8th International Scientific Conference
"Business and Management 2014"
May 15–16, 2014, Vilnius, LITHUANIA
Section: Information and Communication Technologies in Business
http://www.bm.vgtu.lt

ISSN print 2029-4441/ ISSN online 2029-929X
ISBN print 978-609-457-652-2/ ISBN online 978-609-457-651-5
Article number: bm.2014.082
http://dx.doi.org/10.3846/bm.2014.082

IMPACT OF ELECTRONIC ENVIRONMENT ON BUSINESS DEVELOPMENT: CASE OF LATVIA

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Abstract. By employing advantages offered by the e-environment, entrepreneurs can ensure expedient and effective communication with the target audience, by promoting products on the global market. By this way companies, especially SMEs, can replace or compensate lacks of resources, as finances etc., because e-environment offers many free or low cost possibilities. The performed scientific studies show that proper and skilful use of modern technologies can contribute to a significant development of companies. The authors of the article analyse e-environment with the aim to show the e-environment's impact of the on entrepreneurship development. The possibilities of e-environment for entrepreneurships needs are shown, the value concept and role in a company's development are considered. Qualitative and quantitative data analysis methods, among them, statistical data processing, grouping were used. The scientific study employs observation study method, as well as comparative, and analytical methods, which are used to compare and analyse facts and assess solutions to specific issues.

Keywords: e-environment, business, e-tools, factors, information communication technology.

JEL classification: M31.

1. Introduction

The aim of the article is to analyse e-environment and its development, its importance and impact on entrepreneurship. To show how entrepreneurs can use e-environment for business needs. The study is dedicated to evaluating entrepreneurship development, as the e-environment dominance in the market increases, as well as to interaction of both fields. The article deals with the sector of information and communications technologies (ICT) as a result of e-environment development. This part analyses and describes the role of the ICT sector in modern entrepreneurship and e-environment processes.

The problem despite the fact that, e-environment developed dramatically and companies can benefits by using e-tools, but many companies are still resistant to e-tools. The authors of the paper give an account of theoretical aspects of adaptation of technologies in companies. This issue can be an explanation and solvation of the problem. As well, authors give an account of technologies as the grounds of SME development in the European Union. The e-environment is analysed in this context as a factor affecting entrepreneurship development and competitiveness.

The theoretical and methodological groundwork of the study is formed of scientific articles, monographs, regulatory enactments and researches, conference materials, internet resources, expert opinions published in Latvia and abroad.

In the paper the authors explored qualitative and quantitative data analysis methods, among them, statistical data processing, data grouping. The scientific study employs observation study method, as well as comparative, and analytical methods, which are used by the authors to compare and analyse facts and assess solutions to specific issues.

Extensive availability of internet in early 1990-ties irreversibly affected the further development of business the world over. The rapid internet development was followed by growth of the e-environment and related fields (IT, e-market, e-marketing, e-commerce, etc.).

Over a period of eighteen years, the number of internet users in the world has increased from 16 mill. people in 1995 up to 2749 mill. people in 2013 – data as of 03.2013 (Internet World Stats, 2013). In Latvia, internet started taking shape around 1992. In 2000, there were around 150 000 people who used internet in Latvia in 2000 (Internet World Stats 2013), whereas in early 2013, the number of inter-

net users of Latvia has grown to 1.277 mill. People (Latvian Internet Association 2013).

Development of internet and information technologies directly affected entrepreneurship, as a new type of entrepreneurship emerged – electronic entrepreneurship, including e-commerce.

Consumers have an important role in modern-day business models (Tapscott 2008). Firstly, owing to market development and general progress, consumer values have changed (desire to receive individual attitude; the types and rate of buying and payment processes; beliefs, opinions, and expectations as regards product prices, and other; individual shopping experience and habits, etc.). Secondly, owing thanks to information resources, mainly the internet, the consumer can quickly obtain a large amount of information about the product of interest. Thirdly, in the new e-business models, the consumer and the seller can quickly generate feedback about a product (Laudon 2009).

Regardless of far-reaching availability of the e-environment and its elements, there are entrepreneurship sectors (spheres) in Latvia, which actively use the e-environment, as well as those, in which the use of e-environment is not particularly widespread.

The use of e-environment tools in Latvian enterprises differed also depending on the company's size. Thus, in big companies of Latvia, the parameters of using such e-environment tools as a computer, internet, and a website were better than in small or medium enterprises. Companies with 10 to 49 employees use the e-environment tools least.

There are a few companies in Latvia that use internet for selling goods. According to the data of the Central Statistical Bureau of of Latvia for the year 2012, only 9.1 % of Latvian companies performed e-sales and only 23.6 % of companies have performed e-purchases. Automated data exchange is ensured in only 53 % of Latvian companies (Central Statistical Bureau of Latvia 2012).

Regardless of rapid development of the e-environment on a global scale and extensive use thereof in entrepreneurship, companies in Latvia are not employing the e-environment and its tools for entrepreneurship purposes actively enough.

The authors assume that one of the important reasons that affects and is closely related to the use of the e-environment is the aspects of technology adaptation. The e-environment consists of and interacts with various technology elements (internet, devices, software, etc.), which, for their part, are related to various continuously developing technologies, including information, production etc. technologies.

2. The ICT sector as a result of e-environment development

The ICT (Information and Communication Technology) sector has developed as a result of ICT development and it is rapidly and dynamically developing across the globe. Companies of the sector are operating in ICT production, ICT wholesale, rendering ICT services (software issue; telecommunications; computer programming; consulting and related activities; data processing, maintenance, and related activities; operation of internet portals; repairs of computers, peripheral devices, and communication equipment, etc.) (Central Statistical Bureau of Latvia 2013). The number of ICT companies in Latvia is increasing each year, along with the number of employees working at these companies, as well as their turnover. The ICT sector development on a world scale is not uniform; thus, for instance, rapid development of the sector is observed in the Asia region. Whereas, the total growth rate in the European Union for some ICT sector fields (such as, in telecommunications) has slowed down (Latvian Internet Association 2012).

In growth of the ICT sector companies, the authors draw attention to the phenomenon that some global ICT companies (e.g., Siemens AG, SAP AG, Oracle, Itella Information, Apple, Microsoft, Nokia, Samsung, Intel, Google etc.) have such a great importance in various processes and spheres of today's world that one can talk of their impact on the electronic environment processes rather than the other way around (Lake 2010). Often, global ICT companies and company groups constitute an important part of the gross domestic product and are important players in micro- and macroeconomic processes, sometimes even the lead players.

ICT companies are developers and producers of new products – devices, equipment, software, information and telecommunications technologies, etc. Thus, aspects of technology adaptation are topical in these companies, because, firstly, the company profit depends on the rate of adaptation of innovations on the market and in the society in general.

Secondly, adaptation of technologies (Gartner 2012) helps the ICT companies improve and enhance the existing technologies and products, as well as find out the market demands and requirements for products. Time is required for introducing and adapting the new technologies. This time is necessary to prepare a company for introducing new technologies – to streamline and improve the company's processes affected by the new technologies, to train employees, as well as carry out test-

ing and other activities related to new technologies in the company.

It is exactly the differing experience of adaptation of technologies in companies that, according to the authors, could be the explanation to why some companies are actively employing the e-environment for entrepreneurial needs and some do not or use it to a lesser extent.

3. Information Communication Technologies and Value – constituent elements in modern business models

There are several well-known and popular value theories, such as, the Five forces model (Porter 2008), Shareholder value model (Fruhan 1979), as well as the "Value map" theory, intended for analysing the economic gain for consumers (Kambil *et al.* 1997), etc.

Various theories were developed many years ago, when the electronic market was not yet developed, and hence are suitable for the conventional market. Due to this reason, the authors of the article suggest that companies use the Alexander Osterwalder's value proposition concept or the approach that is a constituent element of the author's developed business model canvas) (Osterwalder 2012).

The Osterwalder's business model was formed based on Freeman's stakeholder theory (Freeman 1984). The model is adapted to today's market needs and conditions, and the importance of the electronic environment, i.e. of the electronic market, in entrepreneurship is taken into account. Osterwalder distinguishes between "value proposition" and "elementary value proposition", which is an element of value proposition.

The authors wish to draw attention to Osterwalder's "value life cycle" consisting of five stages: value creation, appropriation, consumption, renewal, and transfer (Osterwalder, Pigneur 2003).

All life cycle stages are linked to value consumption, using the electronic environment: value creation (based on information and communication technologies (ICT) – adaptation of various products for the needs of an individual consumer, e.g., personal computers, footwear, etc. Value appropriation – "a one click purchase" at an internet shop. Value consumption – listening to music, watching a movie, etc. Value renewal – various software updates, value transfer – disposal of old computers and other machinery, giving away unnecessary books and equipment for further use, etc.

Upon combining analysed models, it can be seen that the information and communication technologies (in the Osterwalder's model) or the information communication technology bear great importance in creating value for consumers and that they undoubtedly affect the company's image. Nevertheless, several studies show that many Latvian SMEs do not employ ICT and therefore the most suitable way should be sought for how to involve ICT in elaborating business development models.

The value concept is broadly used in various business models, including e-business models. The value forms the basis of several business models.

The e-business model is based on mutual integration of key flows and values and implementation thereof between e-market participants, through the use of the e-environment. Three main e-business model elements can be distinguished: flows, participants, value. The term e-business model describes a broad spectrum of informal and formal models, which may be used in companies to depict various business aspects, such as operational processes, organisational structures, and financial forecasts (Laudon *et al.* 2010).

In studying various business model concepts, the authors have come to a conclusion that both business model types (taxonomic and conceptual) can be applied to the Latvian SMEs, however the conceptual business models would still be primary. It is related to the fact that there are many niche and narrow profile companies in Latvia. Moreover, the majority of companies are operating only on the local market and depend on domestic demand fluctuations.

The conceptual business models enable companies to analyse the current condition more broadly and to evaluate the already existing business. By employing this analysis, companies can develop new business development directions or improve the existing ones, because a modern market demands that companies change and are aware of their global condition. Entering the global market allows companies to reduce their dependency on local market fluctuations.

Taxonomic models, for their part, can serve as a specific type of entrepreneurship. For instance, when developing the conceptual business model, companies will answer the question "How to develop further on?", but the taxonomic model will allow answering the question "What to do in order to develop?"

Based on the authors' performed study about the use of e-environment in Latvian companies (Ščeulovs, Gaile-Sarkane 2010), having studied value formation theories, having analysed the types and theories of business models, the authors have drawn a conclusion that the most suitable course of action would be to base further development on the Osterwalder's Business Model Canvas (Business Model Foundry 2012). Forbes has referred to this business model canvas as a simple instrument for creating innovative business

models (Forbes 2012). The model is based on active use of the e-environment in entrepreneurship. There are nine stakeholder groups at the basis of the model. Meanwhile, reciprocal and effective interaction and communication between the stakeholders promotes a company's competitiveness.

The use of ICT promotes communication (Fig. 1); moreover, ICT is at the basis of the first stage "value creation" of the value life cycle.

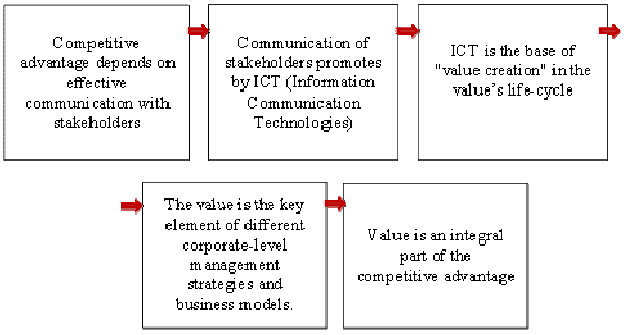

Fig. 1. Competitive advantage, ICT and Value intermediation (source: the authors' original work)

At the same time, value is an intrinsic part of a competitive advantage. It can be concluded that a competitive advantage depends on effective communication with stakeholders. The previous study done by the authors about competitiveness of Latvian companies shows that it is the use of communications networks, being a constituent element of competitiveness of Latvian companies, that the companies are using the least (Gaile-Sarkane E., Ščeulovs 2011). Thus, the authors of the paper assume that by increasing communication of the stakeholders, the competitiveness of Latvian companies will also increase.

4. E-environment as influencing factor on competitiveness and business development

The authors believe that there are three basic approaches (levels or elements) to creating a competitive advantage.

The first level, on which a competitive advantage is based, is a company's financial stability. An assumption has been put forth that only a financially sound company can be competitive.

As regards the level of competitiveness of companies, Charles W.L. Hill points out that the competitive advantage consists of four factors: effectiveness, quality, innovations, and client response. These factors make up four general blocks in shaping the competitive advantage. Hill believes that these factors are universal in the meaning of that they indicate four main directions of how to reduce costs and achieve a distinctive quality, and these directions can be adapted by any company regardless of its peculiarities or the sector, in which it is operating. Moreover, these factors are interacting (Hill, Jones1995).

M. Porter has identified also other elements, which in his opinion bear an important role in the creation of the competitive advantage. He believes that the availability of such factors as the land, labour force, capital, inputs, as well as know-how and physical infrastructures (roads, ports) is decisive in the formation of a competitive advantage. He has found that the competitiveness of a country in various sectors is influenced mostly by four groups of main factors. The influence can be manifested as follows:

- relevant combination of production factors in a country facilitates the support of a specific sector;
- intensive competition between domestic companies in a particular sector improves their effectiveness;
- strict domestic demand conditions promote the development of the local industry and consumers force companies to work more effectively;
- industries to be supported for the part of the state compete globally thus offering local companies high quality inputs at low costs (Porter 1990).

Specialists' opinions about the expansion of the meaning behind the concept of competitiveness is confirmed with the assumption by the article authors, namely, that there are not set boundaries between various levels of competitiveness.

Upon having analysed various sources of scientific literature, the opinions of leaders and specialists of the economic thought as regards competitiveness and the creation of competitive advantage, the author has compiled (in Table 1) the opinions regarding the groups of factors influencing competitiveness (Šceulovs 2013).

Table 1. Groups of factors influencing the development of a company (Source: Ščeulovs 2013)

Factors influencing the competitiveness	Authors								
	Kotler P.	Krentlere K.	Bernhardt K.	Kinner C.	Jobber D.	Bearden W.	Ingram T.	Laforge R.	Mead G.
External factors		*X*	*X*	*X*					*X*
Demographic factors		X	X	X					
Economic factors	X				X				
Internal factors		*X*	*X*	*X*					
Culture factors	X								
Social factors	X	X	X	X	X	X	X	X	

Based on previous table factors' groups the authors have compiled factors affecting competitiveness from company inside and outside, because in each group there is factor "use of e-environment" (in Table 2 and offer the following grouping of factors.

Table 2. Factors influencing a company's competitiveness and development (source: compiled by authors)

Factors	
EXTERNAL FACTORS	INTERNAL FACTORS
Natural resources	*Use of e-environment*
Human resources	Financial stability of a company
Geographic location	Business sophistication
Economic development level and other macroeconomic factors	Availability of a unique product
Export and import volume	Competences of managers and employees
Level of coordination of laws regulating the business environment	High product quality
Membership in global organizations, alliances	High service level
Level of coordination of the business environment	High effectiveness (relation between the efforts invested in making the product and the products made)
Development of technologies	The number of consumers and its increase
Use of e-environment	Cost advantages
Political factors	A different market strategy
Globalisation	Know how
Social and cultural factors, demographic factors	Profit level above sector average
Education level	
Sectoral development level	
Intensity of competitiveness between sectors	
Intensity of competitiveness of related and supported sectors	
Presence of production factors	
Peculiarities of domestic demand	
Suppliers	
Buyers	
Substitutes	
Potential new market arrivals	
E-market development	
Cultural peculiarities	

The authors of the article believe that the use of the e-environment can be both the external and internal environment factor affecting the company's development and competitiveness. Moreover, the influence of the e-environment is spread at all three levels – the company, sector, and state level, as it has become an element of practically all fields that have had an impact on the modern world.

The authors' assumption is confirmed with the study conducted in July 2011 concerning the competitiveness of Latvian companies (Skuja 2012). Nearly six hundred Latvian companies participated in the study. Upon analysing the study results, seven key elements forming competitiveness in Latvian companies were distinguished:

1. employee effectiveness;
2. availability of physical resources;
3. availability of financial capital;
4. business strategy;
5. *use of communication networks*;
6. impact of the external environment;
7. operating results compared with the competition.

Upon summarizing the study results, it is concluded that Latvian companies must use various instruments fostering business competitiveness more actively and effectively, in particular referring to communication networks, which in essence is the electronic environment.

Having analysed scientific sources, as well as the opinions and beliefs of economists among other specialists, the authors of the article relate the creation of competitive advantage with the creation of a value proposal to the consumers. The creation of value proposal includes several stakeholders, such as companies, clients, partners, suppliers etc.

5. Communication tools affecting company marketing, presence, recognisability, and identification in the e-environment

The importance of communication in entrepreneurship keeps increasing, companies ever more often pay major attention to information flow occurring between the client and the company within the framework of the communication process (Siliņš 2007). Communication must be lasting and continuous, exhaustive and comprehensive. Communication in the electronic environment helps ensuring a company's presence, identification, and marketing.

E-environment tools of marketing communication

All companies are communicating with their clients. Normally, messages and linked media are used in marketing communication to reach out to

the market. Many modern tendencies in entrepreneurship are applicable also to marketing communications. For instance, the transfer from client service to building relations with the client; the transfer from human resources to human relations.

Modern-day companies use integrated marketing communication in their work, including online and offline marketing channels (Kotler *et al.* 2000). The aim is to ensure consistency of the message and expand media use. Online marketing channels are electronic environment instruments or tools, such as e-marketing campaigns or programmes, search engine optimization – SEO, pay-per-click, e-mails, advertisement flags and banners, webinars, blogs, microblogs, internet TV and radio, etc. Offline marketing channels include traditional printed (newspapers, magazines) editions, mailed orders, public relations, radio and television, etc.

The authors propose grouping marketing communication e-environment tools using, marketing communication mix elements. The name of the marketing communication e-tool group corresponds to the name of the complex element of marketing communication (Table 3).

Companies can use the majority of e-environment tools without making considerable financial investments. The key resource is human capital. An employee or employees are necessary for creating and maintaining, as well as regularly handling all of the company's e-environment tools, ensuring feedback, etc. It must be done on a regular and continuous basis, it is related to continuity of information flow in e-environment, as well as to a large speed of information circulation.

Table 3. Marketing communication e-environment tools (source: compiled by authors)

Name of e-environment tool group	Example of e-environment tools (name)
Active sales tools	E-mail
	E-brochures
	Direct mail
Tools for promoting sales	Sales tools (*eBay*, *Amazon*, *Alibaba.com*)
	Group buying sites *Cherry.lv*, *Kuponi.lv, Zizu.lv, Perkamkopa* etc.)
PR creation tools	Press releases (published on websites, blogs, as well as sent out to media agencies – *Leta, BNS, Wordpress* etc.
	Blog (*Twitter*, *Blogspot*, *Facebook* etc.)
Equivalent to participation in fairs and expos	Corporate homepage/online store
	Corporate product galleries (*Flickr.com*, *Twitpic.com*)
	Corporate Ads (*Youtube.com* etc.)
Advertising tools	Banners, pop-up, links, ads
	Corporate homepages un profiles in social internet networks
	Integrated ads (*Google.maps*, *Facebook.com*, *Foursquare.com*)
	Ad portals *(Ss.lv, Reklama.lv, Zip.lv* etc.)
Sponsoring tools	Banners and links on partners' homepages etc.
	Special sponsoring portals (*Ziedot.lv*, *Redcross.org*, *Forgenow.org*, etc.)
Branding tools	Information sources *Wikipedia.org* etc.)
	Various sites (galleries) for placing illustrations, presentations, etc. (such as, for products and similar) (*Flickr.com*, *Slideshare.com* etc.)
	Corporate websites and other websites
Market study tools	Websites for client surveys (*Visidati.lv", Google.docs, E-formas.lv*")
	Tools for studying consumer behaviour in the e-market (*Adchemy.com*, *Mindbody.com*)
Equivalent to participation in fairs and expos	Corporate website and/or online shop
	Corporate product galleries (*Flickr.com*, *Twitpic.com*)
	Corporate trailers and videos (*Youtube.com* etc.)

E-environment tools for presence and identification

The table below provides a summary of e-environment tools, which help a company announce its presence or inform about it in the e-environment, as well as – if the company is already present in the e-environment – identify and find it (Table 4).

Recognisability e-environment tools

Social internet networks or portals play an important role in marketing communication with clients and potential clients in the electronic environment. Social networks online enable multilateral communication, including feedback. By use of online social networks, companies can implement activities that can achieve all three of the aforementioned aims – marketing, presence, and identification (Fig. 2).

Table 4. E-environment tools for identifying and presence affirmation of a company in e-environment (source: compiled by authors)

Name of e-environment tool groups	Example of e-environment tool (name)
Tools for presence and identification	Various online social networks (*Facebook.com*, *Twitter.com*) *Draugiem.lv* etc.), incl. business-oriented social networks (*Linkedin.com*, *Myspace.com*, *Wordpress.com* etc.)
Tools for presence and identification	An opportunity to get a corporate e-mail address, where the main domain name corresponds to the company's name (e.g., name@companyname.lv)
Tools for presence and identification	Search engines (*Google.com*, *Yahoo.com* etc.)
	Reference portals (*Aol.com*, *Zl.lv,Europages.com* etc.
Statistics portals	Allows identifying the visitors and how they come across the company or information about it, search key words, searchers' language of communication, location and other information. Many services are free of charge (*Google/analytics* etc.)
Sites for finding way geographically	When searching an object, the user on a map or on the website sees a company's ad or information about a product. (*Google.maps*, *Foursquare*, *GPS* systems)

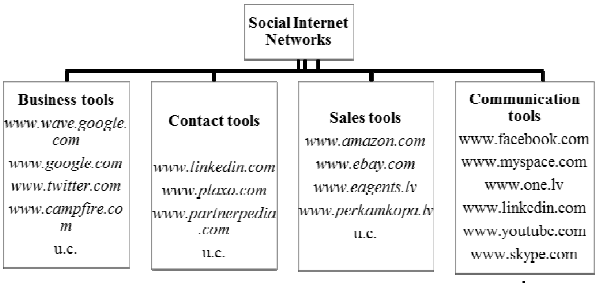

Fig. 2. Social Internet Network for business needs (source: the authors' original work)

1. Business and Contact Social Networks

The main purposes of business social internet portals is to enable mutual communication and information exchange between the people of the business world. The main functions of these social business networks (Штайншаден 2011):

- establishment of new business contacts;
- maintaining business profiles of companies, their employees, management, as well as of people, who consider themselves to be a part of the business world;
- ensuring online links to entrepreneurs sites (blogs, websites, etc.);
- human resources management function – offers for vacancies, job search opportunities;
- an opportunity to obtain various expert opinions and studies;
- existence of various discussion groups and an option to create them.

Entrepreneurs can use the opportunities offered by corporate social networks and can ensure the following gains from active participation in corporate social portals: extensive circles of business contacts (consumers, suppliers, intermediaries, etc.), moreover, clients form a part of interest (or sector) groups.

Members can use corporate contact networks when providing various consultations or receiving them from specialists in different sectors, such as, law, marketing, finances, etc.

2. Sales and Communication Social Internet Networks

Shared interests, values, and beliefs bring people together in social internet networks. The concept "social network" is used in the article refer to generally known communication platforms used in interpersonal communication.

The authors suggest dividing the social portal members into three groups depending on their activity level:

1. members, who create their original content;
2. members, who comment, repost, vote, evaluate, forward the content created by others;
3. members, who consume the content created by other members.

Opportunities of using social internet networks as a sales channel:

- virtual "direct sales" – at the place of socialisation of the target group, goods or services (insurance services, tickets, banking services, software, travelling information, etc.) are offered;
- faster sales time (provided that the consumer has made a positive decision on the purchase, based on references made by the social network members);
- faster client service and support;
- etc.

Opportunities of using social internet networks as a communication channel:

- to create brand supporter groups, communities;
- to address a precise target audience in "their" environment;
- to faster get the idea of the current wishes and interests of the consumer;
- to receive criticism and respond to it;
- etc.

Social internet networks are an important entrepreneurship instrument in the electronic environment. When using its potential efficiently, the entrepreneur can expand the sales channels and the market share, by increasing sales volumes, as well as approbate and offer new or modified products to consumers and quickly receive feedback about the products. Companies can analyse and accurately segment the target audience, implement various marketing activities, start or develop e-commerce, etc.

The authors suggest that entrepreneurs are more active in using social networks, cooperating with them, enjoying the opportunities offered by these networks for entrepreneurship development, including:

- communication and team work platforms (BaseCamp, Google Wave), ensuring communication, process management (sales, promotion, etc.), records, data exchange, and the option of creating virtual workgroups;
- ensuring connections and communication (Skype, MSN);
- publicly available software (Google Doc's);
- various applets for direct communication with partners or clients (WhatsApp Foursquare, Instagram).

To improve the entrepreneurs', employees', and managers' knowledge about e-environment tools, working principles online and on the electronic market, it is necessary to increase digital literacy and skills. In this process, various training types and models can be used, including e-training, which over the last few years has been gaining popularity among entrepreneurs. E-training can be used for acquiring and expanding knowledge and various skills (Born 2010).

6. Conclusions

The development of business and information technologies (incl., electronic environment) has resulted in close interaction between both fields, which led to the formation of several business models that are based on information technologies. Whereas, information technology companies now are significantly influential in the business and other fields.

Upon having analysed the data of the European Union member states about the use of technologies in entrepreneurship and their impact on national macroeconomic indicators, regulatory documents of the European Commission, as well as reports about entrepreneurship development, it is concluded that the use of technologies (incl., information technologies) positively affects not merely entrepreneurship and related processes, but also national macroeconomic parameters.

Information communication technologies (ICT) bear major significance in value creation for consumers, which definitely affects company image. Many Latvian SMEs are not using information communication technologies. Therefore, the most suitable way should be sought for integrating information technologies in elaborating small business development models.

There is a range of internal and external factors affecting the activities of companies. Electronic environment is one of the important factors for companies, especially SMEs.

Electronic environment, as a factor, influencing activities of a company in two ways – positively and negatively. Authors offer positively and negatively e-environment factors' classification.

Organisations that use or plan to use the electronic environment for entrepreneurship development must have a sound communication culture and high motivation of the employees to work in the e-environment. The entrepreneur must have the skills and abilities for working in the electronic environment. Likewise, it is essential to be aware of the high level of responsibility when working with social networks, as opinions voiced online can significantly influence a company's operations. Communication processes and information dissemination in social internet networks takes place extremely fast, and the entrepreneur must know how to control these processes and respond to various, including, emergency situations, as well as must bear responsibility for the outcome.

References

Business Model Foundry: The Business Model Canvas [online] [accessed 12 November 2012]. Available from Internet: http://www.businessmodelgeneration.com/canvas

Born, J. 2010. *eLearning – Praxisbuch: Online unterstützte Lernangebote in Aus-und Fortbildung konzipieren und begleiten: Ein Hand- und Arbeitsbuch.* Baltmannsweiler: Schneider Verlag Hohengehren GmbH: 251-252.

Central Statistical Bureau of Latvia 2012: Enterprises with the number of employees 10 and more which are have sold goods or services via internet or other computer networks [online] [accessed 17 December 2012]. Available from Internet: http://data.csb.gov.lv/Table.aspx?layout=tableViewLayout1&px_tableid=IT0140.px&px_path=zin__Datoriz%C4%81cija__IKT%20lieto%C5%A1ana%20uz%C5%86%C4%93mumos&px_language=lv&px_db=zin&rxid=cdcb978c-22b0-416a-aacc-aa650d3e2ce0

Forbes: Business Model Canvas: A Simple Tool For Designing Innovative Business Models [online] [accessed 18 December 2012]. Available from Internet: http://www.forbes.com/sites/tedgreenwald/2012/01/31/business-model-canvas-a-simple-tool-for-designing-innovative-business-models

Freeman, R. 1984. *Edward Strategic Management: A stake-holder approach*. - Boston: Pitman, 276 p.

Fruhan, W. 1979. The NPV Model of Strategy - The Shareholder Value Model, in *Financial Strategy: Studies in the Creation, Transfer, and Destruction of Shareholder Value*. Homewood, Irwin: 122-124.

Gaile-Sarkane, E.; Ščeulovs, D. 2011. Information Technologies for Sustainable Business Development: Case of Latvia, in *The 15th World Multi-conference on Systemics, Cybernetics and Informating proceedings.* Volume I. Orlando: IIIS.76–81.

Gartner Inc.The Gartner Research Process and Methodologies [online] [accessed 10 December 2012]. Available from Internet: http://gartner.com

Hill, C.; Jones, G. 1995. *Strategic Management: An Integrated Approach.* 9th edition. Mason, Cengage Learning, 106-111.

Internet World Stats: History and Growth of the Internet from 1995 till Today [online] [accessed 20 January 2013]. Available from Internet: http://www.internetworldstats.com/emarketing.htm

*Internet World Stats: Latvia Internet Usage Stats and Telecom Repor*t [online] [accessed 21 January 2012]. Available from Internet: http://www.internetworldstats.com/eu/lv.htm

Kambil, A.; Ginsberg, A.; Block, M. 1997. Rethinking Value Propositions. Working Paper, *NYU Centre of Research of Information Systems*. 34-36.

Kotler, P.; Jain, D.; Maesincee, S. 2000. *Marketing Moves: A New Approach to Profits, Growth, and Renewal*. Harvard: Harvard Business School Publishing Corporation. 212-214.

Lake, S. 2010. *Today's Innovations, Tomorrows Trends: Learning Technology that is Supporting Improved Performance Brandon Hall Group* [online] [accessed 8 December 2012]. Available from Internet: http://www3.gotomeeting.com/en_US/island/webinar/registrationPost.tmpl?Action=rgoto&s=2

Latvian Internet Association: Telekomunikāciju tirgus sadrumstalotība ved pie tehnoloģiskās atpalicības (2006-2012) [online] [accessed 14 December 2012]. Available from Internet: http://lia.lv/aktualitates/57/_infografika_telekomunikaciju_tirgus_sadrumstalotiba_ved_pie_tehnologiskas_atpalicibas_20062012/

Latvian Internet Association: [online] [accessed 12 December 2012]. Available from Internet: http://lia.lv/statistika

Laudon, K.; Laudon, J. 2009. Management Information Systems: Managing the Digital Firm. 11th edition. Upper Saddle River: Prentice Hall. 640.

Laudon, K.; Traver, C. 2010. *E-commerce*. 6th edition. Upper Saddle River: Prentice Hall, 2010. 960-961.

LR Centrālā statistikas pārvalde: Informācijas un komunikācijas tehnoloģiju (IKT) sektors [online] [accessed 5 December 2012]. Available from Internet: http://www.csb.gov.lv/statistikas-temas/termini/informacijas-un-komunikacijas-tehnologiju-ikt-sektors-35416.html

Porter, M. 2008. The Five Competitive Forces That Shape Strategy, *Harvard business Revie*w (01).

Porter, M. 1990. *The Competitive Advantage of Nations*. New York: The Free Press. 705.

Tapscott, D. 2008. *Grown Up Digital: How the Net Generation is Changing Your World*. New York: McGraw-Hill. 368.

Osterwalder, A.; Pigneur, Y., 2003. Modeling Value Proposition in *E-business, ICEC'2003 Proceedings*. Lausanne: University of Lausanne, 2003.

Skuja, A. Nordea Bank pētījums „Latvijas uzņēmumu konkurētspēja" [online] [accessed 7 December 2012]. Available from Internet: http://www.nordea.lv/Uz%C5%86%C4%93mumiem/Vitametrs/1521412.html

Siliņš, A. 2007. *Inovatīva domāšana*. Rīga: SIA "Lietišķās informācijas dienests". 56-57.

Ščeulovs, D. 2013. *Use of electronic environment in entrepreneurship development*. Doctoral thesis. Rīga. 86-87.

Ščeulovs, D.; Gaile-Sarkane, E. 2010. Identification of factors affecting consumer habits in the e-environment, *Business and Management 2010 selected papers.* Volume I. Vilnius: VGTU Press „Technika". 965–970.

Штайншаден, Я. 2011. *Социальная сеть феномен Facebook*. Санкт-Петербург: Питер. 102-103.