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Social technology management

INFLUENCE OF SOCIAL NETWORKS TO ENTERPRISE

Master's thesis

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Vilnius, 2015

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INTRODUCTION

Research relevance: Currently there is an opinion that social networks are relevant to businesses, especially for the ones, which just started it's activities, because social networks made it easy and cheap to popularize their products and services, or simply to declare the newly established enterprises.

However, the social networks influence to enterprises is difficult to assess. This can be done by analyzing the fast-growing business involvement in social networks and the statistical analysis.

Exclusivity of the topic. As for Lithuania, can be said that there are not plenty scientific information sources of local authors how social networks affects enterprises. Social networks are analyzed through the social aspects in Lithuanian authors scientific sources. For this reason, it is important to carry out a detailed analysis of the social networks and assess their influence on the rapidly emerging enterprises.

Problem: Globally social networks are very popular, but it is not clear what influence to enterprises it does (if it does any).

Research object: Evaluation of social networks influence to the fast growing enterprises in Lithuania.

The research question: Are social networks an effective tool for the growth of enterprises?

The object of the work: To analyze and select social networks, assess their influence to the rapidly developing enterprises in Lithuania.

Work Tasks:

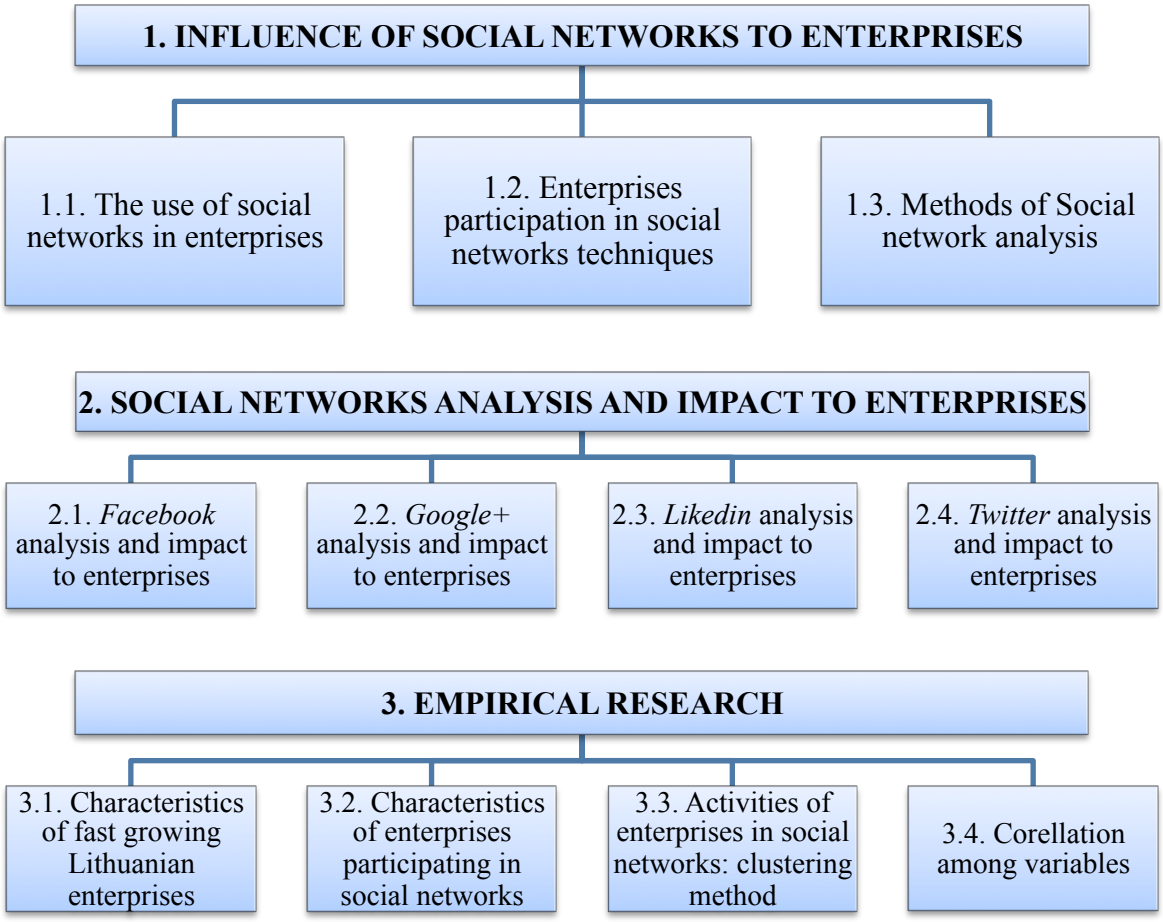
- Review and evaluate the influence of social networks to enterprises;
- Analyze the major social networks used in Lithuania;
- Perform social networks statistical quantitative research, set relationships between the variables and assess the influence of social networks to enterprises.

Research methods:

- Analysis of scientific literature;
- Quantitative statistical analysis;

Practical significance of the work: The practical significance of the work shows a quantitative study aiming to identify social networks influence to enterprises by certain variables (activities, marketing strategies, changes in sales, annual turnover and number of employees). Results of the study will show how enterprises participate in social networks and relationships with variables, also will determine what influence to the enterprises social networks does.

The structure:



Picture 1. Master's thesis logical structure scheme

1. INFLUENCE OF SOCIAL NETWORKS TO ENTERPRISES

It is an opinion qualitatively created account in social networks may become enterprise's second site, where customers are choosing who prefer to communicate in person than access to official reports, press releases. It is important that the account is kept active and that it would be looked after responsible, trained and communicative enterprise's employees. It is necessary to reply promptly and constructively to user reports, place new information, support news stream (Mann I., 2012, p. 194). This means that the enterprise's presentation of a variety of social media allows obtaining information from their customer's convenient ways, and to the enterprise it means receiving feedback through one more channel with business partners and customers.

However, one of the world's largest business consulting companies "McKinsey" research shows that the vast majority of managers have no idea how to take advantage of the benefits of social media.

According to A. Vaitkevičiūte managers' participation in social networks raises doubts as consumers discuss online about products and brands, share tips. Enterprises find it difficult to track these conversations, to interfere in it. Second, there is no clear link between social networks affect and financial indicators. Executives of the enterprises also concentrated to the return on investment, that it places too little financial and human resources for social network marketing.

It can be argued that there is an opinion that social networks have a positive impact, but enterprises' executives are afraid to invest by reason of unknown outcome.

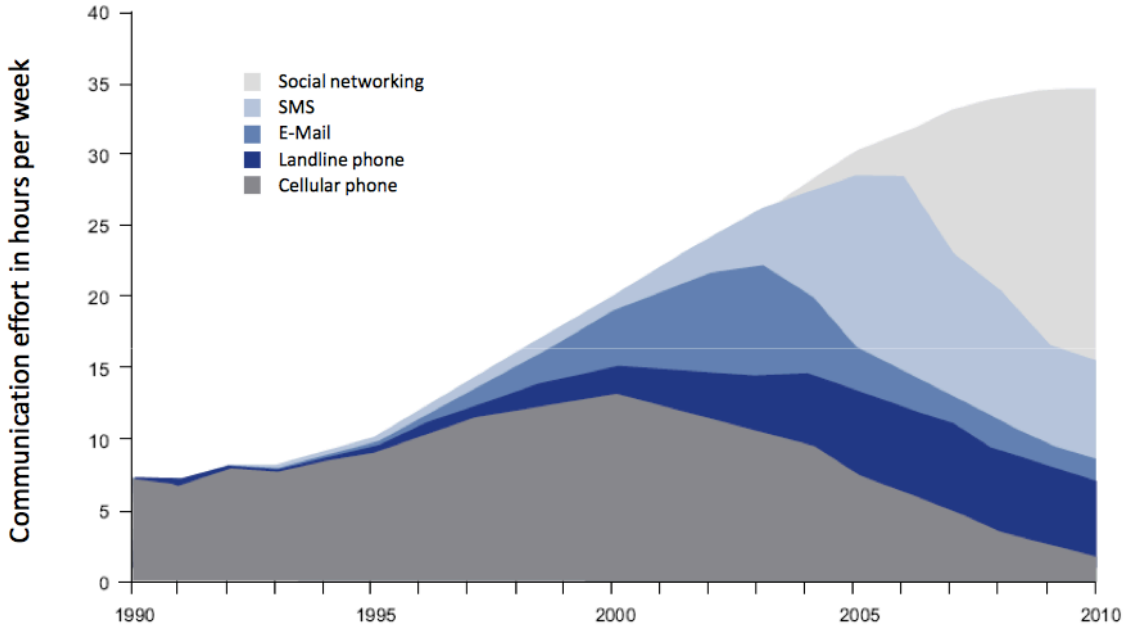
The next section will examine how social networks are using in enterprises.

1.1. The use of social networks in enterprises

The term "social network" is mostly related to sociology and Internet domains. In sociological aspect, social network - it's a certain social structure, which is composed of individuals (or organizations) called "node" which is closely related to one or more interrelationships: friendship, kinship, economic relations, sympathy or antipathy, sexual relations, faith (religion), education, hobbies, social position.

In general, social networks are defined as networks of interactions or relationship, where the nodes consist of actors, and the edges consist of the relationships or interactions between theses actors. A generalization of the idea of social networks is that of information networks, in which the nodes could comprise either actors or entities, and edges, denote the relationships between them.

(Aggarwall C. C., 2011, p. 2).



Source: BODENDORF F. (2011). Social Media Analytics: p. 5.

Picture 1. Changes in communication behavior of 15-25 year old people.

Social networks – a new communication and information dissemination method (Picture 1). During past 10 years they have outdone human communication techniques such as: mobile phone calls, text messages, e-mail services.

Social networks – an interactive structure of the Internet, which allows to each individual to create a public or semi-public (with certain restrictions) profile and interact with other users who share your information (Boyd D. M., Ellison N. B., 2007, p. 216).

The main function of social networks - to create ”online” communities of active people who would share interests or occupations with other people. Social networks provide users with various modes of communication, such as e-mail or instant messaging services (Bell D., 2009, p. 175).

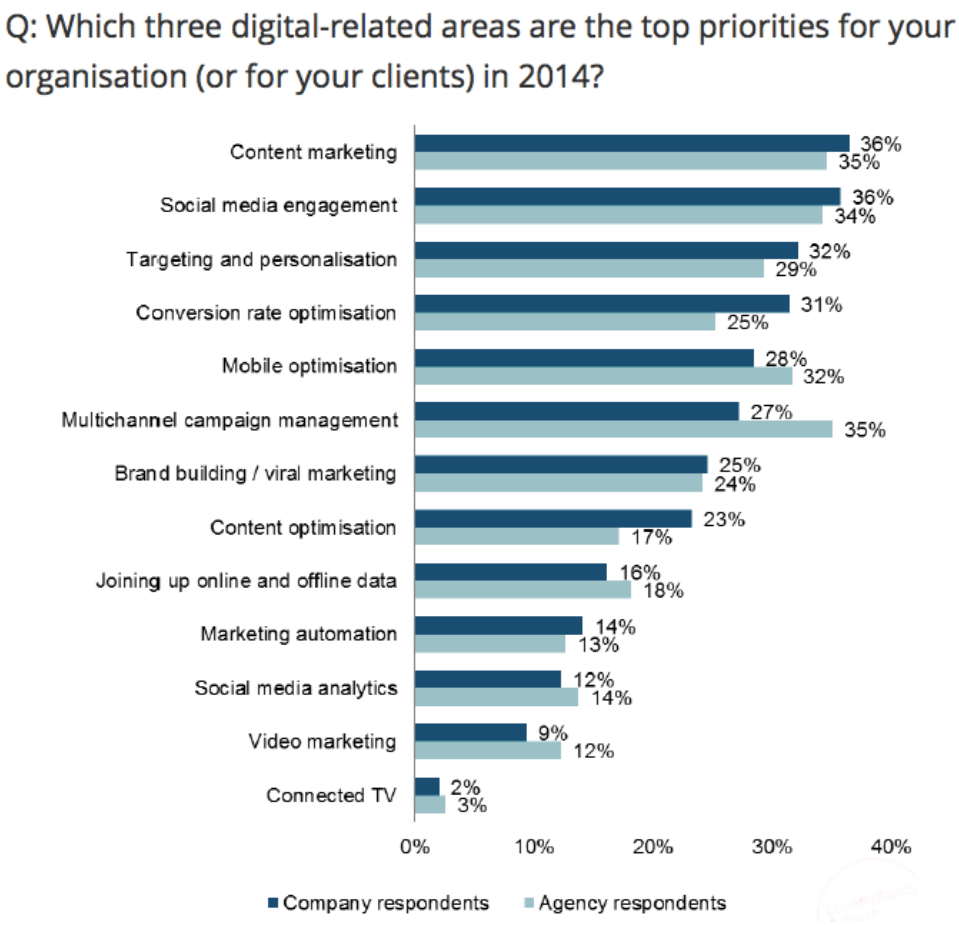
Social networks have the following characteristics:

1. *Quality.* Shared links, which are from the official websites;
2. *Trust.* When trustworthy people share certain content, users willingly read and analyze it;
3. *Popularization.* Within a few minutes link can be shared by dozens of people;
4. *Everything happens shortly.* Content novelty and uniqueness (Macy B., Thompson T., 2011, p.75).

Properties above suggest that social networks can be successfully used for business purposes, because quality and trust, popularity, time saving is important for business.

In order to establish and develop an enterprise is not enough just a few unique ideas or unique properties. One of the most important things is the resource from external or entrepreneur external connections that can be created by using social networks. By properly using them, entrepreneurs can benefit their business, which is measured by: the supply of multimedia information, helpful resources availability, new business opportunities, markets.

17th of March 2014 "Adobe" and "Econsultancy" conducted a survey, which was attended by 2.5 thousand marketing specialists (B2C and B2B sectors' representatives). According to the survey content marketing (36%) and participation in social networks (36%) are a key priority in the development of corporate marketing activities in 2014 (picture 2).



Source: UK digital media stats. Internet access: <http://www.digitpro.co.uk/2014/02/25/uk-digital-media-stats/>.

Picture 2. Digital technologies in enterprises.

The use of social networks in enterprises is presented in this section.

Social networks are usually operated as customer relationship management (CRM) tool for the companies that sell products and services. CRM by using social networks technology is

characterized by three features:

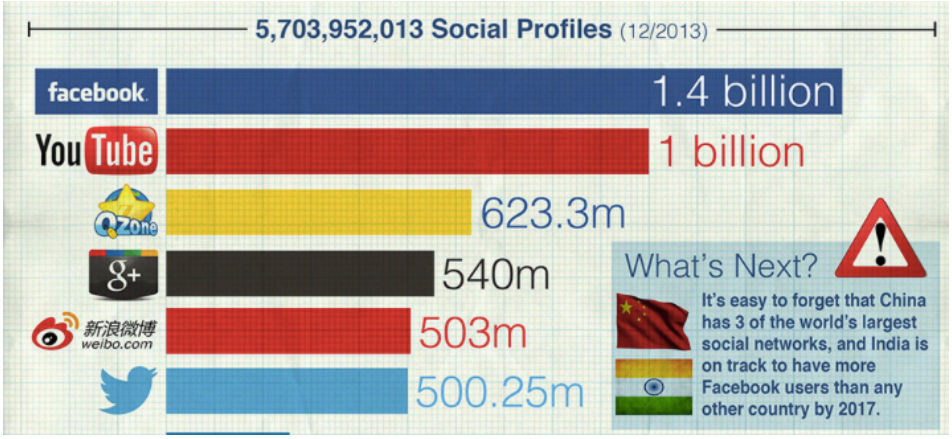
1. Openness. In the social networks such as *Facebook*, *Twitter* any opinions about enterprise can be publicized and published by everybody, who lives anywhere in the world. The form that answers to customers, the response time and enterprises in social networks allow enterprises to promote its values, strengthening brands. Real-time social networks are mutual CRM, because as customers and pursuing them to be able to find out more about enterprise, just as enterprises seek to extract information about their customers. A sign of openness in fact that each person fully completes their profile information, so pursue the CRM in the social networks, enterprises are not responsible for data collection about their customers.

2. Orientation to the client. In social networks people share information about themselves in real time. Each individual division of themselves, fully filling the profiles with information about education, places of residence, work and hobbies can be used for marketing purposes. With such information marketing experts can determine which segment is best suited to one or other advertising. Personalized sales, marketing are used to target groups.

3. The importance of the customer's needs. In social networks it is very important what people who are liked by others customers, recommend. Trust in this case is like an information filter, which helps customer to decide what to buy and what decisions to make. For broadcasting functions social networks are ideal platforms called "word of mouth". Consequently, enterprises must invest more in customers loyalty by giving access to social networks, which provides information about the products that they themselves would become effective (Shih C., 2009, p.12).

Another use of social networks is advertising which is placed in the banners or commercial text ads. Advertising, which are specified by age, sex, and education are used effectively in social networks. For example: *Facebook* for two main features: active, signups volume users and user activity, in a variety of activities is an important platform for marketing professionals.

Business operates globally, social networks - the easiest way to connect with customers from all over the world. 3rd of January, 2014 adobe.com announced social networks from around the world that has the most users (picture 3). The social network *Facebook* takes the first place, which number of users is up to 1.4 billion, followed by YouTube with 1 billion users. For these numbers of users it is obvious that social networks can provide the global market.



Source: Waite J. (2014). Which Social Networks Should You Care About in 2014? Internet access: <http://blogs.adobe.com/digitaleurope/2014/01/03/social-networks-care-2014>.

Picture 3. Social networks users.

Application of social networks sites have extended towards business and brands are creating their own, high functioning sites, a sector known as brand networks. It is the idea that the brand can build its consumer's relationship by connecting their consumers to the brand image on a platform that provides them relative content, elements of participation, and a ranking or score system. (Bell D., 2009, p. 178). In this simple way, the brand is popularized and social networks services gets much of their revenue from advertising, provided by web pages set up and accessed by users. Users in their profiles proclaiming a lot of information about their interests, create a market for marketing professionals to serve targeted advertisements based on that information (Turk, A., 2009, p. 5).

Using social networks businesses not only advertise their products and services, but also creates nonrandom communities that agree to a certain point of view, useful for business development. For example, the US enterprise *Naked Pizza* has developed a community, which combines natural foods and healthy eating philosophy (Fiegen, A. and etc., 2011, p. 129).

Bodendorf F. 2011 in the conference report claims that social networks are classified according to typically starting community character. Distinguished international community (for example: *Facebook, MySpace, Friendster, Orkut, Xanga*) and national (for example: *Lokalisten.de, studiVZ*). Another distribution way is according to the ambit in which social network is oriented: daily life, business, the media, and trade (picture 4).



Source: Bodendorf F. (2011). *Social Media Analytics*, p. 8.

Picture 4. Social networks.

Social networks can be classified according to the target group. In this case, the network is designed for: students, experts and managers and adult individuals. Often Social networks do not have the target group. This means that they are intended to worldwide users (picture 5).

Name	Facebook	Friendster	Bebo	Linked.in	MySpace	...VZ	Twitter	Xing	TheNext
Type	Live Oriented Community	Live Oriented Community	Media Oriented Community	Business Oriented Community	Media Oriented Community	Live Oriented Community	Live Oriented Community	Business Oriented Community	Retail Oriented Community
Date of foundation	2004	2002	2005	2003	2003	2005	2006	2003	2006
Target group	All the world	All the world	All the world (music and video enthusiasts)	Experts and managers	All the world	Students, all the world	All the world	Employed persons (people over 18)	All the world

Source: Bodendorf F. (2011). *Social Media Analytics*, p. 9.

Picture 5. Types of social networks.

Social networks can also be classified according to their purpose: social connections, multimedia sharing, related to the professions, science, and hobbies. Social networks are appointed

to academics and information seekers.

In summary, the social networking use opportunities for business are:

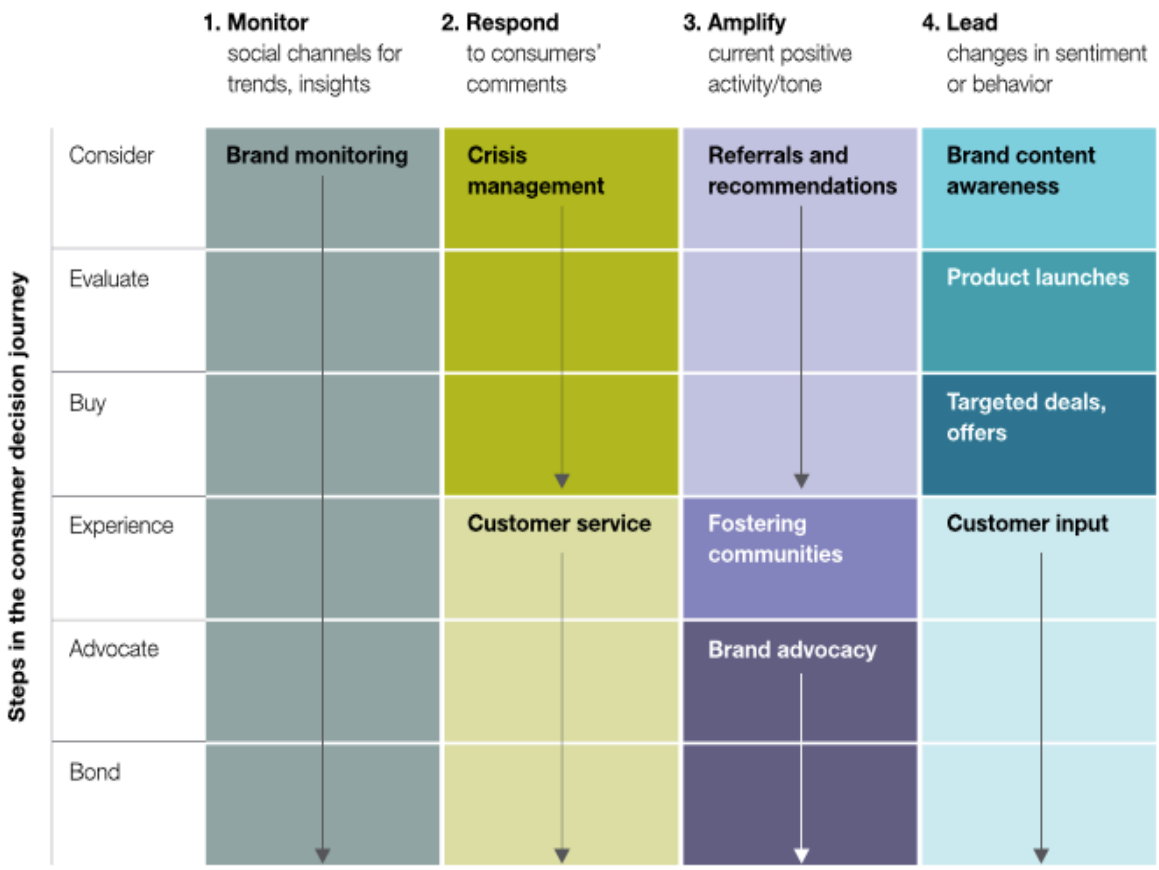
- Customer relationship management (CRM);
- Required information availability.
- The new business opportunities, access to market information;
- Attainability of customers from all over the world;
- The popularization of the brand;
- Collection of useful information to marketing purposes;
- Business philosophy development, strengthening customer loyalty;
- Attracting customers to electronic stores pages.

It should be noted that in order to reap the benefits of social networks, enterprises are required to participate in them. The next section provides an overview of what enterprises participation in social networks techniques.

1.2. Enterprises participation in social networks techniques

Dartmouth University of Massachusetts Marketing Research Centre conducted researches, those 500 enterprises, including the fastest-growing enterprises in the US uses social networks. Of these 83% *Facebook*, 71% *Twitter*, 61% personal blogs, 44% Online videos (Fiegen A. and etc., 2011, p. 130).

According to R. Divol, there is four major undertaking's participation in social networks functions: monitoring of consumer behavior (monitor), respond to user requests (arespond), to strengthen the relationship with customers (amplify), and keep the user in the desired direction (lead) (picture 6).

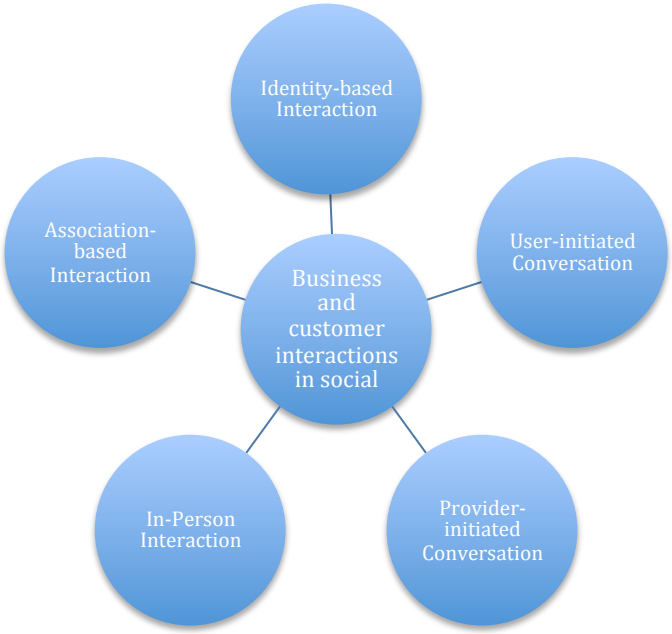


Source: Divol R., Edelman D, Serrazin H. (2012). *Demystifying social media*. Internet access: <http://www.mckinsey.com/insights/marketing_sales/demystifying_social_media>.

Picture 6. Function of enterprises participation in social networks.

Social networks efficiency unlikely without these features.

Highlights five consumer and business relationship building techniques using social networks (Rhxo Technology Group, 2013):



Source: according Rhxo Technology Group (1999-2013). Social Media Development made by author. Internet access: <http://www.rhxo.com/services/social-media-development/>.

Picture 7. Business and customer interactions in social networks.

Declaration based on identity interaction. Business entity declares its value, indicating what it is and where it can be found. In other words, it is "About Us" page or section on websites such as *Facebook* or *Twitter* pages. It is thus possible interaction with the customer is not high, but a declaration at a glance the customer can evaluate critically or favorably.

Associations-based interaction. The opportunity for customers to start cooperation with business or business itself with customers. This is achieved, for example using *Facebook*, "inviting to be friends" i.e. initiating adoption of the social networks circles, using a blog roll or tags.

User-initiated Conversation. This is an opportunity for consumers to create and submit their opinions and questions, and from business side - the opportunity to answer them. Business representatives take the opportunity to be at the right time and serve their customers.

Provider-initiated Conversation. The way to find out customers opinion, emotions about product or services. Business agent initiates communication with the client by asking, creating challenges in communicating respectfully, saving not only your but also the customer's time.

In-person Interaction. This is a personal chat in real time, which receives a lot of positive feedback and makes significant business benefits.

As previously mentioned, that *Facebook* is currently the most popular social network in the world, worth making methods that enable *Facebook* for the business needs. There are suggested 15

steps, which to be carried out with this social network to use for the business purposes:

- Establish an enterprise page;
- Post regularly;
- Invite your friends;
- Promote your *Facebook* page to existing customers;
- Set up a customer URL;
- Add a *Facebook* status widget to your home page and a *Facebook* logo link to your navigation;
- Add *Facebook share and Facebook* connect features to your site, and also display the "AddThis" widget on your pages;
- Use *Facebook's* richness to your advantage;
- Staff for customer;
- Advertise for new fans using *Facebook*;
- Ask questions;
- Have a contest or host an event or meet up.
- Be active in the community;
- Monitor your quality scores;
- Try out the *Facebook markup language* (Funk T., 2011, p. 54-57).

After completing these steps businessmen enables social network *Facebook* as a marketing tool.

In summary, enterprises can use social networks in their activities. It's enough to know a few ways, but there is a major problem. Enterprises are using social networks, however, its benefits or harm for business are not completely clear, there is no clear link between social networks and their impact on the enterprise's financial indicators. If it can be shown that social networks are based on the investment that guarantees money returns, corporate executives certainly use this tool for their business.

The next section provides methods, which are used for the analysis of social networks.

1.3. Methods of social networks analysis

To fulfill social networks efficiency to enterprises need to set appropriate efficiency measures.

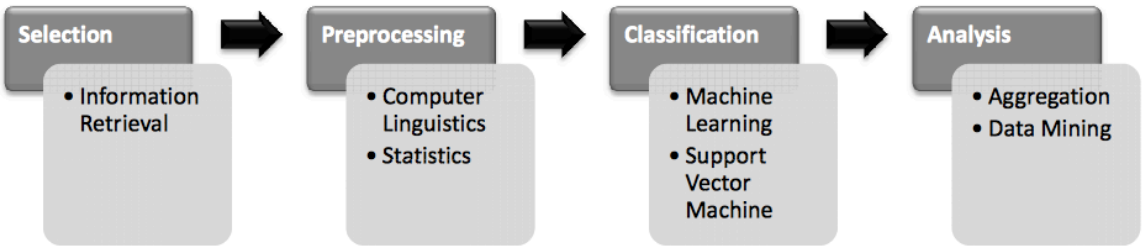
Basically, can be measured the impact of social networks by focused on the value of dialogue with customers. However, to reach the goal should be integrated social environment into a joint

marketing program, to set up a monitoring center, to assign responsible people who immediately respond to customer inquiries on the internet (Divol R., 2012).

The examination of the influence of social networks to identify the authors prefers methods: correlation, data analysis graphs (Jenssen J. I., Koenig H. F., 2002 p.104; Swamynathan G., Wilson Ch. and etc., 2008, p. 3).

General data analysis using classical methods - statistical data analysis clustering, associative networks. Based on these methods, created specialized methods and tools to investigate social networks using their quantitative and textual data.

Bodendorf F. for social media analysis offers text and network mining, swarm intelligence and the early warning methods that can be used to create an assessment model that shows social networks impact to the business (Bodendorf F., 2011, p. 2). The main social networks analysis methods.



Source: Bodendorf F. (2011). *Social Media Analytics*, p. 29.

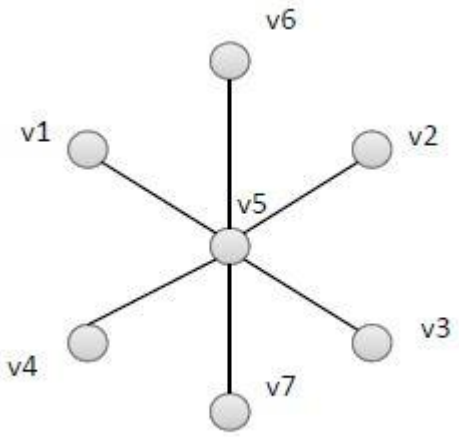
Picture 8. Social networks analysis.

Text Mining. The purpose of this method is to identify the necessary information and knowledge from unstructured text. The semantics of the content or data mining techniques to customize unstructured or semi-structured data.

Network Mining. Social network analysis is performed by monitoring the interactions of various members of the group. Characterized centrality (individual member position) and centralization that characterizes the entire networks. There are two different approaches:

- The degree of centrality shows the number of direct contacts;
- Proximity of centrality shows the number of indirect contacts.

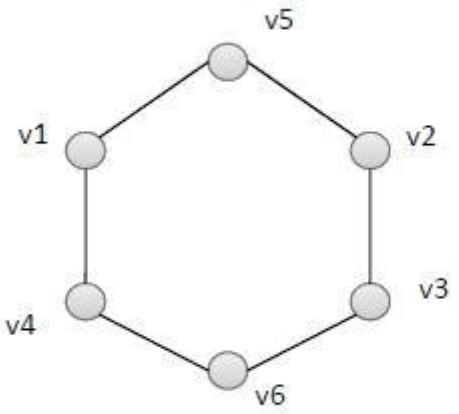
Centralization can be a star and circle structures.



Source: Bodendorf F. (2011). *Social Media Analytics*, p. 47.

Picture 9. Star structure.

Star network structure has a maximum centralization compared with other size networks. (v5 - has a maximum centrality (picture 9).

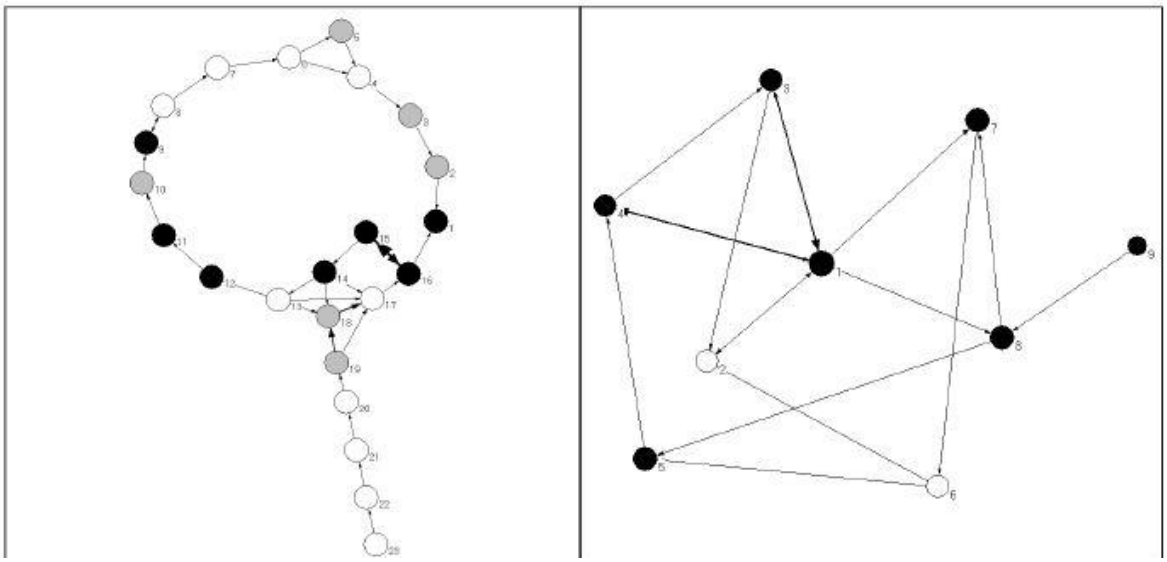


Source: Bodendorf F. (2011). *Social Media Analytics*, p. 47.

Picture 10. Circle structure.

By comparison, the circle network structure is characterized by a minimum of centralization, because each node has the same character of centrality (picture 10).

The analysis of social networks by network analysis can possess a positive opinion with white disc, negative - black, neutral - gray, and communication - an arrow, in such case, displayed networks lead to certain conclusions of the analysis of social networks (picture 11).

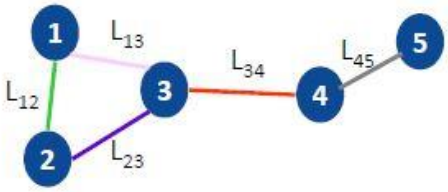


Source: Bodendorf F. (2011). *Social Media Analytics*, p. 50.

Picture 11. Method of networks analysis.

The first network obvious small centrality, low density. Network shows that going on a balanced discussion. The second network shows that there is a high level of centralization, high density - a trend occurs easily.

Link-based clustering. The bottom line – to do clusters network members and remove links that connect different clusters (inter-cluster links).



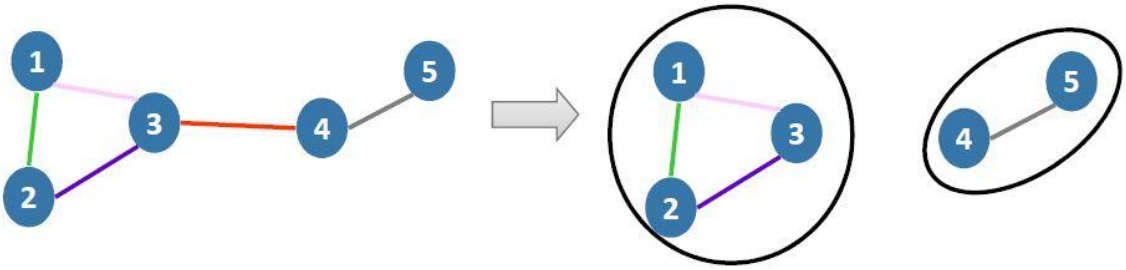
Link	Shortest paths that run through the link	EB
L_{34}	1⟺4 2⟺4 3⟺4 1⟺5 2⟺5 3⟺5	6
L_{12}	1⟺2	1
L_{13}	1⟺3 1⟺4 1⟺5	3
L_{23}	2⟺3 2⟺4 2⟺5	3
L_{45}	1⟺5 2⟺5 3⟺5 4⟺5	4

Source: Bodendorf F. (2011). *Social Media Analytics*, p. 52

Picture 12. Link-based clustering.

Link based clustering using the elastic edge (Edge-Betweness) algorithm. Connection edge resiliency - is the shortest paths between the numbers of objects that are going through.

Some communication clusters are connected only with a few *inter-cluster* communications, and then all the shortest paths going through these links, so the links that connect clusters have high edge elasticity.

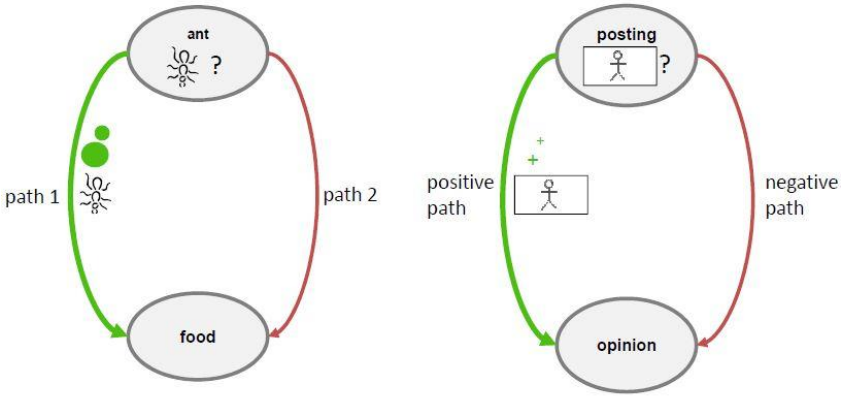


Source: Bodendorf F. (2011). *Social Media Analytics*, p. 53

Picture 13. Relationship-based method explanation.

Removing access to the highest edge of the elasticity, the clusters are separated from each other and network-clustering structure is created. It should be noted that a measure determining connections must be removed.

Swarm intelligence. Swarm intelligence applicable to the analysis of social networks, given that the social networks members are identified with cluster (by birds, ants with the opinion of the real-time operation of the formation of social networks in communities).



Source: Bodendorf F. (2011). *Social Media Analytics*, p. 32

Picture 14. The principle of swarm intelligence is used for the analysis of social networks.

Swarm intelligence can be called a phenomenon that arises from the social structure of communicating agents, if over a time period the resolved problems number is greater than separately.

Estimated assumptions: interactions, problem-solving potential. Exhibit the following characteristics: flexibility, immunity.

Ants, bees, wasps and other termites can execute complex tasks in enterprises. In terms of co-operating groups of people on collective process - the exchange of information and their opinion during the discussion, organized society sharing knowledge is more productive than separate individuals.

Submitted social networks analysis methods mainly analyze the consumer opinion extraction. However, there are no suggested methods showing the impact of social networks makes to the business.

The experimental section will perform a statistical quantitative analysis.

2. SOCIAL NETWORKS ANALYSIS AND IMPACT TO ENTERPRISES

In a constantly changing and technologically sophisticated world social networks became indispensable communication tools to communicate, to participate in various enterprises' activities, observe and comment major world events.

Lithuania's largest social networks agency "social marketing" carried out a survey that revealed the most popular social networks used in Lithuania. Results suggest that the social network *Facebook* is the undisputed leader. Most of the interviewees use *Google+*. However, many people not doing anything in this social network, only monitoring the situation. The third place among the most used social network - *LinkedIn*, which have the best professional database in the world. 53% of respondents said they have a profile in this social network. One of the world's most popular social networks -*Twitter* didn't find users in Lithuania. 50% of respondents indicated that they have profile in this social network, but only 20% of them are active social network users.

Social networks started to exist quite recently in Lithuania, so we are still learning how to use these networks efficiently. Even brands that have previously tried to gather thousands of fans, now understood the importance of not only the quantity but also the quality.

The following sections will be dealt with, the analysis of social networks and their impact on businesses.

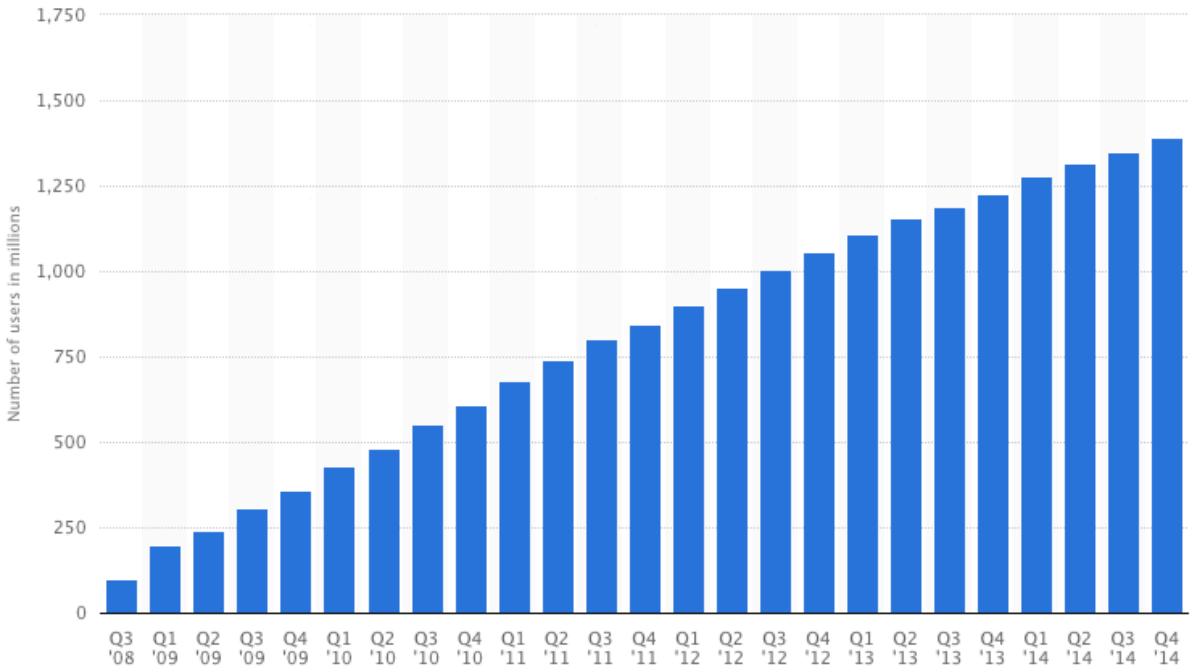
2.1. *Facebook* analysis and impact to enterprises

Facebook page provides information that eleven years ago Mark Zuckerberg Harvard University student created a social network *Facebook*, which was intended only students for this university. After two years *Facebook* became so popular that it was permitted to use it to foreign students. 2008 web information has been translated into other major foreign languages - German, Spanish and French. Over the years *Facebook* became available to residents of all countries.

Based on “eBizMBA” data *Facebook* is currently the largest and most popular social network in the world. To clarify, can be said that this is "web space", in which accumulated very large amount of information. The own profiles in this social network have one-sixth of the world's population, while at the same time *Facebook* are using several million people around the world.

There is an opinion that *Facebook* has become an excellent tool to attract a large proportion of potential customers. At the moment *Facebook* has more than a billion active users. Picture 15

shows the social network *Facebook* active users number in millions. The picture shows that each year the number of active users is constantly growing.



Source: The statistics portal. Internet access: < http://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/>

Picture 15. Number of monthly active *Facebook* users worldwide (in millions).

Enterprises can create a business page in the social network *Facebook*. Social network *Facebook* policy states that *Facebook* business pages is the most appropriate tool to represent and promote the business, enterprises, brand, or spread some idea. A business page has many advantages and opportunities compared to a personal profile, which helps users find an enterprise in the social network *Facebook*. Business pages can be described as a site. Only they are allowed to individual projects, the unique design options, differences in appearance and many other (Halloran, M., 2012).

Facebook devoted much attention to the pages functionality, in which people spend a lot of time. Many *Facebook* pages organize various games and gives prizes to attract more people and publicize the service or product. Another advantage of *Facebook* pages is that only it can see people not signing up on *Facebook* social network. Thus, in summary can identify the key benefits of business page:

- There is no need to connect to your *Facebook* account to see the social network business page content;
- Page can be advertised on *Facebook*;

- There is a possibility to use various applications;
- Page has more design options;
- All users who have become fans of the enterprise is interested in the enterprise, so communicated promotions and proposals will not be a surprise. On the contrary, the creation of a fake profile and with a lot of "friends" does not mean that they are interested in proposed business news.

Igor Mann argues that social networks purpose is to use modern sales caching techniques and maintain feedback to customers. Arrangement of groups in social networks is one of the latest trends on the internet. Social networks can be informal knowledge of the enterprise's work. In social networks can be discussed client problems, gather ideas for enterprise's develop, to test concepts, to check theories and other.

However, this social network also has its limitations:

- Most successful is youth-oriented promotional campaigns, because namely young people make up majority of *Facebook* users. Unfortunately, practically completely inappropriate B2B model - worth begin only for SEO, or expect to hit the organizations employees as individuals, who might later at work remember your enterprise and will call on business purposes.
- Not all enterprises friends are potential users - some may "knock" only because of interesting movies, games, and are not necessarily interested in your products/ services.
- Oriented not to instant sales (although such variant is possible), but to long-term relationships with customers like with friends. It takes a long time to make your fans appreciate your enterprise as their friend, to trust it and decide to purchase goods/ services.

Despite *Facebook* shortcomings, figures show that people not tend to abandon the use of this social network. Supersize *Facebook* popularity urges entrepreneurs and enterprises to develop their business pages and promoting its service or product in the social space. Successfully created a business profile provides an opportunity to interact directly with customers, identify their needs, build strong relationships, and improve the enterprise's image.

2.2. *Google*+ analysis and impact to companies

Google+ was launched in July 2011 and till that year September was only available for "elected" circle. Since September, have been made available to a wide audience, from November *Google*+ offered profiles to business and public organizations and other communities.

Google+ has been designed to widen the homepage *Google* use, so people whom already had

Gmail, easily became *Google+* users. This is the reason why *Google+* within a very short period of time has reached millions users.

With the availability to create a business page in this social network, the world's corporate giants do not hesitate to delving into this social network cognitive and use. According to some enterprise executives, *Google+* will force businesses representatives to change their approach and to get closer to their customers even more closely because of the new Google+ Hangouts capability, allowing real-time video chats maintaining communication with existing customers, partners and even connect to video (Sorokin A., 2012).

Picture 16 shows differences between *Google+* profile (for an individual person) and *Google+* page (for a business).

Feature	Google+ Profile	Google+ Page
Add pages to your circles	Yes	Yes
Add profiles to your circles	Yes	Yes, but only if profile owners mention your page or add it to one of their circles first
Participate in games	Yes	No
Share to extended circles	Yes	No
Participate in a hangout from a mobile device	Yes	No
Click the +1 button to support pages and posts	Yes	No
Display the +1 button below your logo for visitors to click	No	Yes

Source: Rutledge P. A. Tech yourself Google+ in 10 minutes, p. 41.

Picture 16. Difference between *Google+* profile and *Google+* pages.

Although this social network successfully penetrated the US and other English-speaking business market, to Lithuanian entrepreneurs are hard to adapt to new innovations and not in a hurry to exploit the new possibilities offered by the social network. Such passivity may be for excessive big conservatism and avoiding changes in business strategy. But at least to try and look closely at *Google+* business profile opportunities may be useful.

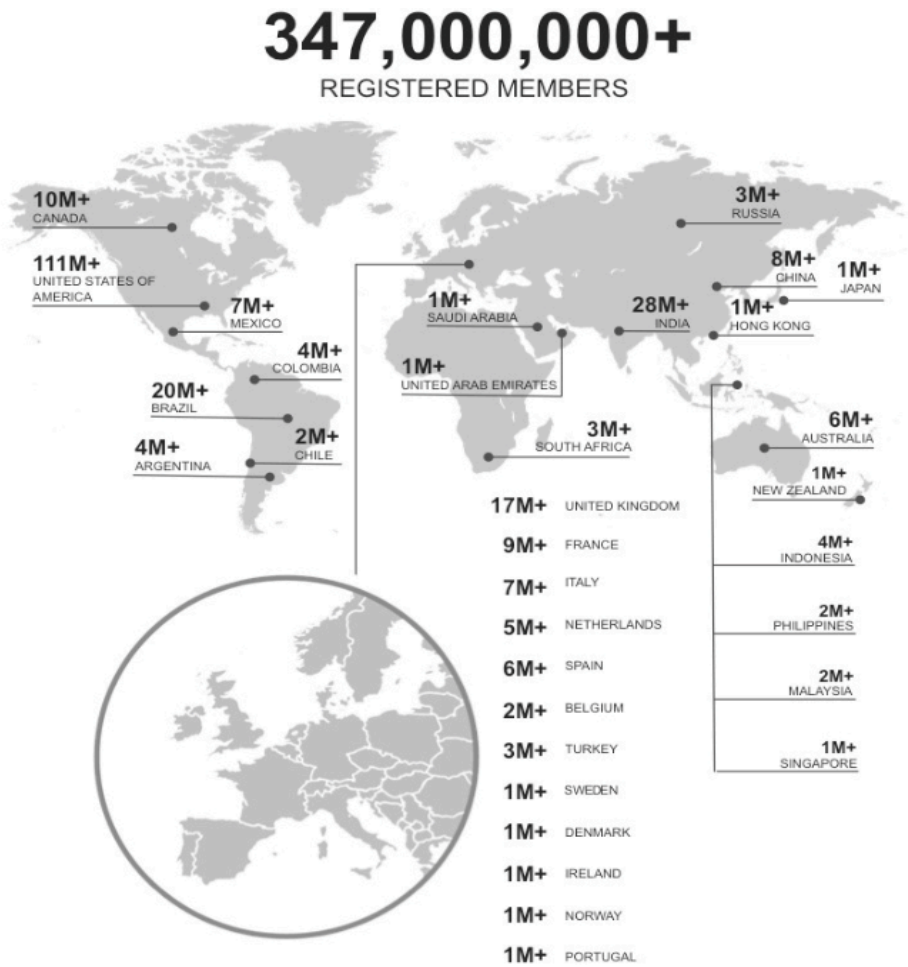
It can be argued that the websites' *Google+* is very successful, because in a very short period of time from the users side received an overwhelming response. The big advantage that *Google+* from the very beginning has been linked with an e-mail account *Gmail*. A very large number of

Internet users have e-mail mailbox precisely on this website. It is unlike most other social networks, not only used by young people, but users of different ages, with different interests and with greater purchasing power.

2.3. *LikedIn* analysis and impact to companies

In the social site *LinkedIn* information page "Newsroom" was found information that *LinkedIn* was founded in 2002. This social network purpose is to communicate with business partners, establishing new professional contacts and find jobs or employees. The social network already has more than 300 million members and is currently the largest professional network in which a multidisciplinary team communicate with each other, engage a new business connections, share useful information, and the company engages its fans and looking for new (Miliut J., 2012).

Picture 17 shows the social network *LinkedIn* users number and location in the world. In the picture we can see that the vast majority of social network users are in USA.



Source: The new conversation about LinkedIn. Internet access: <http://deswalsh.com/linkedin/>

Picture 17. Social network *LinkedIn* registered members.

LinkedIn is a great tool to keep in touch with people, with who intended to have a business relationship in the future. Users' profiles presented with information about education, former workplaces, personal abilities, so you can see and observe the familiar person can have availability.

"Internet Ideas Ltd" leader names five factors, which can be used to deliver additional user attention and raise trade. So to win more popularity it is advisable to:

Create a social group and organize discussions. To create your own social group is difficult, because it takes time to attracting users. For this reason, it is also advisable to connect to existing groups, and then the discussions can begin much faster, because the group has already its audience.

Contact directly. Discussions should help reveal what users currently need. If you notice that a person is interested in what you can give, you can send a private message - to introduce them and explain why you are writing.

To link product information sources with a personal profile. If a person has its own social network *LinkedIn* profile and a business blog it is advisable to combine these profiles, that people visiting the personal profile would be able to see at the same time information about what services or products provided by a person or enterprise in which he works.

Increase personal profile popularity on a social network LinkedIn. First of all, about social network profile has to know more people. Need to advertise them properly. This can be done using e-mail link to your *LinkedIn* profile, on business card by adding your *LinkedIn* profile link, as well as to add a link to your *LinkedIn* contacts on personal or business website.

Have recommendations. Positive recommendations from clients, colleagues or partners can help to attract new potential clients and useful contacts. As well as recommendations for strangers shows that you are a reliable person and worthy of attention.

So social network *LinkedIn* is designed to find new business connections, to look for work, to exchange useful contacts. Here you meet various professional disciplines specialists who share useful information with each other. This website popularity is growing because users make sure of *LinkedIn* confers a benefit. Usually, users have contacts of persons with whom it would be useful to have business relationship in the future, as well as existing partners and other familiar colleagues.

2.4. *Twitter* analysis and impact to companies

2006 was founded social network *Twitter*. This social network user can send short messages (maximum 140 characters), this social network is more oriented to mobile phones, rather than the computer (Macy, B. 2011).

So *Twitter* can be a useful tool for the business market, but its exploitation has to be very

specific.

Picture 18 shows countries with the highest number of *Twitter* users.

COUNTRY	% OF USERS
United States	50.99
United Kingdom	17.09
Australia	4.09
Brazil	3.44
Canada	2.92
India	2.87
France	1.76
Indonesia	1.43
Iran	0.88
Ireland	0.85

Source: Beevolve. Internet access <http://www.beevolve.com/twitter-statistics/>

Picture 18. Top 10 countries with the highest number of *Twitter* users.

In US, UK, Australia, this social network is popular enough and entrepreneurs who wish to announce enterprise news, promotions, it is recommended to use this network.

Statistics of *Twitter* shows that the majority of Lithuanian business is still difficult to see *Twitter* benefit for the business and do not want to invest in this social network opportunities. Of course, if the business is for the Lithuanian market, *Twitter* may be bypassed, but in order to operate in the international market, this site should become one of the major social networks.

All these social networks can help businesses using them responsibly. The social networks are not miraculous way towards a successful business. This is the only tool, which management can be trusting only to the person who has a good knowledge of communication and particular product or service.

This means that the perfunctory and superficial maintenance of business profiles and update information contained in it, does not guarantee success, but they can also harm the business.

In the next, experimental section will be investigated the influence of the social networks to rapidly emerging Lithuanian enterprises.

3. EMPIRICAL RESEARCH

To investigate and prove social networks effect enterprises activities during January, 2015, was collected data from one hundred enterprises : activities, financial data, participation in social networks (Appendix 1, 2). Basic data were collected from the portal “Rekvizitai.LT”. Lithuanian enterprises were selected, “Gazelle”.

USA economist David Birch moved gazelles from nature to the business because it is a small enterprise, testing new markets or new products, which often do not survive, but if they are lucky, they grow and create new workplaces. "Gazelle" award moved to Europe and adapted the Danish business newspaper “Börsen”. Danes followed the Swedes, Poles, Estonians, Latvians and Austrians, Slovenes and Lithuanians. (Mitusch K., Schimke A., 2011).

“Gazelle” - the fastest-growing Lithuanian companies by the last 4 years of sales, the list of which consists daily “Business News” past eleven years.

Aim of the project - not only to provide information and knowledge on issues of concern to small businesses, but also to draw the public's attention to the new market leaders, bringing together these potential enterprises, encourage them to exchange the efficient experiences ("Business News").

Also, enterprises must meet the following requirements:

- Any form of ownership of small businesses with a turnover growth last 4 years;
- First year comparison enterprises turnover from 0.5 to 10 million litas.
- Earnings during the period under review must be positive;
- Enterprises agree to publicize financial indicators.

“Gazelle” mark in Lithuania and other countries are increasingly becoming synonymous of quality.

With a chosen enterprises were collected and processed data. In the following subsections will investigate the characteristics of enterprises.

In order to find out characteristic of enterprises, which are involved in social networks by enterprise scope: marketing, changes in sale, annual turnovers, number of employees. In the analyze will be used IBM SPSS 19 software package.

For the analyzes will be used these variables, which reflect enterprises’ characteristics:

- Activity;
- Marketing strategy;
- Changes in sale;

- Annual turnover;
- Employees.

And variables, which describing enterprises' activities in social networks:

- Facebook likes;
- Facebook people talking;
- Google+ observers;
- LinkedIn followers;
- Twitter followers.

In order to clarify enterprises' characteristics in each social networks, first of all selecting social networks using SPSS statistical program function "Select Cases", then with a function "Descriptive", which allow describe variables, will be possible to see some companies characteristics, which participating in social networks.

The next step will be performed cluster analysis. Clustering - this is a distribution of the analyzed objects into different groups, also called clusters, that group's objects would be similar with each other, and objects from different groups are dissimilar.

Divided data into clusters will be searched connections between variables, seeking correlations. On the correlation analysis determined the strength of statistical relation between observed variables.

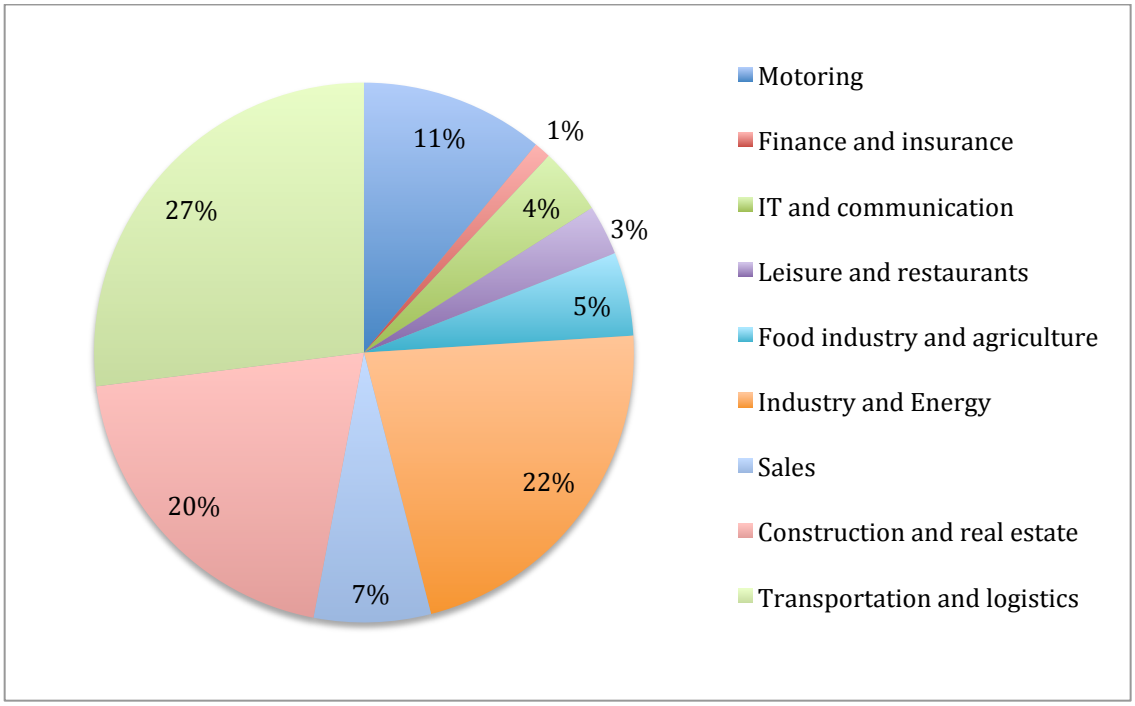
Also searching for communications between variables and enterprises participating in social networks, will attempt to verify the hypothesis:

- Enterprises popularity of social networks dependent on enterprises activities area;
- Marketing strategy is correlated with the use of social networks;
- There is a connection between enterprises sales changes and participation in social networks;
- Annual turnover is correlated with the use of enterprises social networks;
- There is a connection between employees number and enterprises participation in social networks.

The next section will be processed and systematized collected data in order to see which enterprises were chosen. Visibility to their activities, marketing strategy, financial data, and participation in social networks.

3.1. Characteristics of fast growing Lithuanian enterprises

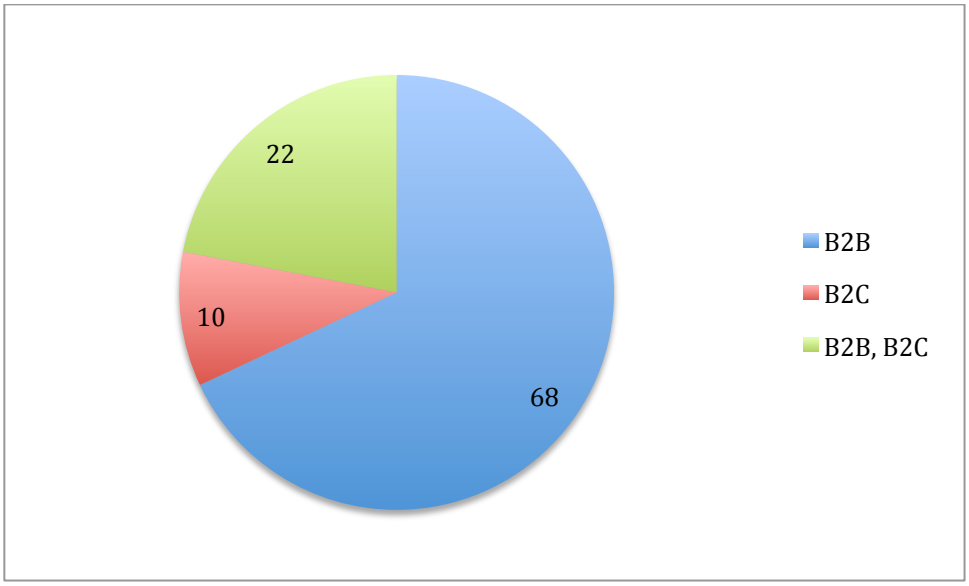
First of all, enterprises have been ranked by activities.



Picture 19. Distribution of enterprises by activity.

To one hundred enterprises gazelles slammed nine enterprises working in different areas. Of these, mainly consist of transport and logistics, at least - finance and insurance.

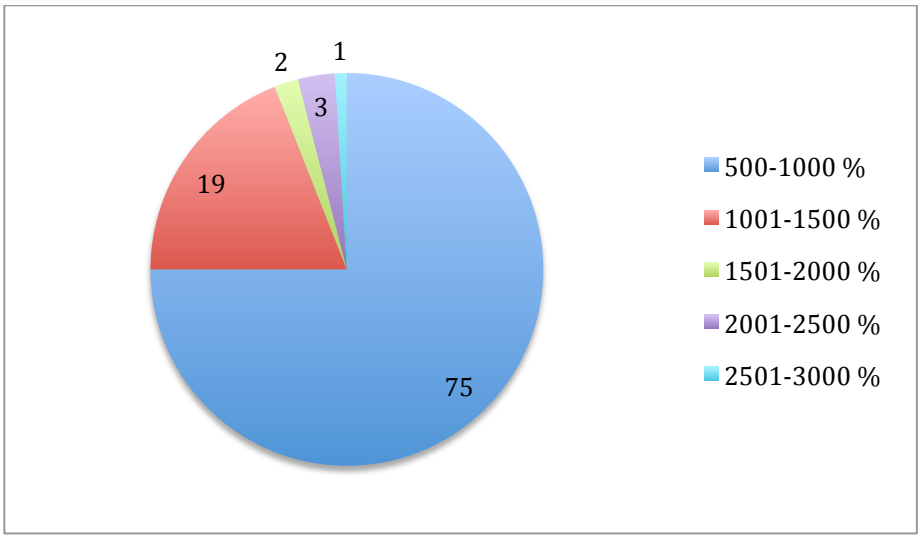
The next step was to determine the enterprises' marketing strategies.



Picture 20. Marketing strategies.

Apparently majority consists enterprises which using business-to-business strategy, at least - business-to-customer.

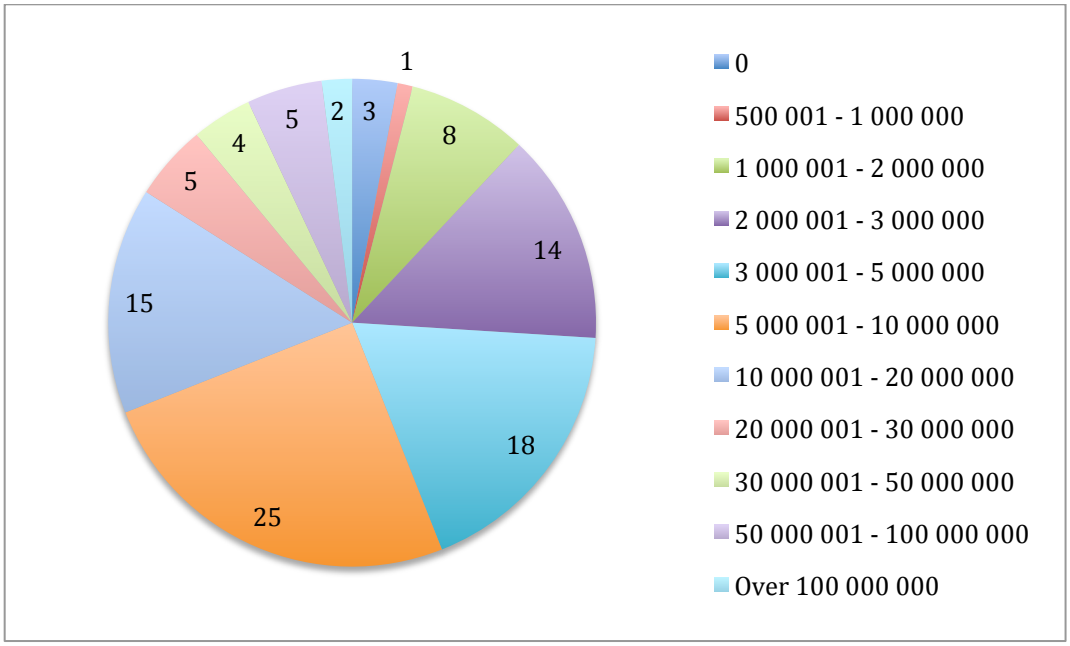
"Gazelle" is the fastest growing enterprises in terms of sales, was shown the four-year sales changes in enterprises'.



Picture 21. Change in sale (2009-2012) %.

Actually 75 enterprises sales grew between 500-1000%. Others – much more. Sales growth is very rapid and it proves that it is a serious enterprise that is growing and evolving.

Also collecting financial indicators was abstracted turnover in 2013. Enterprises were ranked into several categories, according to the annual turnover.

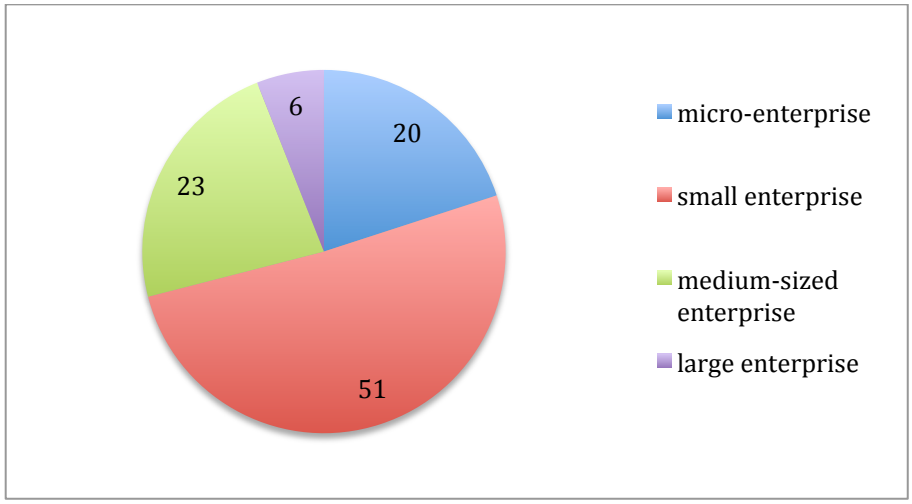


Picture 22. Annual turnover 2013, Eur.

Picture above, we see that quarter enterprises' annual turnover is from 5,000,001 to 10,000,000 euros in 2013.

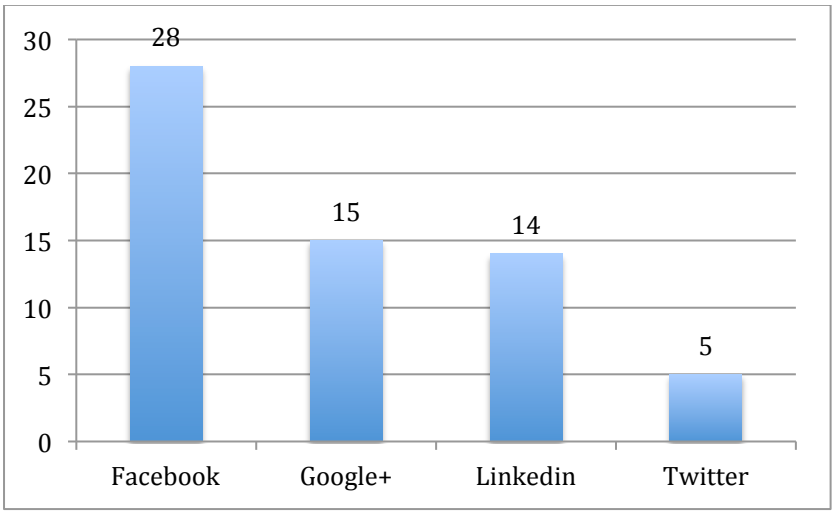
According to the republic of Lithuanian small and medium business law, taking into account the number of employees, enterprises has been ranked by size:

- *Micro-enterprises.* When it employs 1-9 employees;
- *Small enterprise*. When it employs 10-49 employees;
- *Medium-sized enterprise*. When it employs 50-249 employees;
- *Large enterprise*. When it employs 250 or more employees.



Picture 23. Enterprises size by number of employees.

Picture above shows, that a little more than half of surveyed enterprises are small enterprises. On the next picture we can see enterprises participation in the social networks.



Picture 24. Enterprises participation in social networks.

It is visible that enterprises participation in the social networks - passive. From a hundred enterprises only 28 have a *Facebook* questionnaire, and *Twitter* is used only by 5 enterprises.

Thus, examination of the analyzed undertakings characteristics turned out the following results:

- Most enterprises are working in Transportation and Logistics, Industry and Energy, Construction and real estate activities;
- Most of the enterprises strategy - Business-to-business;
- All sales of enterprises grew during the years 2009-2012;
- The vast majority of enterprises in 2013 had a turnover from 5,000,001 to 10,000,000 euros;
- The majority of enterprises are small enterprises;
- These enterprises are not reluctant to use social networks. The verification of the popular social networks revealed that 28 companies are using *Facebook*, *Google+* -15, *LinkedIn* - 14 and only 5 enterprises are using *Twitter*.

The next chapter will discuss the enterprises, which are involved in social networks.

3.2. Characteristics of enterprises participating in social networks

Will continue in order to find out enterprises characteristics, which involved in social networking: enterprise activities, marketing, enterprise‘s profit changes, annual turnover, number of employees.

For the analyze will be used these variables, which reflect company‘s characteristics (activity marketing, employees, changes in sale, annual turnover, turnover) and variables, which describing enterprises‘ activities in social networks (*Facebook likes*, Facebook *people talking about this*, *Google+ observers*, *LinkedIn followers*, *Twitter followers*). In order to clarify enterprises‘ characteristics in each social networks, first of all selecting social networks using SPSS statistical program function “select cases”, then with a function “descriptive”, which allow describe variables, will be possible to see some companies characteristics, which participating in social networks.

Enterprises, which are most favorite in social network, *Facebook* by marketing, changes in sales, annual turnover, number of employees (*Facebook likes*).

Table 1. Enterprises participation in *Facebook* by activity (*Facebook likes*).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Motoring	3	10,7	10,7	10,7
	IT and communication	2	7,1	7,1	17,9
	Leisure and restaurants	2	7,1	7,1	25,0
	Food industry and agriculture	1	3,6	3,6	28,6
	Industry and Energy	5	17,9	17,9	46,4
	Sales	2	7,1	7,1	53,6
	Construction and real estate	6	21,4	21,4	75,0
	Transportation and logistics	7	25,0	25,0	100,0
	Total	28	100,0	100,0	

Table 2. Enterprises participation in *Facebook* by marketing strategy (*Facebook likes*).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B2C	10	35,7	35,7	35,7
	B2B	11	39,3	39,3	75,0
	B2C, B2B	7	25,0	25,0	100,0
	Total	28	100,0	100,0	

Table 3. Enterprises participation in *Facebook* by changes in sale (2009-2012) % (*Facebook likes*).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	500-1000	22	78,6	78,6	78,6
	1001-1500	4	14,3	14,3	92,9
	1501-2000	1	3,6	3,6	96,4
	2501-3000	1	3,6	3,6	100,0
	Total	28	100,0	100,0	

Table 4. Enterprises participation in *Facebook* by annual turnover 2013 (*Facebook likes*).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 000 001 - 2 000 000	3	10,7	10,7	10,7
	2 000 001 - 3 000 000	3	10,7	10,7	21,4
	3 000 001 - 5 000 000	4	14,3	14,3	35,7
	5 000 001 - 10 000 000	8	28,6	28,6	64,3
	10 000 001 - 20 000 000	6	21,4	21,4	85,7
	20 000 001 - 30 000 000	1	3,6	3,6	89,3
	50 000 001 - 100 000 000	3	10,7	10,7	100,0
	Total	28	100,0	100,0	

Table 5. Enterprises participation in *Facebook* by employees (*Facebook likes*).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	micro-enterprise	4	14,3	14,3	14,3
	small enterprise	9	32,1	32,1	46,4
	medium-sized enterprise	11	39,3	39,3	85,7
	large enterprise	4	14,3	14,3	100,0
	Total	28	100,0	100,0	

Enterprises, about which are talked in social network *Facebook*, by activity, marketing, changes sales, annual turnover, number of employees (*People talking about this*):

Table 6. Enterprises participation in *Facebook* by activity (*People talking about this*).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Motoring	1	6,3	6,3	6,3
	IT and communication	2	12,5	12,5	18,8
	Leisure and restaurants	1	6,3	6,3	25,0
	Industry and Energy	3	18,8	18,8	43,8
	Sales	2	12,5	12,5	56,3
	Construction and real estate	3	18,8	18,8	75,0
	Transportation and logistics	4	25,0	25,0	100,0
	Total	16	100,0	100,0	

Table 7. Enterprises participation in *Facebook* by marketing strategy (*People talking about this*).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B2C	7	43,8	43,8	43,8
	B2B	4	25,0	25,0	68,8
	B2C, B2B	5	31,3	31,3	100,0
	Total	16	100,0	100,0	

Table 8. Enterprises participation in *Facebook* by changes in sale (2009-2012) % (*People talking about this*).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	500-1000	10	62,5	62,5	62,5
	1001-1500	4	25,0	25,0	87,5
	1501-2000	1	6,3	6,3	93,8
	2501-3000	1	6,3	6,3	100,0
	Total	16	100,0	100,0	

Table 9. Enterprises participation in *Facebook* by annual turnover 2013 (*People talking about this*).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 000 001 - 2 000 000	2	12,5	12,5	12,5
	2 000 001 - 3 000 000	1	6,3	6,3	18,8
	3 000 001 - 5 000 000	1	6,3	6,3	25,0
	5 000 001 - 10 000 000	7	43,8	43,8	68,8
	10 000 001 - 20 000 000	3	18,8	18,8	87,5
	50 000 001 - 100 000 000	2	12,5	12,5	100,0
	Total	16	100,0	100,0	

Table 10. Enterprises participation in *Facebook* by Employees (*People talking about this*).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	micro-enterprise	2	12,5	12,5	12,5
	small enterprise	5	31,3	31,3	43,8
	medium-sized enterprise	7	43,8	43,8	87,5
	large enterprise	2	12,5	12,5	100,0
	Total	16	100,0	100,0	

These figures show that the most favorite in social network *Facebook* is a transport and logistics enterprises (25%) and construction and real estate enterprises (21.4%). Enterprises popularity distribution on *Facebook* by marketing strategy is sufficiently smooth, the most favorite is a B2B type (39.3%), at least B2C / B2B (25%) type enterprises.

Enterprises, about which are talked in social network *Facebook* the most situation is similar: the most attention gets transportation and logistics enterprises (25%), as well as real estate enterprises (18, 8%) also industry and energy enterprises (18, 8%). In terms of marketing strategy, the situation is somewhat different, in this case, the most popular B2C (43.8%), the least popular B2B (25.0%).

With regard to the change in sales, we see that both the most favorite and most talked about enterprises with sales in 2009-2012 increased by 500 - 1000%.

The annual turnover situation is also very similar: the average profitability dominated by enterprises whose annual turnover is from 5000001 to 10000000 and 10000001 to 20000000 EUR (2013 year).

39.3 and 43.8% of these enterprises has an average number of employees.

Enterprises that participate in social network *Google+* by activity, marketing, changes in sales, annual turnover, number of employees (*Google+* observes):

Table 11. Enterprises participation in *Google+* by activity.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Motoring	2	13,3	13,3	13,3
	IT and communication	1	6,7	6,7	20,0
	Leisure and restaurants	1	6,7	6,7	26,7
	Food industry and agriculture	2	13,3	13,3	40,0
	Industry and Energy	2	13,3	13,3	53,3
	Construction and real estate	3	20,0	20,0	73,3
	Transportation and logistics	4	26,7	26,7	100,0
	Total	15	100,0	100,0	

Table 12. Enterprises participation in *Google+* by marketing.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B2C	3	20,0	20,0	20,0
	B2B	9	60,0	60,0	80,0
	B2C, B2B	3	20,0	20,0	100,0
	Total	15	100,0	100,0	

Table 13. Enterprises participation in *Google+* by changes in sale (2009-2012) %.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	500-1000	11	73,3	73,3	73,3
	1001-1500	4	26,7	26,7	100,0
	Total	15	100,0	100,0	

Table 14. Enterprises participation in *Google+* by annual turnover 2013.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 000 001 - 2 000 000	2	13,3	13,3	13,3
	2 000 001 - 3 000 000	1	6,7	6,7	20,0
	3 000 001 - 5 000 000	2	13,3	13,3	33,3
	5 000 001 - 10 000 000	6	40,0	40,0	73,3
	10 000 001 - 20 000 000	3	20,0	20,0	93,3
	30 000 001 - 50 000 000	1	6,7	6,7	100,0
	Total	15	100,0	100,0	

Table 15. Enterprises participation in *Google+* by employees.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	micro-enterprise	3	20,0	20,0	20,0
	small enterprise	8	53,3	53,3	73,3
	medium-sized enterprise	4	26,7	26,7	100,0
	Total	15	100,0	100,0	

The situation is very similar to the *Facebook* social network, mainly consisting of enterprises which activities Transportation and Logistics (26.7%), Construction and real estate (20%).

It is also noticeable that the most prevailing type is B2B marketing enterprises (60%), while B2C and B2C/B2B type of enterprises distribution is the same, each type 20%.

Even 73.3% sales in enterprises grew from 500 to 1,000%.

As well similar as in *Facebook*, 40.00% of enterprises annual turnover is from 5,000,001 to 10,000,000 euros.

However, unlike *Facebook*, *Google* + dominated by smaller enterprises (small enterprises 53.3%).

Enterprises that participate in the social network *LinkedIn* by activity, marketing, changes in sales, annual turnover, number of employees (according to the number of followers on *LinkedIn):*

Table 16. Enterprises participation in *LinkedIn* by activity.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Motoring	1	7,1	7,1	7,1
	Finance and insurance	1	7,1	7,1	14,3
	IT and communication	3	21,4	21,4	35,7
	Leisure and restaurants	1	7,1	7,1	42,9
	Industry and Energy	2	14,3	14,3	57,1
	Construction and real estate	3	21,4	21,4	78,6
	Transportation and logistics	3	21,4	21,4	100,0
	Total	14	100,0	100,0	

Table 17. Enterprises participation in *LinkedIn* by marketing.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B2C	3	21,4	21,4	21,4
	B2B	8	57,1	57,1	78,6
	B2C, B2B	3	21,4	21,4	100,0
	Total	14	100,0	100,0	

Table 18. Enterprises participation in *Linkedin* by changes in sale (2009-2012) %.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	500-1000	9	64,3	64,3	64,3
	1001-1500	4	28,6	28,6	92,9
	2001-2500	1	7,1	7,1	100,0
	Total	14	100,0	100,0	

Table 19. Enterprises participation in *LinkedIn* by annual turnover 2013.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 000 001 - 2 000 000	2	14,3	15,4	15,4
	2 000 001 - 3 000 000	1	7,1	7,7	23,1
	3 000 001 - 5 000 000	1	7,1	7,7	30,8
	5 000 001 - 10 000 000	4	28,6	30,8	61,5
	10 000 001 - 20 000 000	3	21,4	23,1	84,6
	50 000 001 - 100 000 000	1	7,1	7,7	92,3
	Over 100 000 000	1	7,1	7,7	100,0
	Total	13	92,9	100,0	
Missing	0	1	7,1		
Total		14	100,0		

Table 20. Enterprises participation in *LinkedIn* by employees.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	small enterprise	10	71,4	71,4	71,4
	medium-sized enterprise	4	28,6	28,6	100,0
	Total	14	100,0	100,0	

The vast majority of enterprises using social network *LinkedIn* activity is Transportation and Logistics, Construction and real estate, IT and communication areas.

It is also noted that most dominate B2B marketing type enterprises (51%), and B2C and B2C/B2B type of enterprises are the same (each 21.4%).

Over 4 years, even 64.3% of enterprises sales grew from 500 to 1,000%.

The prevailing annual turnover from 5,000,001 to 10,000,000 euros.

However, unlike F*acebook*, *LinkedIn* dominated in small enterprise (71.4%).

Enterprises that participate in the social network *Twitter* by activity, marketing, changes in sales, annual turnover, number of employees (according to the number of followers on *Twitter*):

Table 21. Enterprises participation in *Twitter* by activity.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	IT and communication	1	20,0	20,0	20,0
	Leisure and restaurants	1	20,0	20,0	40,0
	Transportation and logistics	3	60,0	60,0	100,0
	Total	5	100,0	100,0	

Table 22. Enterprises participation in *Twitter* by marketing.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	B2C	2	40,0	40,0	40,0
	B2B	2	40,0	40,0	80,0
	B2C, B2B	1	20,0	20,0	100,0
	Total	5	100,0	100,0	

Table 23. Enterprises participation in *Twitter* by changes in sale (2009-2012) %.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	500-1000	5	100,0	100,0	100,0

Table 24. Enterprises participation in *Twitter* by annual turnover 2013.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3 000 001 - 5 000 000	2	40,0	40,0	40,0
	5 000 001 - 10 000 000	1	20,0	20,0	60,0
	10 000 001 - 20 000 000	1	20,0	20,0	80,0
	50 000 001 - 100 000 000	1	20,0	20,0	100,0
	Total	5	100,0	100,0	

Table 25. Enterprises participation in *Twitter* by employees.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	small enterprise	3	60,0	60,0	60,0
	medium-sized enterprise	1	20,0	20,0	80,0
	large enterprise	1	20,0	20,0	100,0
	Total	5	100,0	100,0	

The vast majority of enterprises using social network *Twitter*, activity is in the Transportation and Logistics areas (60%).

It is noted that most dominated marketing enterprises is B2B and B2C (each 40%) type.

Within four years, 100% enterprises sales grew from 500 to 1000%.

Unlike other social networks prevailing annual turnover is from 3,000,001 to 5,000,000 euros.

However, unlike F*acebook*, *Twitter* dominated by smaller enterprises (60%).

So an investigated the participation in social networks characteristics, we see that most of the enterprises engaged in transportation and logistics area. Although the majority of enterprises in the use of test B2C strategy. But investigating enterprises only participating in the social networks, we see that the majority of enterprises are using B2B strategy. The vast majority of enterprise the change of sales 500 - 1000%. The prevailing annual turnover from 5,000,001 to 10,000,000 euros. According to the number of employees majority enterprises - small enterprises, only enterprises using Facebook - medium-sized enterprise.

In the next section to determine the enterprises‘ distribution on social networks will be applied clustering method.

3.3. Activities of enterprises in social networks: clustering method

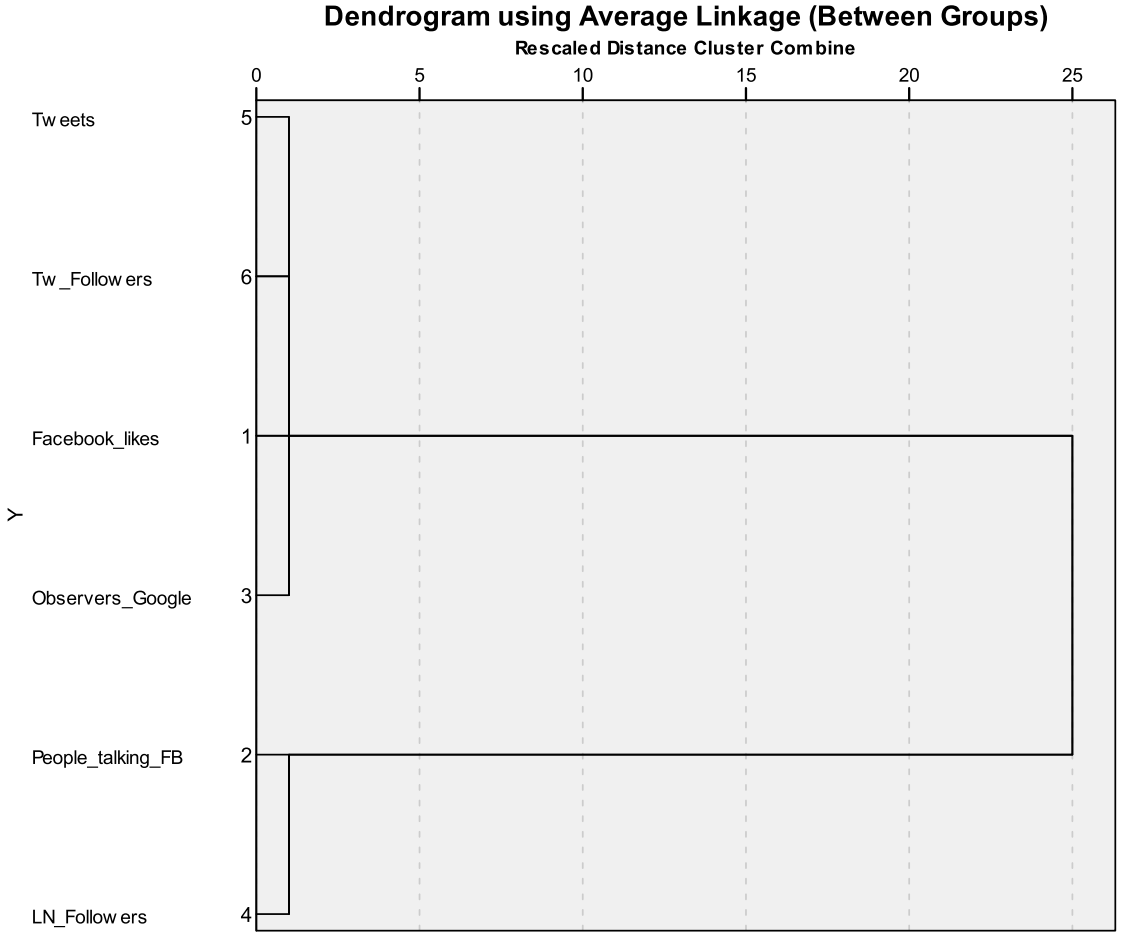
As already mentioned clustering - the analyzed objects distribution into different groups, that group‘s objects to resemble each other, and objects from different groups are dissimilar. To get the objective results, in these analysis clustering was done few times.

In order to determine the enterprises‘ distribution in social networks will be used for hierarchical data connection method, and this process diagram shows in graph called dendogram. This will contribute to determine the distribution of objects in cluster is optimal. One axis dendogram‘s postponed objects‘ numbers (in this case, enterprises activities in various social networks), another - distances. Was chosen most often used in cases of clustering and intuitively

acceptable measure of distance - EDC square and medium port (SPSS – „Between linkage group“) method. Clustering uses the following variables: *Facebook likes, Facebook people talking about this, Google+ observers, LinkedIn followers, Twitter tweets, Twitter followers.*

Table 26. Cluster Membership.

Case	2 Clusters
Facebook_likes	1
People talking about this	2
Google +	1
LinkedIn Followers	2
Twitter tweets	2
Twitter Followers	2



Picture 25. Dendogram between groups.

Dendrogram shows quite a clear division between the activities of the enterprise in various social networks: active participation in the social network *Facebook* and *Google+,* all the other social networks activity is low.

The table below contains the cluster membership, in which clusters after clustering got enterprises' activities in social networks. So to the first cluster falls *Facebook* likes and *Google+*, to the second - People talking about this in *Facebook*, LinkedIn followers, Twitter tweets, Twitter followers.

Thus, found out the number of clusters, continue using the k - average method (K- means method) will seek to find out if clustering results matches.

K - averages method is one of not hierarchical cluster analysis methods. Not hierarchical methods are usually applied when the predictable (optional) and the desired number of clusters and want clustering investigated objects. Clustering procedure consists of the following steps:

- Objects are divided into k initial cluster;
- Each object calculated in turn the distance to the cluster center (distance is usually calculated using the Euclidean metric or its square);
- Object is assigned to the nearest cluster;
- Again calculated cluster centers;
- Algorithm is repeated until there is no more redistribution (Čekanavičius V, 2002).

K – average method investigated sets data objects clustering into two clusters.

Table 27. Final Cluster Centers.

	Cluster	
	1	2
Facebook_likes	20880	436
People talking about this	6	43
Google +	14270	2485
LinkedIn Followers	5	579
Twitter tweets	656	31
Twitter Followers	134	40

Using the SPSS program was calculated clusters centers. As can be seen, *Facebook likes* and *Google + variables* centers quite sharply distinguished from the other so we can confirm the previous clustering results.

The cluster analysis has revealed that most closely resembling each other and most outstanding variables from the others are by *Google+* and *Facebook likes*. The remaining variables

in the analysis due to the low amount of data fall into the second cluster and further analysis can be difficult.

3.4. Correlation among variables

Interval variables for which the normality assumption is not satisfactory, and ordinal variables are calculated Spearman correlation coefficient. In this case the distribution is abnormal, with very few observations, that's why will be used this correlation when trying to verify the hypothesis.

When you are doing correlation analysis is always appreciate the correlation (r) strength and statistical significance. The correlation strength measured on a scale from 0 to 1 or from 0 to -1. If r = 0 - there is no dependency between variables, r = 1 or -1 - totally dependent variables. However, to make sure that the resulting correlation - not a coincidence, calculated p-value. P value indicates whether a statistically significant correlation**.** Correlation statistical significance evaluate SPSS obtained p-value in most cases compared to the value $\alpha = 0.05$ (significance level). The correlation is statistically significant if p-value calculated using SPSS less than 0.05. Significance level can be chosen bigger or smaller, depending on the purpose of the investigation (Čekanavičius V., Murauskas G., 2002, p. 124).

Hypothesis 1: Enterprises popularity on social networks depends on the enterprises activities area.

Table 28. Correlation with activity.

			People talking about this	Activity
Spearman's rho	Facebook_likes	Correlation Coefficient	,663**	-,155
		Sig. (2-tailed)	,005	,430
		N	16	28
	Google +	Correlation Coefficient	,200	,076
		Sig. (2-tailed)	,800	,787
		N	4	15
	People talking about this	Correlation Coefficient	1,000	-,181
		Sig. (2-tailed)	.	,501
		N	16	16
	Activity	Correlation Coefficient	-,181	1,000
		Sig. (2-tailed)	,501	.
		N	16	100

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Activity area enterprises and *Facebook likes*:

p> 0,05 (p= 0,430) Among the variables enterprises activities areas and *Facebook likes* not statistically significant relationship.

The correlation coefficient -0.155, relationship between variables is very weak.

Activity area of enterprises and *Facebook people talking about this*:

p> 0,05 (p= 0,501) Among the variables are not statistically significant relationship.

The correlation coefficient -0.181, relationship between variables is very weak.

Activity area of enterprises and *Google*+:

p> 0,05 (p= 0,787) Among the enterprises variables is not statistically significant relationship.

The correlation coefficient 0.076, relationship between the variables is very weak.

Conclusion: Ho hypothesis is accepted, there is no statistically significant relationship.

It is a moderate strength correlation, which is statistically significant between *Facebook likes* and *People talking about this*, because p = 0.005 (p <0.05), and r = 0.663 (shows a strong average relationship between the variables).

Hypothesis 2. Marketing strategy is correlated with the use of social networks.

Table 29. Correlation with marketing strategies.

			People talking about this	Marketing
Spearman's rho	Facebook_likes	Correlation Coefficient	,663**	-,090
		Sig. (2-tailed)	,005	,648
		N	16	28
	Google +	Correlation Coefficient	,200	-,146
		Sig. (2-tailed)	,800	,603
		N	4	15
	People talking about this	Correlation Coefficient	1,000	-,217
		Sig. (2-tailed)	.	,421
		N	16	16
	Marketing	Correlation Coefficient	-,217	1,000
		Sig. (2-tailed)	,421	.
		N	16	100

**. Correlation is significant at the 0.01 level (2-tailed).

Marketing strategies and *Facebook likes*:

P> 0,05 (p= 0,648) Among the enterprises variables areas and *Facebook likes* is not statistically significant relationship.

The correlation coefficient -0.090, relationship between the variables is very weak.

Marketing strategies and *Facebook people talking about this*:

p> 0,05 (p= 0,421) Among the variables is not statistically significant relationship.

The correlation coefficient -0.090, relationship between the variables is weak.

Marketing strategies and *Google* +:

p> 0,05 (p= 0,603) Among the enterprises variables is not statistically significant relationship.

Conclusion: Ho hypothesis is accepted in terms of all of the variables, there is no statistically significant relationship.

Hypothesis 3. There is a connection between changes in enterprises sales and participation in social networks.

Table 30. Correlation with changes in sale.

			People talking about this	Changes_in_ sale
Spearman's rho	Facebook_likes	Correlation Coefficient	,663**	,067
		Sig. (2-tailed)	,005	,737
		N	16	28
	Google +	Correlation Coefficient	,200	-,314
		Sig. (2-tailed)	,800	,254
		N	4	15
	People talking about this	Correlation Coefficient	1,000	-,083
		Sig. (2-tailed)	.	,761
		N	16	16
	Changes_in_sale	Correlation Coefficient	-,083	1,000
		Sig. (2-tailed)	,761	.
		N	16	100

**. Correlation is significant at the 0.01 level (2-tailed).

The investigation of this hypothesis as well as in the earlier once showed that there is no a statistically significant relationship between the variables, because the level of significance p is estimated to be 0.737, 0.254, 0.761 (p> 0.05), and the correlation coefficients are: 0.067, -0.314, -0.083, which also showed a weak (-0.314) and very weak (0.067, -0.083) relationships among variables.

Hypothesis 4. Annual turnover is correlated with the use of social networks.

Table 31. Correlation with annual turnover.

			People talking about this	Turnover
Spearman‘s rho	Facebook_likes	Correlation Coefficient	,663**	,019
		Sig. (2-tailed)	,005	,938
		N	16	20
	Google +	Correlation Coefficient	,200	,169
		Sig. (2-tailed)	,800	,620
		N	4	11
	People talking about this	Correlation Coefficient	1,000	,446
		Sig. (2-tailed)	.	,127
		N	16	13
	Turnover	Correlation Coefficient	,446	1,000
		Sig. (2-tailed)	,127	.
		N	13	72

**. Correlation is significant at the 0.01 level (2-tailed).

Investigating the relationships between variables and annual turnover (*Facebook likes*, *people talking about this* and *Google+ observes*), it also appeared that there was no statistically significant correlation because p> 0.05 (0.938, 0.620, 0.127), and the connection between the variables is also very weak.

The hypothesis that there is a connection between the variables is rejected.

Hypothesis 5. There is a connection between the number of employees and participation in social networks.

Table 32. Correlation with employees.

			People talking about this	Employees
Spearman's rho	Facebook_likes	Correlation Coefficient	,663**	,027
		Sig. (2-tailed)	,005	,891
		N	16	28
	Google +	Correlation Coefficient	,200	,438
		Sig. (2-tailed)	,800	,102
		N	4	15
	People talking about this	Correlation Coefficient	1,000	-,279
		Sig. (2-tailed)	.	,296
		N	16	16
	Employees	Correlation Coefficient	-,279	1,000
		Sig. (2-tailed)	,296	.
		N	16	100

**. Correlation is significant at the 0.01 level (2-tailed).

The investigation of the correlation between employees variables and variable of *Facebook likes*, *people talking about this* and *Google+ observes*, it became clear that there is no statistically significant relationship between the variables, because p> 0.05 (0.891, 0.102, 0.296), and the connection between the variables is weak or very weak.

So the hypothesis about the relationship between the number of employees and participation in social networks is rejected.

So all the hypotheses were not confirmed. It was found only moderate strength activity correlation, which is statistically significant between *Facebook likes* and *people talking about this*. It can be argued that social networks do not affect the growth of enterprises.

CONCLUSIONS

1. Due to social networks properties, such as: quality, confidence, popularity and timeliness, they could be used in business world.
2. There is an opinion that social networks can help to enterprises, but they must be used responsibly. It is not enough to create profiles on social networks, because social networks themselves are not magic ways forward a successful business. This is only tool that can be performed only by the person who is excellent in communication and knows a particular product or service in-depth.
3. Assessment methodology for the single, effective social networks it is not created, which could approved, that social networks are reliable investment for the businessmen, however authors in their works using methods such as: correlation, analysis of graphics data, opinion mining, network mining, swarm intelligence, early warning.
4. Social networks started to exist quite recently in Lithuania. Lithuanians are still learning how to use these social networks efficiently.
5. In order to investigate the influence of social networks in Lithuania were investigated 100 growing enterprises (Gazelles). They were dealt with according to the five elements: activities, strategies, change in sales, annual turnover and number of employees. Thus, the characteristics of these enterprises:
    - Most enterprises are working in Transportation and Logistics, Industry and Energy, Construction and real estate activities;
    - Most of the enterprises strategy - Business-to-business;
    - All sales of enterprises grew during the years 2009-2012;
    - The vast majority of enterprises in 2013 had a turnover from 5000001 to 10000000 euros;
    - The majority of enterprises are small enterprises;
    - These enterprises are not reluctant to use social networks. The verification of the popular social networks revealed that 28 companies are using Facebook, Google+ -15, LinkedIn - 14 and only 5 enterprises are using Twitter.
6. Quantitative statistical study hypotheses were:
    - Enterprises popularity of social networks dependent on enterprises activities area;
    - Marketing strategy is correlated with the use of social networks;
    - There is a connection between enterprises sales changes and participation in social networks;
    - Annual turnover is correlated with the use of enterprises social networking;

- There is a connection between employees number and enterprises participation in social networks.

All the hypotheses were not confirmed. It was found only moderate strength activity correlation, which is statistically significant between Facebook likes and People talking about this. Survey results suggest that social networks not influence the growth of enterprises.

7. In the literature can be found a lot of positive information about the benefits of social networking for enterprises (of course correctly using social networks), but the results of the research showed that the use of social networks is not necessary for the successful growth of enterprises.

8. Of course this does not mean that from today the enterprises must stop to participate in social networks. If enterprises choose to participate, they have to do responsibly, invest in professionals who knowledge - communication. Because just time and experience could be the best reflection for the social networks influence to enterprises (if it does).

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SUMMARY

Salytė S. Influence of social network for enterprise/ Master's thesis. Supervisor Doc. Dr. M. Kiškis. – Vilnius: Mykolas Romeris university, the Faculty of Social Technology, 2015 – 66 p.

This master's thesis analyzes the influence of social networks for the enterprises. Was analyzed the fast-growing business involvement of social networks in Lithuania. This assay was done by using analysis of statistical quantitative and scientific literature.

The object of the work is to analyze and select social networks, assess their influence to the rapidly developing enterprises and it's active participation in social networks in Lithuania. In this master's thesis was raised three work tasks:

- Review and evaluate the influence of social networks to enterprises;
- Analyze the major social networks used in Lithuania;
- Perform social networks statistical quantitative research, set relationships between the variables and assess the influence of social networks to enterprises.

This work research object is evaluation of social networks influence to the fast growing enterprises in Lithuania.

Master's thesis consists of the three parts:

- In the first chapter was analyzed how social networks are used in business, enterprises participation in social networks ways and submitter social networks analysis methods.
- In the second chapter social networks were examined through the business prism.
- In the third chapter submitted and analyzed data of the fast-growing enterprises in Lithuania. Searched influence of the social networks for the enterprises. At the end of master's thesis submitted conclusions of the work.

SANTRAUKA

Salytė S. Socialinių tinklų įtaka įmonėms/ Magistro baigiamasis darbas. Vadovas Doc. Dr. M. Kiškis. – Vilnius: Mykolo Romerio universitetas, Socialinių technologijų fakultetas, 2015 – 66 p.

Magistro baigiamajame darbe yra analizuojama socialinių tinklų įtaka įmonėms. Buvo atliktas socialinių tinklų įtakos tyrimas sparčiai besivystansdčioms įmonėms Lietuvoje. Tyrimas atliktas naudojant statistinę kiekybinę analizę. Darbe taip pat taikyta mokslinės literatūros analizė.

Tyrimo tikslas – įvertinti socialinių tinklų įtaką įmonėms, remiantis sparčiai besivystančių Lietuvos įmonių duomenimis ir jų dalyvavimu socialiniuose tinkluose aktyvumu. Darbe buvo iškelti trys tyrimo uždaviniai:

- Išnagrinėti dalyvaujančių socialiniuose tinkluose įmonių charakteristikas pagal veiklą, marketingo strategiją, pardavimų pokytį, metinę apyvartą bei darbuotojų skaičių;
- Išsikelti hipotezes ir ieškoti ryšių bei įtakų tarp įmonių dalyvaujančių socialiniuose tinkluose ir jų veiklos;
- Rezultatų analizė.

- Tyrimo objektas – socialinių tinklų įtakos sparčiai augančioms įmonėms Lietuvoję vertinimas. Išanalizavus socialinių tinklų įtaką sparčiai besivystančioms įmonėms Lietuvoje įvertinti įtakos stiprumą, nustatyti, ar įmonėms būtina dalyvauti socialiniuose tinkluose norint paskatinti pardavimus.
- Magistro baigiamąjį darbą sudaro trys dalys:
  - Pirmame skyriuje yra analizuojamas socialinių tinkle panaudojimas versle, įmonių dalyvavimo socialiniuose tinkluose būdai bei pateikiami socialinių tinkle analizės metodai.
  - Antrame skyriuje yra nagrinėjami socialiniai tinklai per verslo prizmę.
  - Trečiame skyriuje yra pateikiami ir analizuojami sparčiai besivystančių įmonių Lietuvoje duomenys. Ieškomos socialinių tinkle įtakos tyriamoms įmonėms. Darbo pabaigoje pateikiamos tyrimą apibendrinančios išvados.

APPENDIX 1

No.	Companies	Activity	Management strategy	Employees	Changes in sales (2009-2012) %	Annual turnover 2013, Eur.
1	Ecoil, UAB	Industry and Energy	B2C/B2B	10	2762,69	50 000 001 - 100 000 000
2	Vilrida, UAB	Construction and real estate	B2B	12	2398,35	10 000 001 - 20 000 000
3	Mobili Baltija, UAB	IT and communication	B2B	18	2167,91	50 000 001 - 100 000 000
4	Džiaugsmelis, Žūk	Food industry and agriculture	B2B	54	2014,56	10 000 001 - 20 000 000
5	Kurt Beier Transport, UAB	Transportation and logistics	B2B	41	1866,29	10 000 001 - 20 000 000
6	Leadex, UAB	Construction and real estate	B2B	458	1720,01	5 000 001 - 10 000 000
7	Aviakuras, UAB	Industry and Energy	B2B	26	1425,12	10 000 001 - 20 000 000
8	4BIK, UAB	Industry and Energy	B2B	20	1383,54	3 000 001 - 5 000 000
9	Tvisteris, UAB	Motoring	B2B	0	1360,55	0
10	TMHB, UAB	Industry and Energy	B2B	14	1288,91	30 000 001 - 50 000 000
11	Grūdoteka, A. Kaveckio įmonė	Food industry and agriculture	B2B	10	1284,04	50 000 001 - 100 000 000
12	Baltforgė, UAB	Industry and Energy	B2B	4	1281,5	3 000 001 - 5 000 000
13	Biotecha, UAB	Motoring	B2B	14	1255,78	5 000 001 - 10 000 000
14	Tututis, UAB	Sales	B2C	160	1240,67	10 000 001 - 20 000 000
15	Refra, UAB	Sales	B2C/B2B	174	1229,33	5 000 001 - 10 000 000
16	Staltika, UAB	Industry and Energy	B2C	24	1183,54	1 000 001 - 2 000 000
17	NURMINEM MARITIME, UAB	Transportation and logistics	B2B	12	1128,9	5 000 001 - 10 000 000
18	Ardovitė, UAB	Motoring	B2C/B2B	9	1111,76	3 000 001 - 5 000 000
19	Colores novi Baltici, UAB	Industry and Energy	B2B	5	1107,41	2 000 001 - 3 000 000
20	Easting Express, UAB	Transportation and logistics	B2B	30	1102,53	5 000 001 - 10 000 000
21	INTER RAO, Lietuva, AB	Industry and Energy	B2C/B2B	26	1088,59	Over 100 000 000
22	Storent, UAB	Construction and real estate	B2C/B2B	50	1068,12	5 000 001 - 10 000 000
23	Vimeta, UAB	Motoring	B2B	4	1015,96	5 000 001 - 10 000 000
24	SD faktorialas, UAB	Transportation and logistics	B2B	2	1013,58	5 000 001 - 10 000 000
25	Dorvina, UAB	Transportation and logistics	B2B	6	1011,4	2 000 001 - 3 000 000
26	Auberta, UAB	Motoring	B2C/B2B	3	971,81	3 000 001 - 5 000 000
27	Ruptela, UAB	IT and communication	B2B	120	905,6	5 000 001 - 10 000 000
28	Meyer & John, UAB	Construction and real estate	B2B	44	904,83	5 000 001 - 10 000 000
29	Dirvintos transportas, UAB	Transportation and logistics	B2B	46	896,98	2 000 001 - 3 000 000
30	Kaunesta, UAB	Construction and real estate	B2C/B2B	73	882,7	2 000 001 - 3 000 000

31	Baltic Transit Rail, UAB	Transportation and logistics	B2B	10	866,94	1 000 001 - 2 000 000
32	Kooperatinė bendrovė Žemaitijos pašarai	Food industry and agriculture	B2B	3	858,14	3 000 001 - 5 000 000
33	Televizijos technika, UAB	Sales	B2B	17	853,23	500 001 - 1 000 000
34	Embritas, UAB	Industry and Energy	B2B	76	839,5	2 000 001 - 3 000 000
35	Metalo laužas, UAB	Industry and Energy	B2C/B2B	80	838,63	5 000 001 - 10 000 000
36	Kelin, UAB	Transportation and logistics	B2B	8	811,15	5 000 001 - 10 000 000
37	Voltas, UAB	Construction and real estate	B2B	81	772,67	5 000 001 - 10 000 000
38	Novanet, UAB	IT and communication	B2C	20	765,36	3 000 001 - 5 000 000
39	LOITERIO BIOIMUNOLOGIJOS	Sales	B2B	9	728,49	5000 001 - 10 000 000
40	JUMBO CARGO, UAB	Transportation and logistics	B2B	21	720,54	2 000 001 - 3 000 000
41	Baltic ground services, UAB	Transportation and logistics	B2C/B2B	284	704,96	50 000 001 - 100 000 000
42	Geležinkelio tiesimo centras, UAB	Transportation and logistics	B2B	527	699,28	50 000 001 - 100 000 000
43	Arutransus, UAB	Transportation and logistics	B2B	11	696,97	3 000 001 - 5 000 000
44	Irdaiva, UAB	Construction and real estate	B2B	183	680,3	30 000 001 - 50 000 000
45	WM H. MULLER & CO, UAB	Transportation and logistics	B2B	13	668,06	5 000 001 - 10 000 000
46	Statga, UAB	Construction and real estate	B2B	334	663,25	20 000 001 - 30 000 000
47	Orion securities, FMĮ	Finance and insurance	B2C/B2B	19	657,19	0
48	Martas ir partneriai, UAB	Industry and Energy	B2B	26	651,74	10 000 001 - 20 000 000
49	Baltic adventure, UAB	Leisure and restaurants	B2C	15	650,81	3 000 001 - 5 000 000
50	Avion Express, UAB	Transportation and logistics	B2C	63	639,5	5 000 001 - 10 000 000
51	Beltyre, UAB	Motoring	B2C/B2B	11	636,89	20 000 001 - 30 000 000
52	KĘSTUČIO VOLBEKO įmonė KASLITA	Transportation and logistics	B2C/B2B	39	633,54	0
53	Esmobaltas, UAB	Industry and Energy	B2C/B2B	9	629,69	10 000 001 - 20 000 000
54	Proton Engineering, UAB	Sales	B2B	36	629,19	2 000 001 - 3 000 000
55	Katalizator.Lt, UAB	Motoring	B2B	9	628,55	20 000 001 - 30 000 000
56	Saudingos autotransportas, UAB	Transportation and logistics	B2B	192	625,92	10 000 001 - 20 000 000
57	Realco statyba, UAB	Construction and real estate	B2B	9	622,22	10 000 001 - 20 000 000
58	Lindab, UAB	Construction and real estate	B2C/B2B	8	621,73	2 000 001 - 3 000 000
59	AXIS Transport, UAB	Transportation and logistics	B2B	65	620,97	10 000 001 - 20 000 000
60	MASSIVE WOOD CONSTRUCTION,	Industry and Energy	B2C	88	620,81	5 000 001 - 10 000 000
61	Estravel Vilnius, UAB (American Express TRS)	Leisure and restaurants	B2C	29	617,22	10 000 001 - 20 000 000
62	EKOENERGIJA, UAB	Construction and real estate	B2C/B2B	11	615,33	2 000 001 - 3 000 000
63	Argensta, UAB	Construction and real estate	B2C/B2B	45	614,31	3 000 001 - 5 000 000
64	LIT-INVEST	Leisure and restaurants	B2C/B2B	46	613,56	30 000 001 - 50 000 000
65	Triados, UAB	Sales	B2B	3	611,27	3 000 001 - 5 000 000

66	SIV statyba, UAB	Construction and real estate	B2B	69	610,24	5 000 001 - 10 000 000
67	GVERDITA, UAB	Industry and Energy	B2C/B2B	31	609,4	5 000 001 - 10 000 000
68	Arm gate, UAB	Industry and Energy	B2B	8	606,73	2 000 001 - 3 000 000
69	Phoenix Contact, UAB	Industry and Energy	B2B	10	601,43	5 000 001 - 10 000 000
70	Baltwood, UAB	Industry and Energy	B2B	166	597,96	20 000 001 - 30 000 000
71	ENG, UAB	Construction and real estate	B2B	10	592,98	2 000 001 - 3 000 000
72	LITMA, UAB	Transportation and logistics	B2B	8	592,8	3 000 001 - 5 000 000
73	EMAX, UAB	Motoring	B2C	2	589,11	1 000 001 - 2 000 000
74	TR Logistics, UAB	Transportation and logistics	B2B	15	586,22	5 000 001 - 10 000 000
75	Willenbrock Baltic, UAB	Motoring	B2B	61	586,08	10 000 001 - 20 000 000
76	Baltic Freight services, UAB	Transportation and logistics	B2B	29	580,48	10 000 001 - 20 000 000
77	Greencarrier Liner Agency LT, UAB	Transportation and logistics	B2B	14	572,25	10 000 001 - 20 000 000
78	Žvėrininkystės įranga, UAB	Industry and Energy	B2C/B2B	4	561,04	3 000 001 - 5 000 000
79	Gaia Transport, UAB	Transportation and logistics	B2B	21	560,44	5 000 001 - 10 000 000
80	Miško draugas, KB	Food industry and agriculture	B2C	36	560,03	5 000 001 - 10 000 000
81	Viasana, UAB	Sales	B2B	6	558,84	3 000 001 - 5 000 000
82	Gitana, UAB	Construction and real estate	B2B	42	558,61	2 000 001 - 3 000 000
83	Delamode Baltics, UAB	Transportation and logistics	B2B	57	554,71	5 000 001 - 10 000 000
84	Ekochema, UAB	Industry and Energy	B2B	40	552,23	30 000 001 - 50 000 000
85	Olerta, UAB	Transportation and logistics	B2B	58	544,29	3 000 001 - 5 000 000
86	Petva, UAB	Transportation and logistics	B2B	162	543,78	10 000 001 - 20 000 000
87	Energenas, UAB	Industry and Energy	B2B	16	535,97	1 000 001 - 2 000 000
88	Jondara, UAB	Food industry and agriculture	B2B	14	535,87	1 000 001 - 2 000 000
89	Daistatus, UAB	Construction and real estate	B2B	56	534,98	2 000 001 - 3 000 000
90	Grandluka, UAB	Construction and real estate	B2B	4	534,42	1 000 001 - 2 000 000
91	AVA statyba, UAB	Construction and real estate	B2C/B2B	136	531,24	3 000 001 - 5 000 000
92	NRG Site, UAB	Industry and Energy	B2B	33	530,45	3 000 001 - 5 000 000
93	VKTC, UAB	IT and communication	B2B	17	525,7	3 000 001 - 5 000 000
94	Virbarta, UAB	Construction and real estate	B2C/B2B	34	524,34	1 000 001 - 2 000 000
95	Vilsta, UAB	Construction and real estate	B2B	32	520,17	5 000 001 - 10 000 000
96	Schmitz Cargobull Baltic, UAB	Motoring	B2C/B2B	309	519,8	Over 100 000 000
97	TETAS, UAB	Industry and Energy	B2B	432	519,26	20 000 001 - 30 000 000
98	Vitmina, UAB	Transportation and logistics	B2B	61	515,96	3 000 001 - 5 000 000
99	MONRAT, UAB	Motoring	B2C	3	515,05	2 000 001 - 3 000 000
100	DELTA TRANSPORTAS, UAB	Transportation and logistics	B2B	22	511,43	1 000 001 - 2 000 000

APPENDIX 2

No.	Companies	Facebook Likes	Facebook People talking about this	Google + observes	LinkedIn followers	Twitter tweets	Twitter followers
1	Ecoil, UAB	137	1	0	0	0	0
2	Vilrida, UAB	0	0	0	0	0	0
3	Mobili Baltija, UAB	0	0	0	33	0	0
4	Džiaugsmelis, Žūk	0	0	0	0	0	0
5	Kurt Beier Transport, UAB	0	0	0	0	0	0
6	Leadex, UAB	2113	163	0	0	0	0
7	Aviakuras, UAB	0	0	0	0	0	0
8	4BIK, UAB	0	0	0	0	0	0
9	Tvisteris, UAB	0	0	0	0	0	0
10	TMHB, UAB	0	0	0	0	0	0
11	Grūdoteka, A. Kaveckio įmonė	0	0	0	0	0	0
12	Baltforgė, UAB	0	0	0	0	0	0
13	Biotecha, UAB	0	0	0	10	0	0
14	Tututis, UAB	12068	82	0	0	0	0
15	Refra, UAB	41	2	0	0	0	0
16	Staltika, UAB	34	2	7	5	0	0
17	NURMINEM MARITIME, UAB	0	0	380	0	0	0
18	Ardovitė, UAB	0	0	1036	0	0	0
19	Colores novi Baltici, UAB	0	0	0	0	0	0
20	Easting Express, UAB	0	0	0	0	0	0
21	INTER RAO, Lietuva, AB	0	0	0	45	0	0
22	Storent, UAB	76	1	0	96	0	0
23	Vimeta, UAB	0	0	3341	0	0	0
24	SD faktorialas, UAB	0	0	0	0	0	0
25	Dorvina, UAB	0	0	0	0	0	0
26	Auberta, UAB	0	0	0	0	0	0
27	Ruptela, UAB	417	6	0	356	0	0
28	Meyer & John, UAB	0	0	0	0	0	0
29	Dirvintos transportas, UAB	0	0	0	0	0	0
30	Kaunesta, UAB	0	0	0	0	0	0
31	Baltic Transit Rail, UAB	0	0	0	0	0	0
32	Kooperatinė bendrovė Žemaitijos pašarai	0	0	0	0	0	0

33	Televizijos technika, UAB	0	0	0	0	0	0
34	Embritas, UAB	0	0	0	0	0	0
35	Metalo laužas, UAB	0	0	0	0	0	0
36	Kelin, UAB	0	0	0	0	0	0
37	Voltas, UAB	0	0	11016	0	0	0
38	Novanet, UAB	20880	6	14270	5	656	134
39	LOITERIO BIOIMUNOLOGIJOS	0	0	0	0	0	0
40	JUMBO CARGO, UAB	0	0	0	0	0	0
41	Baltic ground services, UAB	1344	2	0	0	126	935
42	Geležinkelio tiesimo centras, UAB	31	0	0	0	0	0
43	Arutransus, UAB	27	0	0	0	0	0
44	Irdaiva, UAB	0	0	0	0	0	0
45	WM H. MULLER & CO, UAB	0	0	0	0	0	0
46	Statga, UAB	62	0	0	0	0	0
47	Orion securities, FMĮ	0	0	0	314	0	0
48	Martas ir partneriai, UAB	0	0	0	0	0	0
49	Baltic adventure, UAB	443	0	0	0	368	4
50	Avion Express, UAB	47	2	0	0	0	0
51	Beltyre, UAB	0	0	0	0	0	0
52	KĘSTUČIO VOLBEKO įmonė KASLITA	0	0	0	0	0	0
53	Esmobaltas, UAB	145	0	1	0	0	0
54	Proton Engineering, UAB	0	0	0	0	0	0
55	Katalizator.Lt, UAB	0	0	0	0	0	0
56	Saudingos autotransportas, UAB	0	0	0	0	0	0
57	Realco statyba, UAB	0	0	0	0	0	0
58	Lindab, UAB	728	112	0	0	0	0
59	AXIS Transport, UAB	64	0	20242	30	0	0
60	MASSIVE WOOD CONSTRUCTION, UAB	1280	11	0	0	0	0
61	Estravel Vilnius, UAB (American Express TRS)	11444	59	0	44	0	0
62	EKOENERGIJA, UAB	0	0	0	0	0	0
63	Argensta, UAB	0	0	0	0	0	0
64	LIT-INVEST	0	0	738	0	0	0
65	Triados, UAB	0	0	0	0	0	0
66	SIV statyba, UAB	0	0	0	7	0	0
67	GVERDITA, UAB	0	0	0	0	0	0

68	Arm gate, UAB	0	0	0	0	0	0
69	Phoenix Contact, UAB	0	0	0	0	0	0
70	Baltwood, UAB	0	0	0	0	0	0
71	ENG, UAB	0	0	0	2	0	0
72	LITMA, UAB	0	0	0	0	0	0
73	EMAX, UAB	86232	3608	0	0	0	0
74	TR Logistics, UAB	0	0	0	0	0	0
75	Willenbrock Baltic, UAB	73	0	0	0	0	0
76	Baltic Freight services, UAB	0	0	0	0	0	0
77	Greencarrier Liner Agency LT, UAB	436	43	2485	579	31	40
78	Žvėrininkystės įranga, UAB	0	0	0	0	0	0
79	Gaia Transport, UAB	0	0	0	0	0	0
80	Miško draugas, KB	25	0	457	0	0	0
81	Viasana, UAB	0	0	0	0	0	0
82	Gitana, UAB	0	0	0	0	0	0
83	Delamode Baltics, UAB	233	18	3318	0	100	296
84	Ekochema, UAB	0	0	0	0	0	0
85	Olerta, UAB	0	0	0	0	0	0
86	Petva, UAB	0	0	0	0	0	0
87	Energenas, UAB	30	0	0	0	0	0
88	Jondara, UAB	0	0	1419	0	0	0
89	Daistatus, UAB	32	0	6611	0	0	0
90	Grandluka, UAB	0	0	0	0	0	0
91	AVA statyba, UAB	202	0	0	0	0	0
92	NRG Site, UAB	0	0	0	0	0	0
93	VKTC, UAB	0	0	0	0	0	0
94	Virbarta, UAB	0	0	0	0	0	0
95	Vilsta, UAB	0	0	595	0	0	0
96	Schmitz Cargobull Baltic, UAB	0	0	0	0	0	0
97	TETAS, UAB	0	0	0	0	0	0
98	Vitmina, UAB	0	0	0	0	0	0
99	MONRAT, UAB	7	0	0	0	0	0
100	DELTA TRANSPORTAS, UAB	0	0	0	19	0	0