from the year 2007 to 2009, company implied a new strategy as a reaction on increased competition, to longer the time to pay as a sevice to clients that creates added value to the products sold by company.

Figure no. 6.14 - Total Assets turnover

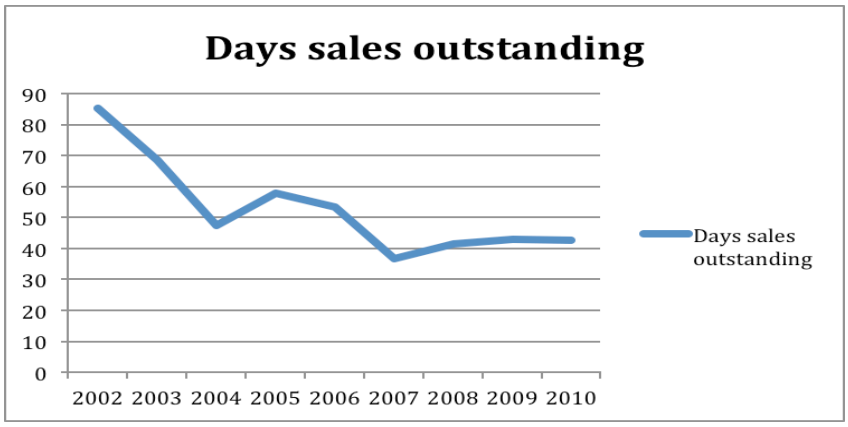


Source : Own calculations

From the values of this ratio we can see the history of fixed assets productivity use within the Alpha company, since the main function of this ratio is to indicate the efficiency of total assets management in order to generate sales. As another function of this ratio is to indicate pricing strategies, there is a link to profit margins development. As the company Alpha entered the market in the year 2000 and outsourced its storage operations, there is no point to evaluate this ratio from the effectivity in total assets management point of view until the year 2005, when a big acquisition of management and storage building took place. After the year 2005 there is an increase in total assets management effectivity according to pricing strategy and profit margin management.

Since this ratio is considered to give rough measure of the productivity, the value of the results it creates has only basic informational character.

Figure no. 6.15 - Days sales outstanding



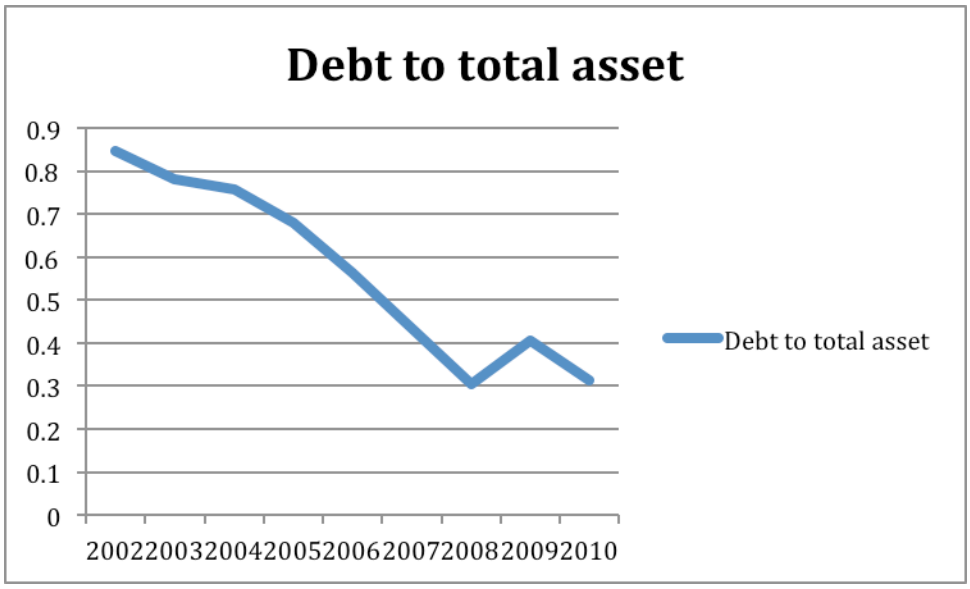
Source : Own calculations

The days sales outstanding ratio expres for how many days are the assets of the company in the form of receivables. The trend shows the strategy of the Alpha enterprise, applied according to crisis-caused general bad payment behaviour of the clients, to lower the age of recievables as much as possible. The ratio states the current average level of 42.5 days needed to transfer the receivable into form of revenue, that is unfortunatelly high according to the B2B business environment the company operates in. However by lowering this ratio enterprise increase the safety of its receivables and consequently its revenues, the another possible effect is lower amount of sales caused by uncompetency of clients to pay invoices in shorter period of time.

There are two possible soluitions that should drive the company Alpha out of this problem. To exlude those clients with long payment period, what will result in lost of sales or to enter the B2C market where the customer pays for goods immediately and therefore significantly lower this ratio in terms of whole company.

Finaly it is necessary to mention, that according to financial data, the company Alpha does not have any important need of dramatic lowering the time needed for its receivables to transfer into revenues and loosing some clients, however an old receivable is an indirect type of interest-free loan to the client.

Figure no. 6.16 - Debt to total asset ratio

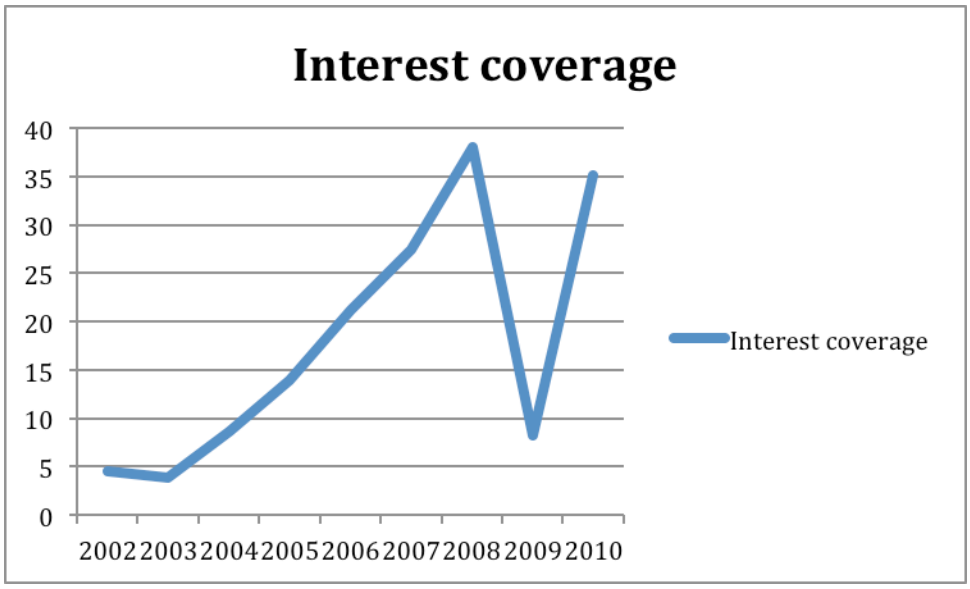


Source : Own calculations

First of the very important debt-coverage ratios states out the proportion of external capital in total assets of the company Alpha. Since at the beginning was realized a huge external financing from the side of the owner Alpha international, 85% of the company was covered by external financing. As we can see, except of the year 2009, the company has performed very well what is declared by almost linear 10% per year process of the debt repay and decrease to the value of 30% in the year 2008. If trend of this ratio remains

stable, it reaches 0% by the end of the year 2013. Throug the values of this ratio enterprise also demonstrates its solvency, moreover, it can be used as an instrument in negotiation with external financing providers, banks for example, in the case of new investment necessity.

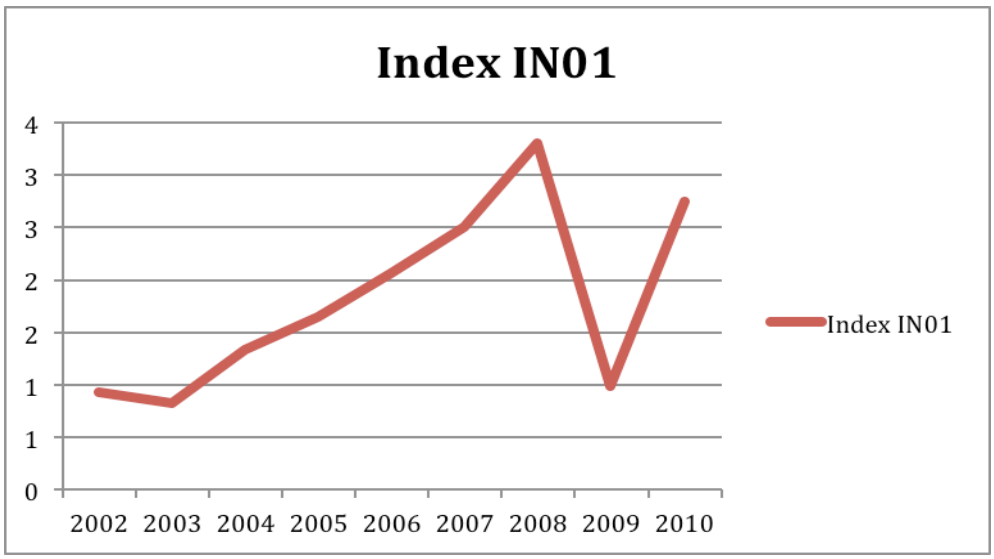
Figure no. 6.17 - Interest coverage (in %)



Source : Own calculations

Since the recommended value of the Interest ratio is above 1.5, the Alpha company clearly identify that the ability of the company to cover the interest expenses by own earnings is very high. Considering the development of this ratio, there are only two years with the decreasing trend. First of them, the year 2003, was still influenced by the initial investment in the year 2000 and the company's early-developing phase. The second one, the year 2009, was affected by the unsuccesful purchase of the money forward and according to a huge lost of profit, the ability of the company to finance interest expenses by revenues from own operations was significantly lower.

Figure no. 6.18 - Index IN01 development in 2002 - 2010



Source : Own calculations

Finally, to evaluate the company from the complex point of view and to predict a possibility of bankruptcy, Index IN01 was used. As this index contains wide range of accounts and calculated indicators, it determines the level of thread of the enterprise against the bankruptcy.

The level of this index declined in the first three years of the business existence, due to the necessary primary investments and process of penetration into the market. However the huge investment and related external financing because of long-term tangible assets acquisition in the year 2003 and 2004 does not change the value of this index significantly, since the year 2004 it increases to a very pleasant value of 3.29. The data from the diagram clearly identify the company internal strength against possible thread in the form of bankruptcy, since the value of this index cross the value of 1.77, what is considered to be value-creation area. Actually this diagram gives us a very relevant information related to a problem with currency forward managed in the year 2008, that sent the company into red numbers for one year, because of the lost of net profit of 8 million CZK. According to this situation the value of the index IN01 related to company Alpha decreased from 3.29 reached in the year 2008 to 0.98 the next year 2009, but recovered to the value of 2.74, reached in the year 2010. There is no more significant and complex verification of how successfully the company has dealt with the problem situations and how successfully managed the possibility of the bankruptcy.

6.2 Cost-benefit analysis of the planned business digitalization of the company Alpha

With regard to the corporate wealth level of the company Alpha, clarified within the financial analysis as a part of this thesis, investment into a project of digitally driven Business-to-customer and Business-to-business sales channels, is in the process of consideration. As far as the cost-benefit analysis is widely used as a tool of sustainable project planning, it has to be the part of this work as well.

To begin with this analysis, the key features had to be identified. For the project of digitalization of current wholesale channel and end-customer sales channel implementation, the costs part and the benefits part was established.

The costs part counts with five groups of costs considering different areas of the affect this investment project could have.

Figure no. 6.18 - Expected cost of the project

COSTS	
New software	
Software e-B2C, e-B2B, e-CRM	130,000
Accounting program integration module (AI module)	35,000
Installation	25,000
New equipment	
1 PC	36,000
1 printer	10,000
Installation	3,000
Operational equipment B2C associate	9,000
Cell phone B2C associate	6,000
Employees	
1 B2C associate	516,000/year
1 Warehouse man	324,000/year
Other personal expenses	20,000

Training costs	
Operational department - 7 people	28,000
B2C associate	5,000
Warehouse man	3,000
Key Account Manager	6,000
Other Costs	
Lost of sales and customers	3,478,000/year
TOTAL COSTS	**4,634,000**

Source : Own calculations

First group is consists of the amount of money needed for the initial software purchase and other services associated. The purchased software is divided into three main parts, plus the module for the integration with current accounting software the company is running at. As far as current wholesale clients will be recognized by the system as customers with different purchase price, the structure of the software will be very simple and user-friendly. Therefore the final price for the software is not as high as would it be in case of wider ERP system acquisition. Since the B2B and B2C sections will be running at the same level, it gives an opportunity to easy CRM system implementation, in the simple form of statistic and customer information based comparison engine, that would generate the charts of clients and products by given constraints.

The accounting module implementation is crucial for the possibility of online view of actual level of stock and therefore for better information distribution to the customer. Another valuable feature of this connection is availability of electronic invoicing that will be further discussed in the benefits citation.

The last cost connected to a software purchase is the installation fee that is linked to the synchronization of the accounting system and the system of online retailing.

The second group of costs reflect the planned expense on new equipment needed for a new employee who will manage the electronic retail system. There are five items considered as necessary, a personal computer, a printer, a cell-phone, office equipment and a setup of all the items together.

The third and the second highest group in term of costs is the group of planned expenses on new employees. Two new positions must be created to secure added operational processes in the company without creating any thread in term of lower effectiveness of the internal environment of the company.

Two new positions are to be considered, B2C associate, to manage the new digitally driven B2C sales channel and 1 more wholesales man to increase the performance of the warehouse and again, to drive away safely the possible thread of overloading the storehouse and decrease of company's internal environment performance.

The fourth group contains expenses on essential training of all the employees who could be affected by the new investment. In other words, to make everybody familiar with the new technologies implemented and to make particular employees capable of accepting it.

Operational department is needed to be familiar with the e-Invoicing system and the e-B2B software environment and the B2C associate has to be familiar with all new technologies implemented. The warehouse man has to be familiar with storehouse environment and company internal strategies and finally the key account manager needs to understand properly the e-CRM software in order to be capable of further customer portfolio analysis and derive further sale strategies with result of increase in sales. Since all the training procedures will be held in the normal working time and the employees are paid for the work done, not for the time spent at work, the cost of time of employees spent with the training is not counted.

In the fifth group of other costs, huge expense reflecting the lost in sales and loss due to customer database transfer from the company Beta, is identified. So far the Beta company represents 9% of total amount of sales of company Alpha, and 61% of the sales of Beta company is through e-B2C sales channel that is planned to be retransferred, the value of 5.49% loss in total sales of Alpha company is recognized with.

Second part of this class of cost represent the value of loss caused by the Beta company e-B2C customer portfolio transfer into Alpha company and its further integration and use through the new sales channel. However the enterprise Beta is contractually obliged to transmit the customer database and the database is legally a subject of property of the company Alpha, the planned loss as a result of the transfer process is planned to 30%. Therefore, the amount of 30% of e-B2C sales of company Beta is planned as a loss and the amount of the 70% as a customer gain for the company Alpha.

Figure no. 6.19 - Expected Benefits of the project

BENEFITS	
Less 1 employee from operational department	450,240/year
Improved efficiency of operating processes	250,000/year
Increase in sales in B2B	468,000/year
Lower days sales outstanding ratio	47,000/year
New sales channel	3,808,000/year
TOTAL BENEFITS	**5,023,240**

Source : Own calculations

The benefits part of the planned project contains 5 main factors to be discussed and the total value of benefits is according to sustainability obviously higher than the total value of costs.

First factor view as a benefit is the sum of yearly salary of one person employed as invoicing associate, who is no more needed according to e-invoicing feature of the new technology, fully integrated into new electronic retailing system.

Second very important point is improved efficiency of operational department. As driven by persons who work in the high season under the pressure, the department creates certain level of faults resulting in the need of credit notes. The total amount of credit notes is expressed as cost, 700,000 CZK per year. Lowering the total number of credit notes by 50% as an affect of increase efficiency due to digitalization of B2B and operations linked results in the benefit expressed financially in the table.

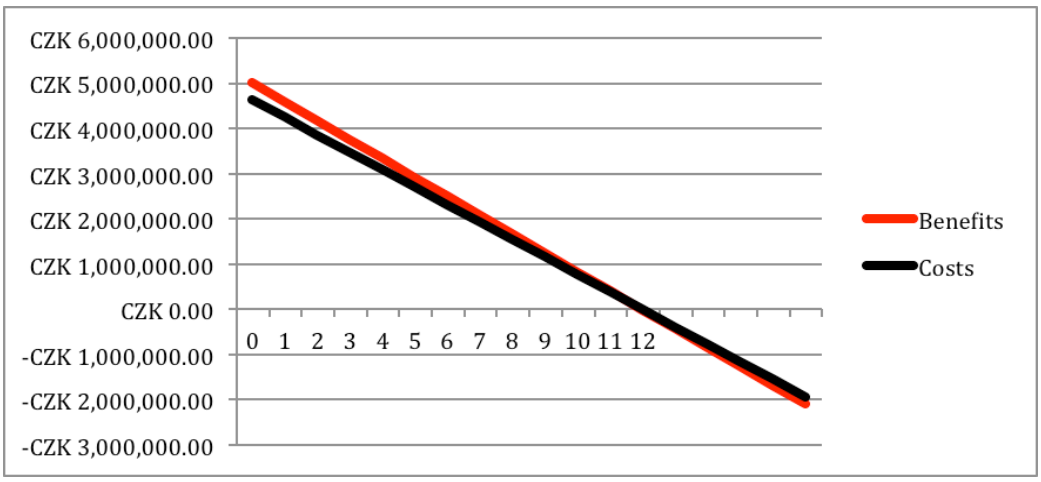
Third point to be discussed as a benefit is an e-CRM feature of the digitalization process of the company Alpha. As the CRM software used by appropriately trained person with the decision taking ability is a key element of sales-increase process, the value of increase sales as a result of better possibilities in customer portfolio analysis and strategy implementation of the key account manager is marked in the list of benefits. Planned increase is 5% in terms of total sales of company Alpha.

The fourth part of benefits and the lowest one from the value point of view is the fact of lower ratio of day sales outstanding. Proportionally computed from ratio of the planned total amount of new customers, who will pay for the goods at the moment they obtain it and the amount of current clients who pay for the goods, according to the financial analysis, approximately in 42.5 days, the total value of this benefit is expressed as less use of credit obtained by the help of the bank, with interest of 2.5% p.a.

Finally, the greatest benefit of the whole investment project and the purpose of this cost-benefit analysis is the development of a new sales channel, the business-to-customer sales channel that is characterized by a very lucrative 40-50% gross profit margin and lower operational expenses when conducted fully online, digitally. The company Beta was in charge in the position of the outsourced enterprise with the main quest, to drive the e-B2C sales channel for the company Alpha. Since the guarantee of exclusivity on the Czech market was given to the company Beta, it was the only enterprise that was contractually allowed to sell the products of the company Alpha online. The factor of being contractually exclusive and having the only official distributor in the Czech Republic as a business partner, results in a certainty of sales, inflow of customers and financial help in the form of very low price level in purchasing the goods from the distributor. On the other hand, as a part of the contract was an appendix clarifying that in case of change of strategy from the side of the firm Alpha, the customer portfolio has to be fully transferred from the firm Beta to Alpha enterprise. In addition, Beta enterprise has a very small product portfolio and goods marked with the trademark of Alpha enterprise represent very significant amount of its sales, therefore it cannot afford any incorrect behaviour in the relation to alpha enterprise. The financial value of benefit expressed in the chart is computed as 70% of the firm Beta e-B2C sales multiplied by lower border of expected gross profit margin representing 40%.

According to the trend of the situation on the market, increasing competition and factor of global financial crisis, company gives a very strong importance to not to be threaten by the investment and operational changes in the long-term point of view and if ever, than in the shortest time period possible. Therefore the planned payback time period of the whole project is strictly up to one year. The cost benefit analysis counts with the payback time period of 11.1 months as a result computed from expected benefits and costs for the first year of the project.

Figure no. 6.20 - Balance of the Cost and benefits for the 12 month period



Source : Own calculations

6.3 SWOT ANALYSIS OF DIGITALIZATION PROJECT OF COMPANY ALPHA

Considered strength

- Decrease of use of money from loan due to lower DSO ratio
- Increase in effectiveness of the operational department
- Integration of operational systems
- Lower cost of employees
- More friendly working environment, no stress
- High-margin sales in B2C
- Increase in total economic wealth of the company
- Higher EBIT

Considered weaknesses

- Necessary process of employee training
- Process of integration
- Decrease in B2B sales
- Increase of expense on employees

Considered opportunities

- Increased market share of the company
- Increased sustainability (technology integration)
- Use of EDI in the future

Considered threads

- Lost of customers due to transfer
- Unknown behaviour of the target group
- High level of competition on e-B2C market in construction materials

7. Discussion of the results

Since the work is based on the analysis through three different types of research conducting methods, it is necessary to discuss the outcomes of each of them.

According to the financial analysis, there are four groups of financial ratios with a common field of analysis and one group containing basic indicators of the financial development of the company in time. All the groups together create realistic view of the company from the financial point of view and enhanced by the history of the company in terms of performed activities, the overall develompent of the enterprise Alpha is described.

The financial analysis begins with the study of the group of basic indicators that reflects the development of the enterprise in terms of sales turnover and EBIT account. The increasing trend in the total amount of sales realized within the 8 year decade steadily grows for the whole period with only minor exceptions. The average rate of yearly growth in total amount of sales is 7% . The second basic indicator is the acount of EBIT that identify the ability of the company to revitalize after problematic key points within the measured period of time. After the payback of the initial loan from the Alpha International, the EBIT steadily grows up to the year 2009, from where it decrease and again increase in the year 2010. This short-term decrease reflects the increase of competition and one year lag due to new business strategy against competition.

The group of liquidity ratios focus on the company ability of self-sufficiency and problem-reaction capability. The current ratio and the acid test face the steadily increasing trend with exept of the year 2009 and the huge problem of unsuccesfull hedging strategy that immediatelly affect the values of both. The value of the cash ratio increase after initial debt repay in the year 2003, but instantly decrease again according to another external investment on the expansion of the Alpha enterprise.

Profitability ratios point at Alpha's very high level of the internal strength in terms of self-generated revenues and the high level of the capital consumption efficiency in the profit-generation process. Return on assets and Return on equity ratios declare that despite of the many external investments the efficiency of the investment use and return is from the long-term point of view increasing. All three profit margin ratios identify the problem of the increased competition on the market and business strategy undertaken against the increased competition that resulted in lower gross profit margin, but increase in total sales turnover. This is mainly cause by the company invasive strategy to DIY networks. The average gross profit margin is 25.5% in the year 2010, but according to high volume of low-margin sales it has decreasing tendency of approximately 1.2% per year within the period of last 3 years. Compared to the average annual increase of 7% in total sales it is not considered as a thread.

Ratios delineating the activity of the company also reproduce information that equals the business strategies realized by the company Alpha. Since the aim of these ratios compute with the time and space of the company as an assets and the general trend is to lower the assets so the time and place appear as the lowest possible cost in the revenue-gain process, the reality is very different according to the strategy of the company. The management of the firm decided to undertake two strategies that added value to the its products. Despite of the risk of repay incapability of the clients and higher value of the turnover ratios, management decided to firstly extend the invoice maturity in order to increase sales by added value created by the possibility of longer time needed to pay for the invoices, compared to competition. In the words, firm offers interest free loan to clients in the form of credit from unpaid invoices. The second strategy undertaken was to maximally extend the total stock of the company by commission storehouses that again creates an added value drawing from another increase of quality of services.

The last group of ratios measures the abilities of the company to cover the debt caused by external investment. Company was externally financed for the two times and so does look like the trend of the debt-coverage ratios. The company was externally financed for the first time in the year 2000, by the initial investment from the Alpha International with the purpose of the distributorship set-up in the Czech Republic. The debt was paid within 3 years. The second external investment was accepted in the year 2005 from the bank with the purpose of the firm expansion in mainly terms of storage options. The ratios state the decrease from the level of 85% of external finances in the company in the year 2002 to the level of 30% in the year 2008 despite of the second external investment. The level of 0% should be achieved in the time horizon between the years 2013 and 2014. Another very important information revealed by this group of ratios is the trend of ability to finance the external investments from the revenues of the company, that has the increasing trend since the repay of the initial debt in the year 2003, with only exception of the year 2009 and the huge problem with the unsuccessful currency forward.

Finally the index IN01 optimized to measure the performance of the company within the Czech Republic by the tendency to possibly bancrupt, the company is most of the time over the level considered of not-optimal. Again the year 2003 and the year 2009 causes the unlinear increase of the value of this index.

Despite the global financial crisis in the last 3 years, the company Alpha was able to continue to increase total amount of sales and therefore to prove its internal strength. Among the main factors of this achievement are included strategies of increased supplies to DIY as a reaction to decreasing sales turnover frome B2B sales channel.

However the sales channel via DIY is lucrative in terms of sales turnover, it is limited by the maximum possible amount of demand and by very hard conditions of cooperation. Therefore, the company is looking for a new perspecitve and if possible, sustainable

opportunities in terms of sales, to fix the lost of net profit due to decrease of the demand from the network of wholesalers and decreasing percentage of gross profit margin in total sales.

As a result of the financial analysis and enterprise description, the Alpha company is financially vital enough to be able to realize the project of digitalization, without developing any important financial and operational thread, therefore it confirms the Hypothesis 1.

As one of the objectives of this work is to evaluate the planned project of digitalization of the alpha company, the cost benefit analysis of the project is conducted. All the revealed future costs and benefits are expressed in the amount of money and putted againts each other for comparison and further repay time period calculation. The total amount of benefits exceeded the total amount of costs within the one year, what was the aim of the cost-benefit analysis to proove. The total amount of planned costs reached the value of 4,634,000 CZK per year in comparison to planned amount of benefits that represents the value of 5,023,240 CZK per year that defines the project of digitalization profitable and able to repay itself within the time period of one year. Therefore, according to the result of the cost-benefit analysis, hypothesis 2 is confirmed.

The SWOT analysis performed within this work as a last research method comfirms that the project of digitalization is perspective and sustainable with exceeding amounts of strenghts and opportunities over the amounts of weaknesses and threads.

Based on the outcomes of this work, company Alpha should realize the project of digitalization according to the demand of increase of the overall performance of the whole company, according to the demand of beiing able to compete with the other playres on the market of construction material and according to the demand of having an opportunitiy to further technolocialy develop.

8. Conclusion

This diploma thesis dealt with the topic of e-business and its application on the current business environment.

Theoretical background of the digital environment, e-commerce , e-business, financial analysis, cost-benefit analysis and swot analysis were examined in order to be applied in research conduction.

Application of selected parts of the theoretiacal review was held on the example of company Alpha. Therefore the thesis further examined the trends of the financial situation of the Alpha company by the financial analysis as a means of justification of readiness for the investment in the digitalization project.
In addition, this work evaluated the planned project of digitalization of the Alpha company by the cost-benefit and swot analysis in order to prove the project is perspective and sustainble.

Financial analysis was designed by proper selection of the financial ratios defined by the specialized literature and with aim to develop the most accurate results needed for the justification of decision of investment in digitalization.
Based on the individual results of the financial ratios development over the time period defined by the data availability, the company was considered to be financially healthy and strong internally enough to be able to realize the planned project without uncertainty of possible financial threats.

The evaluation of the project itself by the cost-benefit analysis within this work proved that the project is able to repay the value of own costs by the developed benefits within 11.1 months that satisfy the demands of the company Alpha on the payback period to be less then 1 year due to the current level of uncertainty in the business environment as a result of the lasting global financial crisis. More over, the number of listed strengths and opportunities within the swot analysis is significantly higher than the amount of possible weaknesses and threads, that confirms the outcomes of the cost-benefit analysis, considering the project more profitable, than costly.

Finally, as far as the company was considered being capable of undergo the process of digitalization and the project of digitalization itself was considered to be perspective and feasible, the scope and depth of the project has to be carefully chosen with consideration of the effects on the internal environment, future development and the future development of the external environment of the Alpha enterprise.

9. List of used figures

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