Source http://tweakyourbiz.com/management/2015/02/25/importance-networking-online-offline/

18-Aug-17

University of Twente

MSc in Business Administration

Master's Thesis

Companies' needs in networking and online business networking platforms

Alina Stankevich s1865633

Supervisors Dr.ir. S.J.A. Löwik
Drs P. Bliek

Master's Thesis

Companies' needs in networking and online business networking platforms

Abstract

Since we are living in a fast moving world in the era of digitalization, partnership and collaboration are seen as mandatory for businesses in order to be innovative and flourish. Generation X is followed by generation Y and Z which cannot live without the Internet, electronic devices, and social networks. This influences nowadays the way they network professionally since possibilities of online networking and its benefits increased dramatically. Therefore, the goal of this study is to investigate how online business networking platforms (OBNPs) can fulfill the needs of companies (SMEs and startups) in the process of finding new business partners (other companies) for co-innovation and collaboration. For answering the research question, a literature review and an empirical study were conducted. For the empirical research, a qualitative method (particularly, semi-structured interviews) was chosen. The interviews were conducted with two target groups: companies-users of OBNPs and platform-providers (OBNPs) to have two perspectives on the companies' needs in networking and how it is possible to fulfill them by online means. As the result, a list of needs in networking and an examined research model with factors/reasons which influence the choice of use between online and offline networking are presented. In addition, it is discussed how OBNPs can fulfill the needs of companies-users. As a theoretical contribution, a new cluster of factors was added to the research model as the result of the study. As the practical contribution, recommendations for companies regarding the more beneficial use of online networking and OBNPs were suggested along with recommendations for OBNPs on how to improve their work.

Table of Contents

"*In the XXI century, people live on online networking*."
SpellAfrica Initiative

I. Introduction

Companies as social entities don't exist and operate in isolation. They need at least suppliers and customers to create a product/service and to make a profit out of it in order to survive and be successful. Companies' goals in achieving success can be various – to increase a customer base for strengthening sales, to have an access to new markets, to be innovative, etc. To reach these goals and thrive, it is better to have reliable partners around with which companies can develop their businesses by conducting R&D, sharing projects' costs and risks, creating new ideas or technologies, and sharing knowledge among other goals. In the report on strategic value of business alliances and compatible partner matching conducted by The Business Performance Innovation Network, The Chief Marketing Officer Council, and Powerlinx Inc., it was stated that 85% of participated companies said that business partnerships are vital to growth of their business (A Report on the Strategic Value of Business Alliances and Compatible Partner Matching, 2014).

Nowadays, in the fast-moving and competitive world, where the product lifecycle is shortened and new companies appear every minute in the world (50 million new firms appear every year, it is around 370.000 firms per day) (Mason, 2017), we hear more and more examples of business partnerships, sometimes even competitors becoming partners for certain projects. It is reasonable because partnership gives companies a competitive advantage and an opportunity to access a broader range of ideas, resources, and expertise. Some companies prefer to use partnerships to strengthen weak sides of their businesses. Moreover, thanks to globalization, companies can extend their boundaries and make business globally. For that, it is more effective if a company collaborates with international partners. The report stated that 44% of interviewed companies saying that they seek a partnership for new ideas, insights, and innovation. "*Partnering is a logical response to the globalization of markets. It makes good business sense to connect people, departments, companies, customers and suppliers.*" Growth Resources, Inc. (A Report on the Strategic Value of Business Alliances and Compatible Partner Matching, 2014, p. 3).

In addition, the environment of today society's life and work should be presented to have an understanding of the situation. Since 1990 a new way of technological development has started – Information and Communication Technology (ICT) (Edler, Meyer-Krahmer, & Reger, 2002). One of the top-20 Megatrends is Digital Culture. The number of smartphones, Internet connections, and websites continues to increase rapidly worldwide. It is impossible to think of everyday life and working environment without the use of digital media, particularly for generations that have grown up with the Internet – Generation Y and Z. Currently digital media is gaining ground. Moreover, the Internet is acquiring intelligent features as it moves from Web 2.0 to become Web 3.0 (Z_punkt, 2017).

Present-day young entrepreneurs and professionals are from the Millennials generation (Generation Y) and followed by Generation Z, whose main characteristic is the digital technology incorporated into everyday life, due to being born in a digital world. For people from these generations, it is natural to be online all the time for private and working reasons. They admit that they are addicted to the Internet and smart technologies/devices and that they cannot live without online social networks (Beall, 2016). Today exist 29% of the world's population active user accounts on social media and content platforms. The average social media user spends around 2.5 hours per day surfing social networks and blogs.

1.1. Insights from the observation

Taking the above-presented information into account, it sounds obvious that companies, which consist of humans, while trying to find new partnerships are going online and using networking platforms, developed especially with the purpose of connecting organizations because it is easier, faster, and more efficient. The traditional way of networking (e.g., offline conferences, meetup events) has been seen as time-consuming, cumbersome, and costly. It doesn't work as fruitfully anymore since the new trends and factors appeared, such as the bigger amount of international cooperations. As a result, many businesses can give up before they even find a potential match. Nevertheless, while making research on examples of this kind of online networking platforms that focus on connecting companies to each other all over the world, it turned out that there are not many of them and even less of these platforms are still active, some of them are "dead".

The preliminary research shows that many of the networking websites/apps focus on finding co-founders, like Founder2be.com and Founderdating.com, or connecting professionals that are already known to each other, like LinkedIn and Slack, or connecting individual to individual, like Shapr, or during offline networking event a special app is available (only during this conference and only for its participants), like Grip.events, or connecting suppliers and customers, like Tradescraper, or to connect companies and job seekers, like Xing. But there are only a few of the platforms that focus on how a company finds and selects another company as a business partner for future collaboration, for knowledge sharing or co-innovation. They are new and don't have many members, so there is not much information known and the result of their work is difficult to measure. Examples of such platforms are Marktreif.berlin, euMatch, EuroQuity.com, Powerlinx.com, and Njangilist.com.

1.2. Insights from practical perspective

To get some insight on real life practice, a couple of short preliminary interviews were conducted with the representatives of organizations for which networking is the core of business success.

During the interview with the President of European Confederation of Young Entrepreneurs, Przemyslaw Grzywa, he emphasizes the need for an online networking platform for young entrepreneurs. The European Confederation of Young Entrepreneurs consists of 16 organizations of young entrepreneurs across Europe. Now it faces the problem of finding an efficient way of connecting entrepreneurs between each other on an international level because the way it is done now (e-mails via member-organizations) is inconvenient. While making his own research on existing online networking platforms, Mr. Grzywa experiences a problem of finding an appropriate working tool for this purpose.

Additionally, Mr. Grzywa explained that currently the ways of networking are offline conferences and networking meetings, but they require time and resources for traveling and participating (entrance fee, accommodation, etc.). Moreover, he focused on the aspect that, to turn these offline meetings into efficient networking, prior weeks of online preparation are required. The preparation includes scanning the list of participants and making first contacts by emails to arrange personal meetings during events.

During a talk with the President of the "Start Berlin" organization, Kristina Noskevich, she pointed out that it is really difficult, inefficient, and time-consuming to expand the network of startups online, due to the fact that there is no one entry point for finding new partners. Currently, Google search, LinkedIn, and reference from the past and present partners are the ways of finding new partnerships.

Considering the above-listed facts, the assumption is made in regards to the existence of a gap between companies need in online networking and existence of online networking platforms.

1.3. Theoretical gap

Regarding the academic research, no studies were found on online business networking platforms (websites, apps), since it is a new and rare phenomenon. For example, Powerlinx started in 2012, Beconnections - in 2013, and MakePartnership only in 2017. Although, many studies about social networks (like Facebook and Twitter) and educational platforms are available. In addition, research on open source software platforms and online platforms for co-creation/co-innovation with customers/users also exist. Thus, as the need for such platforms is increasing, research about OBNPs is needed because they are perceived as future of networking. However, there is a lack of theoretical information and empirical data about online business networking platforms and how they can help to fulfill companies' needs in networking for co-innovation and partnerships.

There are a lot of studies for networking in order to find new suppliers, customers or distributors to enter foreign markets. But there is a lack of research about partnerships with the purpose of sharing knowledge and resources in order to co-innovate. Although, the interviewed companies in the report underline benefits of the partnership in such areas as extending product line (27%), gaining access to new technology/IP (26%), resource sharing (23%), and upgrading product/services (12%) (A Report on the Strategic Value of Business Alliances and Compatible Partner Matching, 2014).

Furthermore, the network, as a unit of analysis, is quite a popular field of study in academic research in various disciplines. It covers social and organizational networks in business studies, strategic management, sociology, communication, computer science and such. Back in 1982, Naisbitt identified ten megatrends that would transform humans' lives, one of which was a shift from hierarchical form to networks. That is exactly what happens now in the society and economics (Naisbitt, 1982). A lot is known and written about networks' structure, development, and management (Provan, Fish, & Sydow, 2007); however, less is known about what happened before a network is organized and operates. The literature review by Pittaway et al. illustrates that only 42.3% of articles reviewed focuses on networking infrastructure that supports networking activities (Pittaway, Robertson, Munir, Denyer, & Neely, 2004) and the literature on online networking infrastructure is scarce. That's why, in this master's thesis, a closer look will be taken at the process of finding new business partners, i.e. networking, for co-innovation.

1.4. Scope of the research

The goal of this study is to investigate the needs and goals of the small and medium-sized enterprises (SMEs) and startups which are in the process of finding new companies as business partners for joint co-innovation projects; examine what is important for companies in the process of networking; and how these needs can be fulfilled with the help of online networking platforms.

1.5. Research question

How can online networking platforms fulfill the needs of the companies (SMEs, startups) which are in the process of finding new organizations as business partners with the purpose of developing innovations together?

1.6. Sub research questions

With the purpose of clear structure and elegance of the research flow, the research question was divided into theoretical and empirical sub-research questions.

Theoretical sub-research questions

1. What are the needs in networking of companies which are in the process of networking in order to find new business partners for co-innovation?

2. What are the ways of seeking new business partners?
3. What are the similarities and differences of online and offline networking? Do offline and online networking complement or substitute each other?
4. How can online business networking platforms help to fulfill the needs of the companies in networking?
5. What features should these platforms have in order to help companies successfully network?

Empirical sub-research questions

6. What are company's needs in networking?
7. How does a company currently network?
8. What are the advantages and disadvantage of offline and online networking for a company? What are the reasons why companies choose a particular way of networking?
9. How do online business networking platforms help to fulfill the needs of companies in networking?
10. What can be improved in online networking?
11. What are the reasons for the fact that there are not many online business networking platforms available and/or they are not successful?

This thesis concentrates on business-to-business (B2B) networking. Moreover, the focus of B2B networking is to find a new company as a business partner that has ideas or complementary resources (e.g., expertise, technology, etc.) with which it is possible/fruitful to make innovative projects.

It focuses on networking with the goal of finding new local and regional partnerships for co-innovation among SME and startups via online networking platforms. Why SME and startups? Because, usually, they have little internal resources, so they have a need in partnering and acquiring external knowledge and resources in order to survive and flourish (Nkongolo-Bakenda, 2001; Kask & Linton, 2013).

Why local and regional partners? Because both are important in the present world since they complement each other. As an assumption, a local partnership can turn into a long and stable relationship in co-innovation projects more likely than on an international level due to the closeness in location and culture. However, online networking can foster international cooperation by saving costs and time and can be more significant in regards to business development and innovativeness for companies.

The master's thesis is organized as follows. In the next chapter, the theoretical background will be discussed and answers for the theoretical sub-research questions will be provided. At the end of this chapter, a research model will be derived which will be checked by empirical study. Later empirical research will be presented and findings from interviews with SMEs/startups and managers of online business networking platforms will be presented and discussed, answering the empirical sub-research questions. The last chapter will argue about practical and theoretical contributions of the research and give recommendations for companies-users of OBNPs and OBNPs' managers about how to improve and manage online networking and OBNPs. At the end, limitations of the research will be presented, the conclusion for the whole study will be drawn, and suggestions for further research will be given.

II. Theoretical Background

2.1. Definitions

In order to be on the same page with readers and avoid misreading, basic terms and definitions are presented below.

The definition of innovation presented by the OECD is the following: "*An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organisation or external relations*." (OECD/Eurostat, 2015). Co-innovation "*involves two (or more) partners that purposively manage mutual knowledge flows across their organizational boundaries through joint invention and commercialization activities*." (Chesbrough & Bogers, 2014, p. 3).

A business partner is defined as a company which has some degree of involvement in another company's business dealings. The terms "partnership" and "alliance" in the literature and daily life are interchangeable. But readers should be aware of the fact, that the term "partnership" may have a strong legal implication to bind one company with obligations to another company. One of the definitions of the term "alliance" is "*a close, collaborative relationship between two or more entities that share complementary assets and strengths to create increased value for their customers and their own organizations that could not be accomplished independently*" (ASAP, 2002, p. 5).

Scholars of Industrial Marketing and Purchasing (IMP) Group define term "business networking" as "*the **conscious** attempts of an actor to change or develop the process of interaction or the structure of relationships in which it is directly or indirectly involved*" (Ford & Mouzas, 2013, p. 433). It is the process through which all actors involved try to influence the evolving object of their interactions (Ford & Mouzas, 2013). In other words, business networking is the process of establishing mutually beneficial relationships with other businesses and/or potential clients. It should be highlighted that the networking process consists of conscious activities with an outlined direction or desired final destination. Moreover, networking is about establishing relationships with **new** companies (previously unknown) which can turn into potential partners in the future.

An online platform (also "two-sided" or "multi-sided" market) is where users are connected together by a platform operator for the purposes of facilitating interactions between people/companies. There is no single definition of online platforms[1], however, there is a list of common features:

1. Facilitation of direct interactions/transactions for value creation between users;
2. Collection and usage of a large amount of (non)personal data in order to optimize the service and user experience;
3. Existence of "network effect" - any additional user enhances the experience of all existing users;
4. Creation of new markets and organization of new forms of participation that bring benefits to users or disrupt traditional arrangements;
5. Usage of Information and Communication Technology to achieve all stated above.

The platform doesn't get involved in the interactions among users, except by asking for a fee in order to make a profit. It doesn't take control over the object of the transaction (e.g., cannot set a product's price). Such differentiation helps to exclude resellers and online service providers from the category of online platforms and narrow down the definition (EuropeanCommission, 2016).

[1] For more information about approaches to define online platforms see (Martens, 2016)

At this moment also no common definition of Social media and content platform (SMP)[2] exists, but it is described as a "*service which enables users to connect, share, communicate, and express themselves online or through a mobile app*" (Regulation (EC) No 139/2004 Merger Procedure. Case No COMP/M.7217 - Facebook/ WhatsApp. Article 6(1)(b) Non-opposition., 2014).

In this thesis the term "online business networking platform (OBNP)" is used. This term is new and not yet commonly used. That is why the definition is formulated by the researcher. An OBNP is an online platform (website and/or application), that enables the first stages of networking - searching, selecting, and contacting via the platform - among companies-users that are looking for new business partners (other companies) in order to collaborate and co-innovate together.

II (1) About companies-users

2.2. Companies' needs in networking

In the rapidly changing world of global competition and technological innovations, one of the ways how the race can be won is by delivering the solution with the highest value to customers, which can be reached only by partnership work. Nowadays maintaining a competitive advantage and marketing leadership is more than a challenge, it is a necessity for companies. To remain strong, it is essential to find opportunities to enhance core competencies. Core competencies are not only products/services or physical assets, but also include organizational knowledge, capabilities to deliver value, unique technical capabilities, and integration of customer needs to technical possibilities.

Figure 1 illustrates the usage of alliances for creating a competitive advantage over the years. The reasons why alliances are getting more popular are globalization, the Internet, new business competitive models, and the need to provide integrated personalized solutions throughout the value chain, among others. Moreover, nowadays products/services become more and more modular and knowledge is distributed across organizations (Baldwin & Clark, 2002), these are also the reasons why companies recognize an increasing need for collaboration with other companies both formally and informally. Over the past decade, companies made more than 42.000 alliances worldwide (Fischer & Varga, 2002).

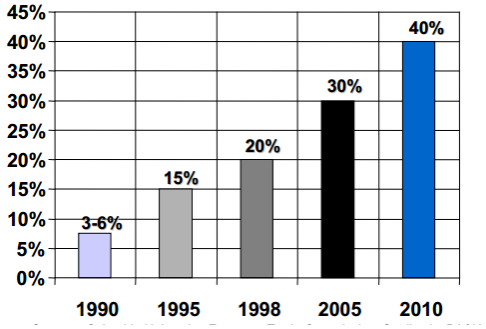

Figure 1. Alliances as a percentage of revenue for Top 1000 USA public companies (Greve, Rowley, & Shipilov, 2014)

A creation of alliances starts with networking. At the beginning of the networking process, a company should identify the area where or what kind of knowledge, resources or innovations are needed to help create a competitive advantage and develop the business. Without knowing/understanding its own needs, the company could have difficulties during the networking process. When the company knows what to look for, then networking will be an effective tool. It is important to be precise about the purposes of an

[2] Social media and content platforms also called social networking services

alliance before seeking partners and entering into negotiations to avoid disappointment, conflicts, and losses during the cooperation.

The companies' needs in networking include the following:

1. Access to knowledge and expertise beyond company's borders (ASAP, 2002) and acquisition, sharing, and development of knowledge (Soekijad & Andriessen, 2003). High communication levels among companies promote information exchange, leading to a better knowledge of the other's technologies, services, and activities. With this knowledge, companies can enhance their effectiveness, innovativeness, and business development, by identifying a combination of complementary resources and activities (Axelsson & Easton, 1992; Huggins, Johnston, & Thompson, 2012). Networking provides many opportunities to expand the knowledge base, receive feedback and see things from alternative perspectives, and learn from others' experience (The Advantages of Networking, 2017);
2. Learning (Kraatz, 1998) - learning from others' best/worst practices saves time, energy, and resources (The Advantages of Networking, 2017);
3. New ideas and seizing opportunities - wider network or building connections outside of the network helps to seize business opportunities (The Advantages of Networking, 2017; Burriss, 2013);
4. New technologies (Fischer & Varga, 2002), as well as complementary resources (Burriss, 2013), can help to enhance R&D capability (ASAP, 2002). Also, companies may acquire skills and capabilities from their partners that enhance their own competence; therefore, their competitive advantage and innovativeness (Hitt, 2000; Mothe & Quelin, 1998). This leads to the possibility of expanding an area/amount of innovations (Powell, White, Koput, & Smith, 2005; ASAP, 2002);
5. New technologies, complementary resources, and innovations lead to new product development (Browning, Beyer, & Shetler, 1995; The Advantages of Networking, 2017) for updating/extending product offerings (ASAP, 2002);
6. Providing added value to customers (ASAP, 2002) - it can be reached by new technologies and complementary resources which are possible to acquire via collaboration with other companies;
7. Access to a variety of markets and establish a unique position in the national/international markets (ASAP, 2002; The Advantages of Networking, 2017). Successful foreign partnerships can improve a firm's competitive position by securing, maintaining, or enhancing its competitive advantage (Cavusgil, 1998);
8. Expansion of customer base (ASAP, 2002);
9. Increasing sales and profitability and reduction of overhead costs through sharing costs or outsourcing (ASAP, 2002);
10. Strengthen reputation in the industry as a result of partnership with other organizations (ASAP, 2002) and promote the organization (The Advantages of Networking, 2017);
11. Providing marketing (ASAP, 2002);
12. Setting up distribution networks and supply customer service (ASAP, 2002).

2.3. Ways of seeking new business partners

Network research accents the importance of inter-firm ties in acquiring and exploiting new knowledge. Networks are a source of information for companies about what goes on in the market. It should also be highlighted that the same information is not available to all the companies in the market (Sharma & Blomstermo, 2003). In this imperfect market situation, social ties located in strategic positions are better informed on market needs and demands, thus, can provide a company with useful information about opportunities and choices otherwise not available (Lin, 1999). It is stated that companies with a large number of weak ties[3] enjoy an advantage over those that are engaged in strong ties, for example, weak ties

[3] "*Ties are weak when the amount of time, emotional intensity, intimacy, and reciprocity is low"* and strong ties are vice versa (Sharma & Blomstermo, 2003, p. 744). For example, strong ties – family and friends, existing business partners; weak ties – friends of friends, members of the same association.

supply more novel knowledge than strong ties (Granovetter, 1973) that is relevant for innovation activities. The knowledge about weak and strong ties and what the benefits from each of them are should be considered when choosing the way of networking.

Two ways of networking exist – offline and online, but they could be combined. Offline is real life face-to-face networking. Online is distant networking with the use of digital devices and the Internet. Both of them can be on the national and international level.

Offline includes networking:

- via circles of family and friends;
- via references from existing contacts and partners;
- professional conferences and fairs;
- networking meetings and clubs;
- professional associations (e.g., trade associations, industry related associations, etc.).

Online includes networking:

- finding companies' contact details via web search engine (e.g., Google, Yahoo!, Yandex, Bing, etc.) and contact them directly via email or phone;
- via websites which organized like an online database of companies' contact details (e.g., Crunchbase) and then contact them directly via email or phone;
- social networks (e.g., Facebook, Twitter, LinkedIn, etc.),
- industry related forums and blogs which have features for interaction;
- networking websites (e.g., connecting investors, companies, job seekers, etc.);
- online business networking platforms (e.g., Powerlinx, NjangiList, EuroQuity, etc.).

As consumer adoption of smartphones and other types of mobile technology increases, online platforms are playing an increasingly important economic and societal role. Online platforms are in the top of the list of the most accessed websites in the world (Martens, 2016), specifically, search engines and social media as the most visited types of platforms. The growth and importance of online platforms have been widely recognized; as well for businesses – in 2013, 61% of SMEs in Europe commented that they used social media for working reasons (Batikas, van Bavel, Martin, & Maghiros, 2013).

2.4. Similarities and differences of online and offline networking

It seems that there are more differences than similarities between offline and online networking. However, similarities are the main idea of networking and a broader picture – to meet and get in contact with potential partners. Moreover, to share the information and ideas among people and looking for opportunities for collaboration, it is also about maintaining and building relationships.

The differences are about specific aspects of online and offline networking. They are presented in Table 1. The differences of offline and online networking are considered to be the factors/reasons why people/companies choose a particular way of networking and they are used in the research model (see 2.5 section "Research model").

Table 1. Differences of offline and online networking

Criteria	Differences	
	Offline	**Online**
Speed/time spent on searching, contacting, and	Time-consuming because of traveling. Time spent for talking to people – telling the same information to	Faster due to no time spent for traveling. Fasters since it is possible to send the

communicating	different people	same information (copy/paste)
Scope (number) of contacts	Restricted to: - people presented at a conference, meeting, etc.; - a number of friends and partners; - association's and club's members	Unlimited amount of contacts (restricted only to members of online platforms or company's online presence)
Accessibility	Only during conferences and meetings (exception – family and friends and existing partners). Should be the same Geo location	Anytime from anywhere
Costs	Travelling and accommodations costs and other costs related to business trips; entrance or membership fee	Only Internet connections costs and online platforms membership fee (if applicable)
Trust	Higher due to meeting concrete people from companies (personalized communication)	Lower due to impersonalized communication
Quality of matching companies to each other	Random or depends on personal decisions (i.e., subjective)	Advanced when matching algorithms and/or Artificial Intelligence (AI) algorithms are used (i.e., objective)
Availability of information about a company	Restricted to presentations, conferences' brochures or amount of information that an interlocutor shares and answers	Information can be gathered from different sources – company's website, social networks, OBNPs, etc. There is a possibility for exchanging heavy files, videos, images, etc.
Ease of interaction	Depends on: - people's personality (i.e., extrovert/introvert) and self-confidence; - approachability of another person	Easy and open if contact details of another company are available. More relax, since there is time to prepare an answer
Project type (e.g., low/high priority and costs; short/long term, urgent/non urgent)	Depends on personal decision (i.e., subjective)	Depends on personal decision (i.e., subjective)
User experience	Subjective, depends on the quality of event organization and management (date/time, location, attendees, content, equipment, food/drinks, etc.)	Subjective, depends on user interface and quality of the Internet connection

Burriss mentioned that the basic needs of companies are currently fulfilled by both online and in real life networking. However, he pointed out, that online networking alone is not how these needs are fulfilled today. Burris said that real life networking is the most powerful way to find strategic partners, while online networking supports the offline networking (Burriss, 2013).

Hennigan, in turn, said that companies can fulfill some of the needs in networking using online networking tools; others can be addressed by employees who network for the company and by organizing events that foster the development of business connections and relations (Hennigan, 2015).

Online networking sometimes is more convenient than offline networking. This is because communication can be asynchronous in case of online networking when a person can take the time to answer questions rather than reply immediately (Lynch, 2015; The Advantages of Networking, 2017). Furthermore, nowadays, to make offline networking fruitful and efficient, online networking is needed before offline networking events, such as to make a list of relevant companies and contact them to make appointments.

When choosing a particular way of networking, benefits and drawbacks of each method, as well as personal preferences, should be taken into account. The differences of online and offline networking (Table 1) may be seen as advantages and disadvantages of these ways.

About the benefits of online networking, Toyama argued that using ICT can help to economize transaction costs[4]. The information mediates the process of completing a transaction relationship, and, therefore, using ICT in that process can help to economize transaction costs. In particular, by using ICT it becomes possible to (1) improve/ease the search process; (2) achieve communication independently of the geographical distance/location of partners; (3) process large volumes of data more quickly; and (4)process the data at a lower price (Toyama, 2007).

Furthermore, the benefits of using online platforms include the following: information is more accessible(53%), communication and interaction are easier (51%), emerging of new markets and business opportunities (48%), increased choice of products/services (43%), and etc. (Figure 2) (EuropeanCommission, 2016).

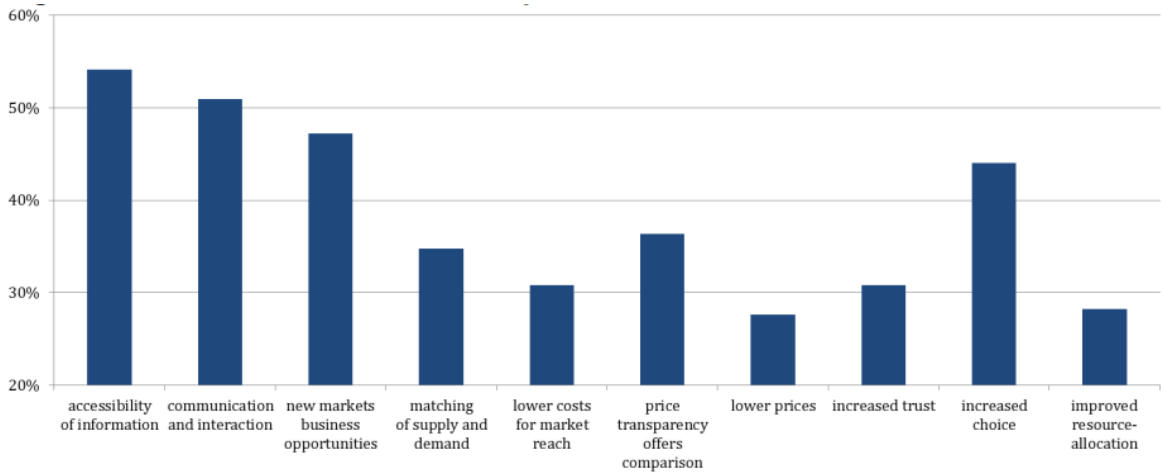

Figure 2. Perceived benefits of online platforms (EuropeanCommission, 2016)

In 2009, McKinsey found that 69% of respondents stated that their organizations have gained significant benefits from investments in Web 2.0, such as greater ability to share ideas and better access to knowledge and experts (51-68%), more innovative products/services (19-25%), more effective marketing (52%), reduced costs of communication (49-54%) and travel (40%), lower cost of doing business in general (32%), and increased revenues (14-18%) (see Figure 3) (Bughin, Chui, & Miller, 2009).

[4] "*In order to carry out a market transaction it is necessary to discover who it is that one wishes to deal with, to inform people that one wishes to deal and on what terms, to conduct negotiations leading up to a bargain, to draw up the contract, to undertake the inspection needed to make sure that the terms of the contract are being observed, and so on.*" (Coase, 1960, p. 15).

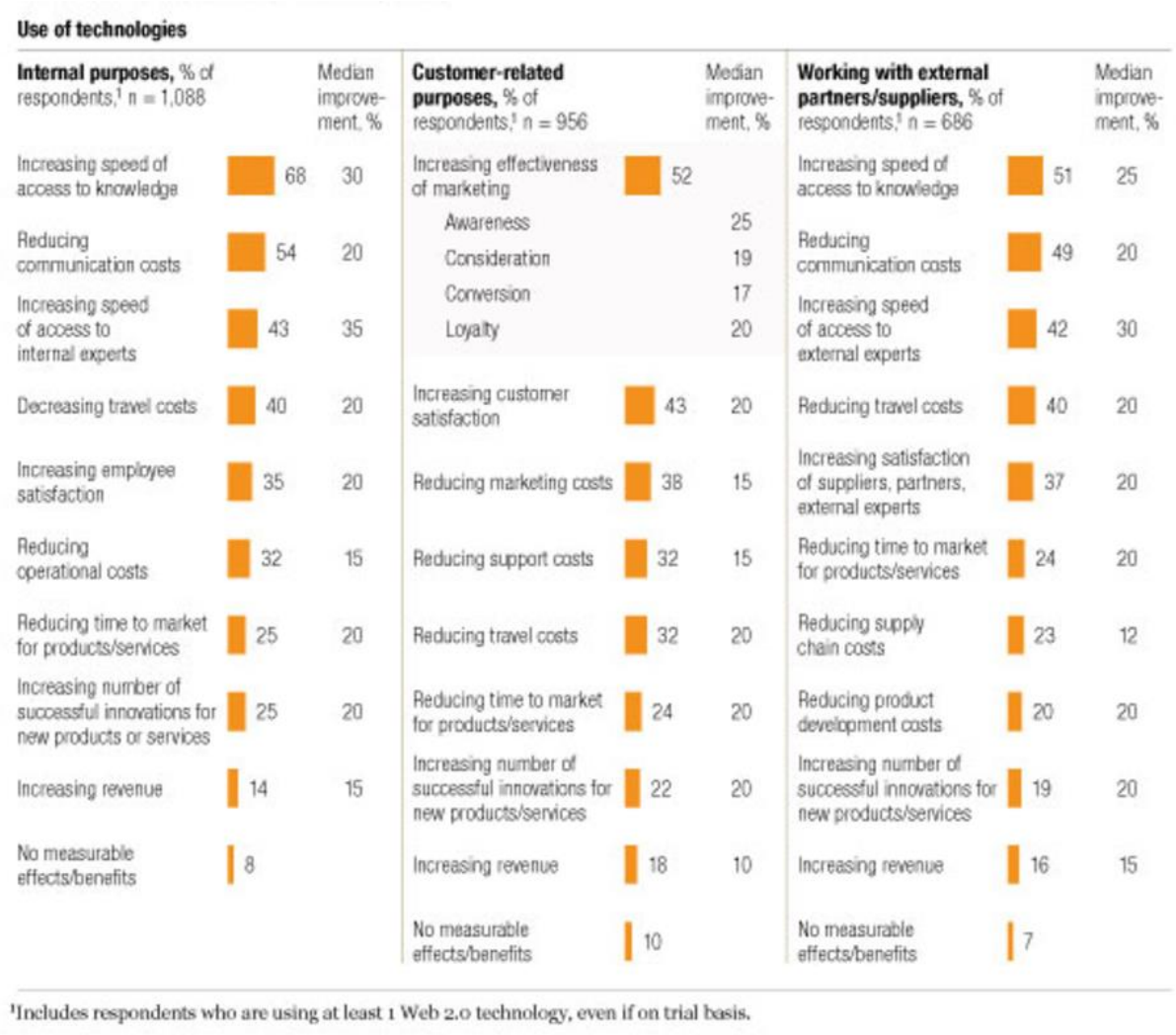

Figure 3. Measurable benefits from using Web 2.0 (Bughin, Chui, & Miller, 2009)

In 2015 Copenhagen Economics conducted a study, which estimated that online search platforms save European users around EUR €140 billion in spent time (Thelle, Sunesen, Basalisco, la Cour Sonne, & Fredslund, 2015).

Deloitte in its study about Facebook stated that Facebook's global economic impact was over EUR €195 billion in 2014. It was because Facebook helps to unlock new opportunities through connecting people and businesses, stimulating innovations, and streamlining marketing (Deilotte, 2015).

In the report of European Commission, 29% of SMEs that actively use social media for business purposes claimed that their situation has improved over the period of 2010 – 2013. SMEs benefit from using social media in their external interactions with partners, investors, and suppliers since it increases the speed of access to knowledge and experts, and reduces communication costs (see Figure 4) (Batikas, van Bavel, Martin, & Maghiros, 2013). Online platforms help SMEs and startups to achieve "big company" benefits from digitalization (EuropeanCommission, 2016).

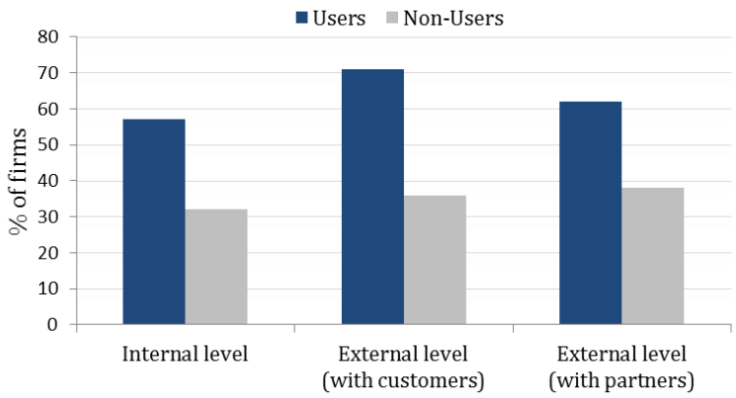

Figure 4. Benefits of using social media (Batikas, van Bavel, Martin, & Maghiros, 2013)

Potential drawbacks of using offline networking include:

1. Not having a clear networking strategy may result in reduced benefits for a business.
2. It requires (daily) monitoring. If a company doesn't actively manage its online presence, it may not see any real benefits.
3. Additional resources may be needed to manage online presence and online networking.
4. It can be difficult to quantify the return on investment and the value of one method and tool over another.

Taking into account above presented information it can be concluded that online and offline networking complement each other rather than substitute.

2.5. Research model

One of the results of the theoretical research is the research model about the process of using online and offline networking and factors/reasons influencing the decision of choosing the particular method (see Figure 5).

Before initiating a networking process, a company should identify its needs in networking and plan a networking strategy. Then the process of networking starts and it consists of different stages: searching stage when companies screen information about other companies, then selection stage – when companies choose other companies with which it is desired to establish contact and relationships, the next stage is an approach or contacting stage, the last one is building and maintaining relationships. This research and the research model focus only on the first three stages of the process.

The stage I “Searching and finding” covers the process of screening companies that can potentially meet a partners profile or partner criteria that were specified in a networking strategy (ASAP, 2002). On this stage, the search is broad and preliminary. The goal is to screen as many companies as possible and make a list of the considerable amount of companies that potentially can fulfill the requirements so that on the next stage there is a choice.

Stage II “Selecting” covers a process of choosing companies from the list. Here it is important to obtain information in depth about a potential partner to assure identity and quality of the company (Cavusgil, 1998) and that the company meets all the requirements and criteria. The goal is to choose and make a list of the most appropriate potential partners.

Stage III “Contacting” covers the process of approaching and establishing a contact with selected companies. It includes first interaction with another company, for example, a couple of online messages

or offline meetings to check if the two companies are on the same track and have a will to be partners before discussing details of a particular collaboration possibilities. The goal is to start interaction with potential partners.

On each of the stages, there are different factors/reasons which influence the decision of choosing between online and offline networking; they were presented in Table 1.

The factors are divided into two groups – factors from the organizer's side and a company's side. The factors which are in the organizer's side (left column) represent the technical factors that an organizer of offline networking activities or an organizer/manager of online networking activities decides on. The right column represents the factors from a company's side. A company which is in the networking process may influence these factors.

The relationship between each factor and a particular stage of networking is discussed below. To begin with factors from the organizer's side, factors such as "Costs" (how much the networking process costs), "Speed/time spent" (how fast it is possible to do), "Scope" (how many potential partners are found), and "User experience" (how convenient, pleasant, etc. the process is) are important for the all three stages. The factors "Quality of matching" and "Availability of information" are important for the stages "Searching and finding" and "Selecting" since on these stages the decision about which companies to choose is made and recommendation of matching companies and the information in place about them are on time and relevant. The factor "Accessibility" is important for stage "Searching and finding" and "Contacting" since selecting companies is possible to do without a direct access to networking tools, but not vice versa. The last factor "Ease of interaction" influences the only stage "Contacting", because on this stage the interaction starts.

The factor from a company's side - "Project type" is relevant for the first two stages – "Searching and finding" and "Selecting" because a company has influence on this factor and on the criteria of potential partners. It is relevant before starting to approach potential partners. The factor "Trust" is applicable to stage "Selecting" since on this stage the short list of potential partners is made and it is important to trust a tool that a person uses and companies that are using this tool in order to make a right choice.

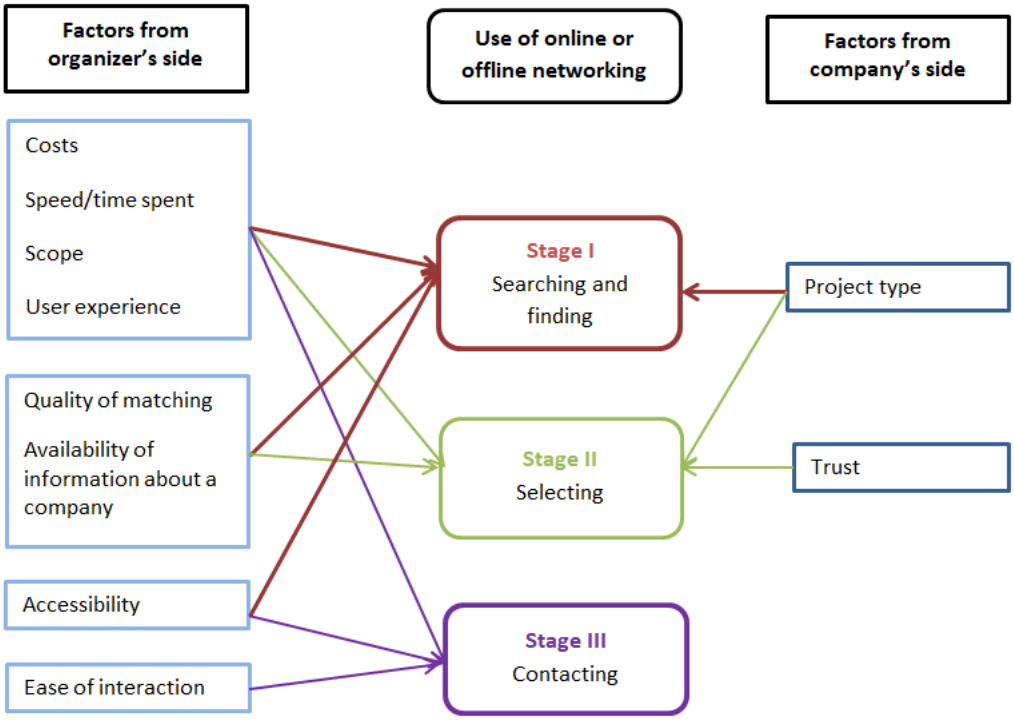

Figure 5. Research model

II (2) About OBNPs

2.6. How online networking platforms fulfill the companies' needs in networking

Back in 1981 public relations researchers predicted that new ICT would reduce the amount of face-to-face communication (Duhé, 2012). That is what happened in the nowadays reality - the web has transformed the community and social capital into less dependent on physical location (Wellman, 2001). It's not news anymore that the Internet has evolved into the main source of communication, information, and commerce. New technologies constantly appear since the Internet continues to progress. Therefore, companies must always adapt according to technology and rapidly changing digital environment. Organizations should constantly seize the opportunities that Web 2.0 technologies can deliver to them (Hoffman, 2009; Chui, Miller, & Roberts, 2009). ICT provides users with new web tools to create relationships, thus, providing new opportunities (Ellison, Steinfield, & Lampe, 2011). Creating virtual communities, businesses can derive enormous benefits through weak connections among their members (Jackson, 2011). Even that academics have recognized the potential of online communication technologies for enhancing networking, this area stays underexploited (Sigfusson & Chetty, 2013).

In the McKinsey report it is stated that 43% of companies which are working with external partners and suppliers and have integrated Web 2.0 technologies strongly into their work, have at least one measurable benefit from using it. Moreover, 76% of the companies use three or more technologies of Web 2.0 (Bughin, Chui, & Miller, 2009).

The networking tools connect people behind organizations. They offer room for sharing information, content, opinion or experience. Moreover, they offer room for participation in a dialogue. The effective use of online tools can complement traditional search about companies or industries by providing a real-time view. These tools can help to capture a broader picture of a company and its strategy. With online

tools, practice does not become perfect, but it improves the ability to acquire the information (Brown, 2011). More and more companies start to use online networking platforms for their businesses, due to the fact that platforms can fulfill indirectly their needs in networking (see Table 2).

Table 2. How OBNPs fulfill the companies' needs in networking

Companies' needs in networking	How OBNPs fulfill these needs
Access, sharing, and development of knowledge and expertise Learning Expanding an area/amount of innovations New product development Providing added value to customers	- Via providing improved awareness through the availability of information about products/services, technologies, and other companies that the company-user is unaware of, more accessible information about it, greater choice, diversity (EuropeanCommission, 2016); - Via providing access to knowledge sharing and learning on a global scale (Bessant & Tsekouras, 2001; EuropeanCommission, 2016)
New ideas and seizing opportunities	• Via reducing information asymmetry through the promotion of business opportunities, recommendations, rating, and review systems (EuropeanCommission, 2016); • Via providing improved awareness through the availability of information about products/services, technologies, and other companies that the company-user is unaware of, more accessible information about it, greater choice, diversity (EuropeanCommission, 2016)
Access to new markets and establish a unique position there	- Via providing improved awareness through the availability of information about products/services, technologies, and other companies that the company-user is unaware of, more accessible information about it, greater choice, diversity (EuropeanCommission, 2016); - Via providing a possibility for obtaining new business relationships and to strengthen current network (Sigfusson & Chetty, 2013); - Via making it easy to manage a large number of relationships, especially weak ties (Sigfusson & Chetty, 2013)
Expand customer base	• Via a possibility for obtaining new business relationships and to strengthen current network (Sigfusson & Chetty, 2013)
Increase sales and profitability	- Via making it easy to manage a large number of relationships, especially weak ties (Sigfusson & Chetty, 2013); - Via providing a possibility for obtaining new business relationships and to strengthen current network (Sigfusson & Chetty, 2013); - Via providing monetary benefits through reduced costs of accessing information, transaction costs, promoting deals (Sigfusson & Chetty, 2013); - Via improving user experience through time-saving,

	accessibility at any time from any place, personalization, simplification of transactions (EuropeanCommission, 2016)
Strengthen reputation Provide marketing Set up distribution networks and supply customer service	• Via making it easy to manage a large number of relationships, especially weak ties (Sigfusson & Chetty, 2013); • Via providing a possibility for obtaining new business relationships and to strengthen current network (Sigfusson & Chetty, 2013)
Reduction of overhead costs	- Via providing monetary benefits through reduced costs of accessing information, transaction costs, promoting deals (Sigfusson & Chetty, 2013); - Via improving user experience through time-saving, accessibility at any time from any place, personalization, simplification of transactions (EuropeanCommission, 2016)

An interesting aspect is that nowadays the online relationships serve as an indication of social/business status: larger network -> stronger network identity. Users try to connect with key people/companies of the industry/area. Entrepreneurs increase their network identity due to the reason that this is one of the most important resources in online communication (Sigfusson & Chetty, 2013). Moreover, acknowledged relationships to the individuals/organizations may be taken by other organizations as certifications of social credentials, some of which reflect the accessibility to resources through social networks (i.e., social capital) (Lin, 1999).

2.7. Features of online business networking platforms

Taking into account that strategic business alliances can be crucial for businesses, on the other hand, seeking and selecting business partners is not so easy. Therefore, to make the process of networking fruitful and beneficial for the companies and meet their needs, platforms must have the following features:

1. a convenient way of matching the two sides of an interaction (e.g., search, filters, recommendation function) (Martens, 2016);
2. instruments to increase trust (e.g., reviews, identity check, monitoring the status and updates of the information). When trust is built between partner companies, then they are likely to recognize each other's strengths and use them for mutual benefits (Yli-Renko, Autio, & Tontti, 2002; Coleman, 1988);
3. social login[5] - the advantages of using social login are the following: it saves time on registration - online platform receives basic information about the company; better user experience - more convenient way of logging: no new logins and passwords; it improves trust and provides identification - no bots; it provides additional information - link to social network profiles (EuropeanCommission, 2016);
4. the McKinsey survey results show that 49% against 48% respondents stated that social networking is beneficial for working with external parties. It could be noted that maybe it is more beneficial to combine social networks with blogs (for 60% of respondents is beneficial) or with Rich Site Summary (RSS) - 50% (Bughin, Chui, & Miller, 2009).

[5] "*Social login is a single sign-on (SSO) technology that allows a user to authenticate on various websites and apps by connecting through a social media profile (e.g., Facebook, LinkedIn, Twitter) rather than typing a separate login and password on each website.*" (EuropeanCommission, 2016, p. 34)

An important issue that has to be mentioned is that online platforms must obtain critical mass[6] in order to survive and be successful due to the networking effect and saving transaction costs (Evans & Schmalensee, 2010). With an increasing number of the platform's users, the significance of an effective matching mechanism also increases. On the capability of efficiently matching large amounts of users for their further interaction depends the success of the platform (Martens, 2016).

[6] "*Critical mass is a minimal amount of users that is enough to attract more users and result in sustainable positive feedback"* (Evans & Schmalensee, 2010).

III. Methodology

This study aims to investigate the needs in networking of companies that are currently actively involved in the process of searching for new potential partners in order to innovate together. Moreover, how online networking platforms may help to fulfill these needs.

3.1. Qualitative method

The conceptual framework discussed in the previous chapter will be adjusted by the qualitative research. A **qualitative method** was chosen due to the fact that the aim of a qualitative research is to explain rather than predict phenomena (Leavy, 1994) – to explain the assumed stages of networking process and factors influencing each stage; and to understand phenomena rather than measure them (Gordon & Langmaid, 1988) – to understand why these factors are relevant or not for particular way of networking and stage. The benefits of a qualitative approach are that it is an open-minded method and intends to comprehend the situation/problem. As this method provides intense contact with the field of research and gathers data from inside, it brings a holistic view of the context and, thereby, meaningful findings (Miles & Huberman, 1994).

In addition to qualitative research, multiple different relevant sources (e.g., websites articles, online news, an online topic relevant discussions, etc.) will be used for investigating and checking the information and getting a deeper understanding of the research issue, i.e. for triangulation.

Regarding qualitative method, in-depth **semi-structured interviews** with representatives of the companies and networking platforms are seen as the most appropriate method to collect relevant empirical data and analyze the situation. This method was chosen since semi-structured interviews combine flexibility for the researcher in asking questions and the interviewee for answering them and comparability of the participants' results comparing to other kinds of the interview (structured and unstructured).

3.2. Sampling and sample

Regarding **sampling and sample**, for qualitative research, sampling is finished when theoretical saturation is reached (Flick, 2014). Following this concept six interviews with companies-users of OBNPs and five interviews with managers of platforms (in total 11) were conducted. It was intended to interview OBNPs' managers and companies-users of the same platforms to get deeper insights and receive two-sided opinions and experience.

The **target audience** of this research consists of two groups. The first group is companies (SMEs, startups) which are currently actively involved in the process of networking in order to find potential partners for co-innovation. These companies are the users of the below listed online networking platforms (in this master's thesis are also called "company(ies)-user(s)"). Managers of the companies or employees, responsible for networking, were asked to participate in the interviews. Their input helped to understand the needs of these companies in networking and their current networking experience in general and user experience of particular OBNP.

The second target group is active online business networking platforms (in this master's thesis from now on also called "platform-provider(s)") - euMatch www.fitforhealth.eu, Marktreif.berlin, Njangilist.com, Euroquity.com, Company X). Managers of these platforms were invited to participate in the interviews. Their input helped to evaluate what the needs in networking of their users are, what makes their platforms successful, and what the challenges/problems platforms face. The questions for OBNPs' managers were answered from the position of a platform-provider(s).

For the semi-structured interviews, protocols for two target groups were developed by the researcher as an orientation for the interviewer (i.e., a number of open-ended questions); it helps to cover the intended scope of the interview (see Appendix 1 and 2 respectively). An interviewer can deviate from the sequences of questions and the exact formulation of the questions. Since no list of possible answers is presented, interviewees are expected to reply as freely and extensively as they wish/is possible (Flick, 2014). If it was possible/preferred by the interviewees, face-to-face meetings were scheduled (two meetings were conducted), otherwise, a Skype call was organized (nine Skype calls were conducted). Interviews lasted around one hour. All interviews were audio recorded by an agreement with interviewees. Additionally, side notes were written by the researcher. The next step was to transcribe the audio tapes with the end result of computer-readable text files. All interviewees consented to use their words as quotes, moreover, all companies (except one "Company X") gave consent to use their company's name in this master's thesis.

3.3. Validity and reliability

Talking about **validity and reliability** of qualitative research with conducting semi-structured interviews, it should to be mentioned that the explored circumstances of the research are complex and dynamic and the findings reflect reality only at one point in time (Kvale & Brinkmann, 2009), since the data was gathered under unique conditions which cannot be replicated and any change in them could change the data as well (Saunders, Lewis, & Thomhill, 2009). Saunders et al. suggested making and retaining notes regarding the research design and the data obtained in order to enable other researchers to understand the process and findings and if appropriate to re-analyze the collected data (Saunders, Lewis, & Thomhill, 2009).

In order to avoid reliability and validity concerns, several methods were applied during preparation and conducting the interviews. To decrease interviewer bias neutral tone of voice was applied, no personal comments or beliefs were expressed, and also the appearance of an interviewer was official and appropriate. To reduce interviewee bias a research about an interviewee and his/her company was made in advance, the relevant information about the research was sent to all interviewees before interviews, moreover, friendly atmosphere was established by a small talk at the beginning of the interviews that all increased credibility and trust to share information by participants. Also it should be mentioned that 9 out of 11 interviews were conducted by Skype which could have an impact on the findings. Skype calls reduce the non-verbal communications that could lead to misunderstanding or subjective interpretation of the provided information, also decrease trust and credibility between the researcher and the interviewees. To avoid subjective interpretation, the transcripts of the interviews were sent to the participants for checking the accuracy.

It should be mentioned that from the target audience only 45% of the interviewed people are from the Generation Y and Z, the rest 55% are from the Generation X and Baby Boom generation. Specifically, from the target group of companies-users 33% of the participants are from the Generation Y and Z and 67% - from the Generation X and Baby Boom; from the platform-providers group – 60% are from the Generation Y and Z and 40% - from the Generation X and Baby Boom. This fact can influence the results of the study since the Generations X and Baby Boom are not used to the digital technologies and may face difficulties in using online networking that's why they don't adopt it often in their work and can be skeptical about online networking since they are used to offline networking. The same applies to the platform-providers - the generation type affects the way of building and developing an OBNP.

3.4. Data analysis

The process of qualitative **data analysis** was begun as soon as the first data was obtained and followed the next steps: 1. Organize the data (transcribing, coding), 2. Analyze the data and use the framework for a descriptive analysis, 3. Make a conclusion.

For **coding** the interviews, QDA Miner Lite qualitative analysis software was used. Also, the software provides statistical information about the data such as code frequency. The analytical part was focused more on coding, nevertheless, other tasks such as patterning, categorizing, interrelating, and reasoning have been part of the data analysis.

The process of coding was organized following the framework of Corbin and Strauss: 1. Open coding, 2. Axial coding, 3. Selective coding. To generate codes three methods were applied: 1. Terms that emerge from the data; 2. Terms used by the respondents ('in vivo' codes); 3. Terms from theory and literature (Corbin & Strauss, 2014). For open coding, the transcripts were read and codes were assigned to appropriate units of data. To similar units of data, the same codes were assigned. For axial coding, the relationships among the codes were found and organized into subcategories. In selective coding categories of codes emerged. The whole list of codes can be found in Appendix 3.

For analyzing the data, a **deductive approach** was used. The theory has been used to develop the initial research model which helped to organize and direct the data analysis. The analysis began with summarizing the key points of the interviews. It helped to be familiar with the principal themes that have been emerging from the interviews. The next steps were – categorization and unitization of the data, it was made by means of coding and making categories. Following that, recognizing relationships and continuing developing categories, key themes and patterns were identified. Subsequently, preliminary conclusions were made, further evaluated and checked.

3.5. Data description

In Table 3 and Table 4 data description of companies that participated in the interviews is provided. In Appendix 4 more information about OBNPs can be found – a short description and why it is considered being an OBNP.

Table 3. Companies-users of OBNPs

#	Company's name	Company's short description	Position of the interviewee	OBNP that it uses	Company's location
1	Attestation Légale (ALG)	is a startup which develops a software for the construction industry. It was founded in 2011 and has 70 employees	Business Development Manager	Marktreif.berlin	France
2	B. Toussaint	is a startup, founded in 2004, has 2 employees. It develops a 3D varnish technology	Founder	Marktreif.berlin	Germany
3	Mahama's VR&Co	is a Virtual Reality (VR) coaching and education lab (startup). The number of the employees and the date of registration were not found	Founder	Fitforhealth.eu	Bulgaria

4	RECENDT	is a research company (SME), operates in the field of developing technologies for non-destructive testing. It was founded in 2009 and has 42 employees	Project Manager and Business Development Manager	Fitforhealth.eu	Austria
5	SeqOne	is a health tech startup developing a software for analyzing DNA. It was founded in 2017 and has 8 employees	CMO	Euroquity.com	France
6	SpellAfrica Initiative	is a startup developing a software for learning English for Africans. It was founded in 2013 and has 4 employees	Founder and CEO	Njangilist.com	Nigeria

Table 4. Platform-providers (OBNPs)

#	OBNP	Position of the interviewee(s)	Company behind the OBNP	Location of operation
1	Fitforhealth.eu	National Contact Point (NCP)	Netherlands Enterprise Agency is responsible for the OBNP	European Union
2	NjangiList.com	Founder	NjangiList	Germany/ Africa
3	Euroquity.com	Communication Manager; Assistant of Project Manager	Bpifrance	Europe/ Africa
4	Marktreif.berlin	Research Associate	IHK Berlin	Germany/ Europe
5	Company X[7]	-	-	European Union

[7] The company preferred to stay anonymous.

IV. Results

This part of the thesis presents the results from the empirical study - semi-structured interviews and additional Internet resources. It should be highlighted that the number of respondents for each question varies since not all participating companies answered all questions due to the fact that some of the questions were specifically for companies-users but not for platform-providers and vice versa. Moreover, since semi-structured interviews were conducted, it gave a bit of flexibility in asking questions, which is why the researcher went with the flow of some conversations.

IV (1) About companies

4.1. Companies' needs in networking

The companies-users and platform-providers that participated in the research stated the following needs in networking. The needs are sorted by the frequency in descending order (also see Figure 6).

1. Product/technology development, co-innovations. For this, new ideas, (international) expertise (e.g., in design; in the technology of virtual reality (VR); in genetic engineering, programming; chemical engineering), experience, and capability for R&D, experiments/tests, and prototype building are needed. Several ways were mentioned how it can be reached - by creating a network of different stakeholders (e.g., design companies, manufacture companies, art universities and high school, and foundations); creating a center of technology; creating a consortium of international partners with whom it is possible to work together and apply for European Union (EU) funds. For example, Marktreif.berlin stated: "*Our users (SMEs/Start-ups and scientific/research institutions) want to collaborate with other partners (SMEs/Start-ups and scientific/research institutions) in the field of R&D to make a product, service or method market-ready*."
2. International expansion – this requires support from partners in terms of their expertise, experience, and funds. Moreover, partners abroad for testing a product and business model to make the expansion successful are needed. For instance, SeqOne said: "*We want to prove the revenue and business model in France, but also have examples of the technology being adopted in other countries - we want to go international*."
3. Increasing visibility, transparency, brand recognition, reputation, and promotion of a company. It can be reached by making (international) expositions (for this support from partners is needed in terms of expertise, experience, their reputation, and funds), also by creating a network of influential people who can give an advice and spread the world.
4. Business development – for this, partners are needed in terms of new opportunities, new technologies, and funds.
5. New markets (not traditional) creation – support from international partners (e.g., designers, art schools, and foundations; VR developers, medical consultants, and scientists) is needed.
6. Business growth – this requires strategic partners (who can also be investors) and talents.
7. Additional learning - especially startups on their development stage need additional competencies. This need is also mentioned in the online article "4 Success Tips From Small Businesses That Are Doing It Right" explaining that it is also possible to learn from competitors establishing relationships with them (Shappley, 2017).
8. Being part of a community in terms of sharing knowledge, following news and modern trends, meeting new people.

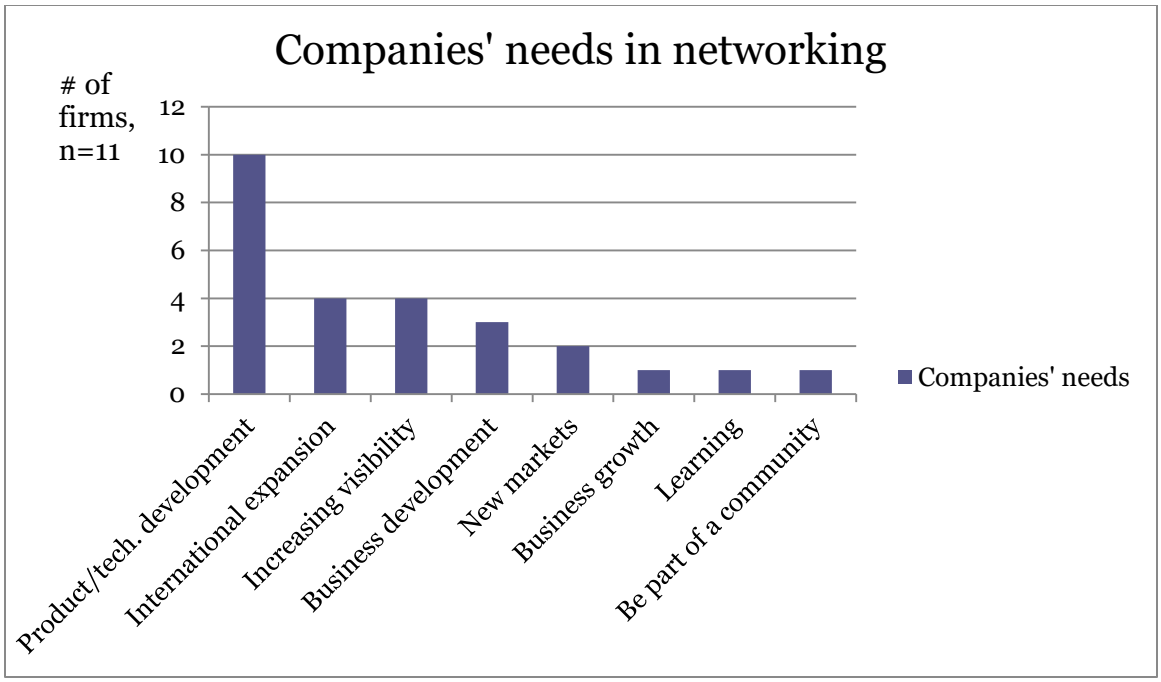

Figure 6. Companies' needs in networking

Along the way of networking for finding partners for collaboration, the companies were mentioning that they are looking for investments as well. Looking for funds and investors as a purpose of networking was a red line across all the interviewed companies. For example, B. Toussaint said: *"I'm looking for a color company which has a bit of fund available."*

The only difference between perceptions from companies-users and OBNP of companies' needs in networking was that companies-users distinguish between international expansion and new market creation. From OBNPs' perspective this need sounds like expertise and support from international partners. The perception of the rest of the needs was the same.

4.2. Ways of networking

All the companies-users except one (Mahama's VR&Co) interviewed stated that they network in both ways – offline and online. Mahama's VR&Co stated*: "Since one year we are networking only online"*. The company explained that it needs experts like medical and science consultants from abroad since the company is situated in Bulgaria and there is a lack of these specialists, so it finds and interacts with other partners via the Internet only.

The ways of offline networking mentioned by the companies were the following (sorted by frequency in descending order) (also see Figure 7):

1. Networking meetings, events, conferences, trade shows, etc.;
2. Via professional relationships – references from current partners, clients;
3. Via personal relationships – references from acquaintances;
4. Via family;
5. Physical official letter to CEOs of companies with additional attachments. Like portfolio, specifications, etc. (**but**: with an electronic version of this letter by email with necessary Internet links);
6. Via accelerator program;

7. Via networking agency.

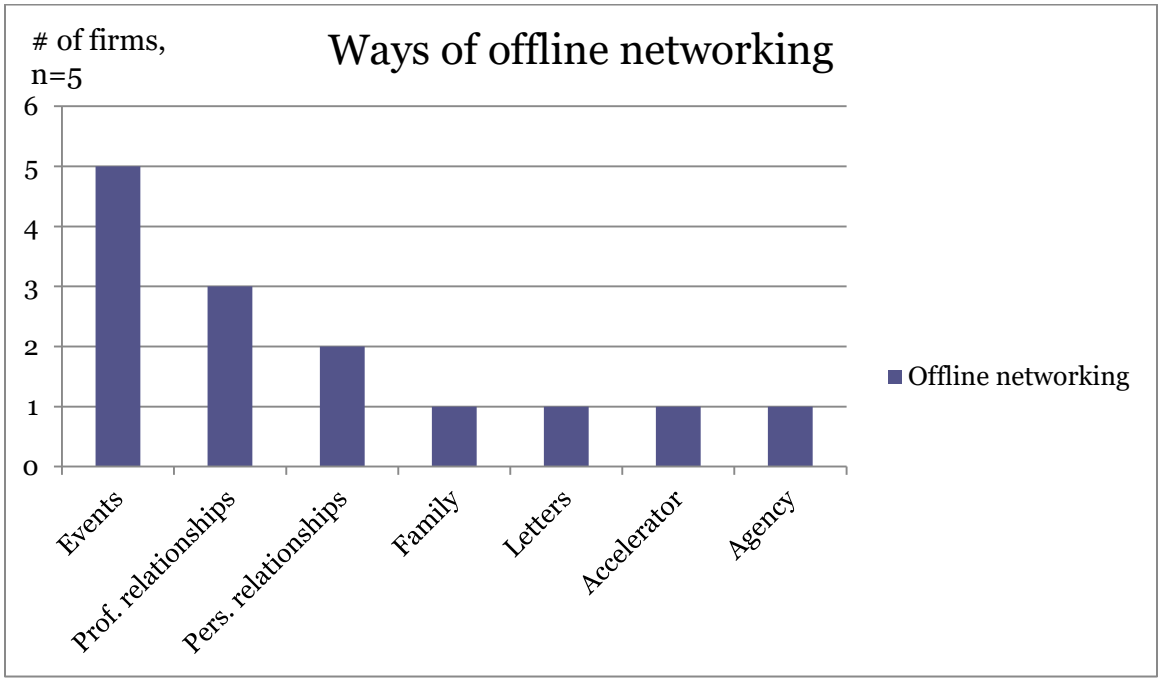

Figure 7. Ways of offline networking

The ways of online networking were the following (ways are sorted by frequency in descending order (also see Figure 8)):

1. Online social networking websites (e.g., LinkedIn, Xing, Facebook, Twitter);
2. Emails, phone, Skype, Viber;
3. Via search engine (e.g., Google) to find contact details and then by email, phone, etc.;
4. Industry specific websites (e.g., BBI, Photonic Austria, Technology Exchange, Non-destructive Testing platforms, VR funds (work in the same manner as anOBNP));
5. Via company's website – via a contact form or contact details on a website.

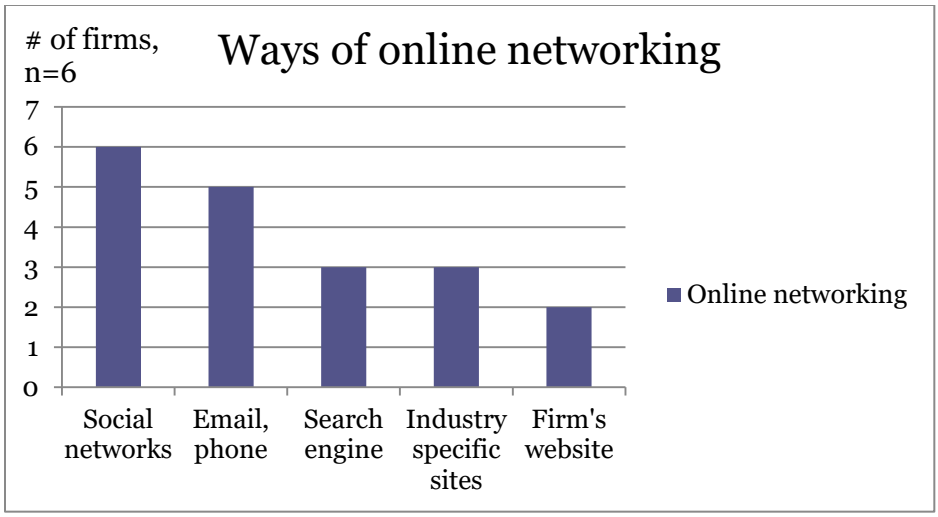

Figure 8. Ways of online networking

Half of the companies stated that online networking goes first as a first contact/interaction point and then offline networking. Mahama's VR&Co said: "*Something very important for me that I want to mention – even if you want to meet someone in person, you still make research [about another company] online before the meeting, you still do it, it is again double time wasting. Because, for example, I have a request from Dubai and I don't know this company and I'm making the research online anyway. So, even so, I meet them online or in person [they met online], I took this time to make a research online. So online you cannot skip.*" Other participants said in the sense of "*online is a consequence of a physical meeting*" - SeqOne.

Furthermore, companies mentioned that they don't make a big distinction between fulfilling different needs by particular ways/methods of networking. The distinction is only concerning needs that include collaboration with international partners or big distance in between since to accomplish these needs online is cheaper, faster, and more efficient than offline. For instance, SpellAfrica Initiative mentioned: "*I'm currently in Paris. If I need information about someone in Australia then online will be the best for me, because then I don't have to travel to Australia. I simply check and connect to a person online.*"

4.3. Advantages and disadvantage of offline and online networking for the companies

Companies interviewed mentioned the following **advantages of online** networking (presented in descending order (also see Figure 9)):

1. It is low cost or cost efficient – it helps to save money for a company in terms of it is free or low costs and no money spent for traveling, accommodation, entrance fee, etc. Also what is mentioned in the online article "Advantages of Using the Internet for Business" that available information at faster speed saves money for a company (Henderson, 2017).
2. It gives a possibility to know other people "by chance"; also it is a real wider reach out of new people – the people that a person might not meet in real life or outside of its sphere. For instance, RECENDT said: *"Those online platforms are **only chance to have a chance** to get in contact with those people who might be interesting."* It is also mentioned in the online article "Advantages of Using the Internet for Business" (Henderson, 2017).
3. It provides better access than offline networking – access for everyone, from anywhere, and from any digital device like a smartphone, computer, and tablet; moreover, it is available 24/7.
4. It is easy, low effort, quick, and efficient – it is quick because it helps to save time in terms of finding and contacting, moreover, it is easy to use (intuitive). For instance, RECENDT said: *"I can choose how much effort I put to this network from my side, if I scan it, if I really try to find contacts and address contacts."*
5. It gives an opportunity for better preparation before contacting companies. The preparation includes deeper research about another company that increases the chance of response and help to gain good reputation and trust from the very beginning. Marktreif.berlin said*: "You can screen profiles before making contacts (get a first and, if you want, the deep impression of your counterpart through additional research)."* It is also called "break the ice" before meeting someone in person, according to online article "Advantages to Online Networking" (Advantages to Online Networking, 2017).

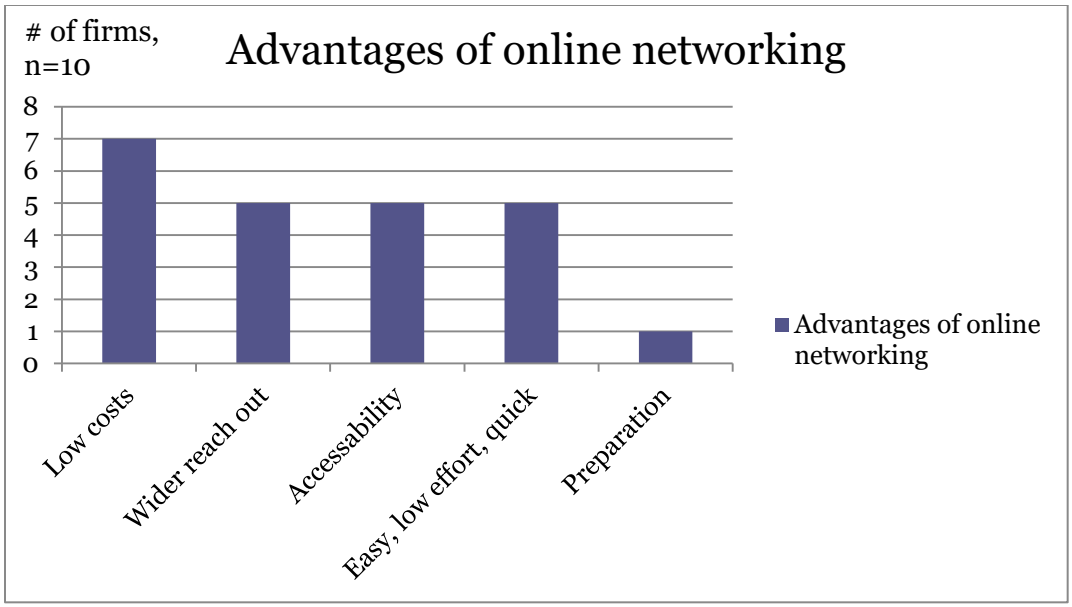

Figure 9. Advantages of online networking

The following **disadvantages of online** networking very mentioned via the interviews (presented in descending order (also see Figure 10)):

1. Absents of non-verbal communication (or limited in the case of calls) makes it is difficult to understand the attitude of the interlocutor.
2. May cause communication failure (except online meetings) due to the fact that a conversation is not simultaneous and less personal (e.g., misinterpreting, misunderstanding), also it is difficult to present information in a precise and understandable way. For example, RECENDT said: *"There is always will be a potential mismatch - what he thought, what he wrote, what he read, what I see, what I read, and what I interpret."*
3. There is no one online networking platform that meets all the needs, that's why it is necessary to maintain different profiles on different platforms, that requires more effort and time (in the case of premium account – costs increase).
4. More difficult to build trust.
5. Time zones (in the case of online direct contacting) should be taken into account – that may cause inconvenience and lag in responses in the case of long distance.

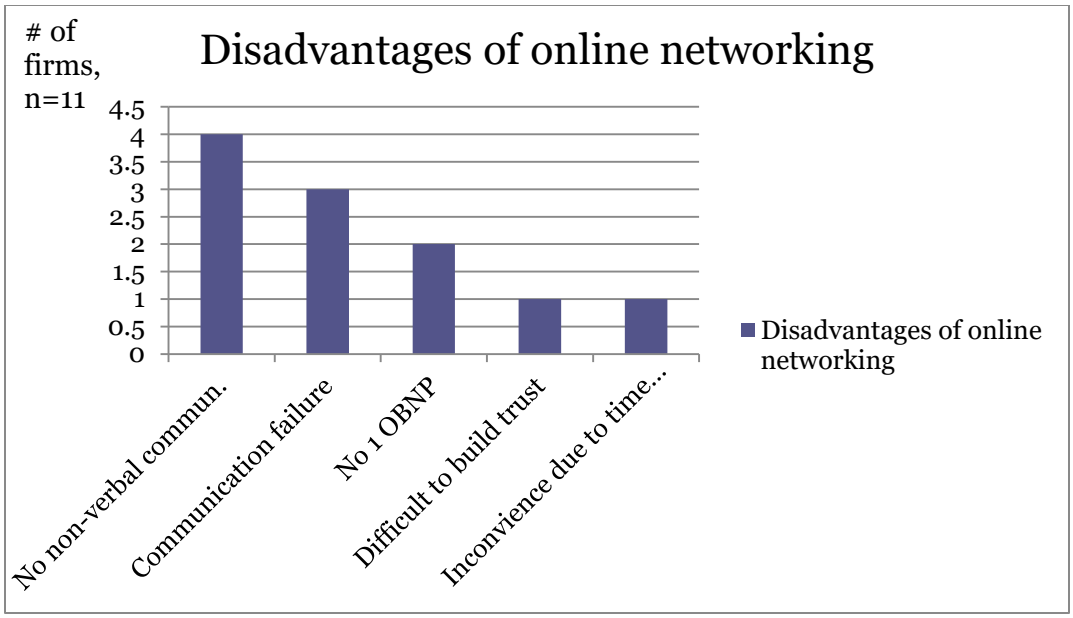

Figure 10. Disadvantage of online networking

The following **advantages of offline** networking were mentioned during interviews (presented in descending order (also see Figure 11)):

1. Face-to-face conversation is more intuitive and natural because of non-verbal communication - it is possible to see and feel if another person is interested or not. For instance, Attestation Legale said: *"Face-to-face contact is more intuitive, you can exchange, you can have a much easier conversation, and you see and feel if the other person is interested or not, much more natural."* Also, Marktreif.berlin stated: *"Personal (offline) networking is priceless and relevant to build confidence and economic relationship"*.
2. It helps to raise trust easier than during online networking.

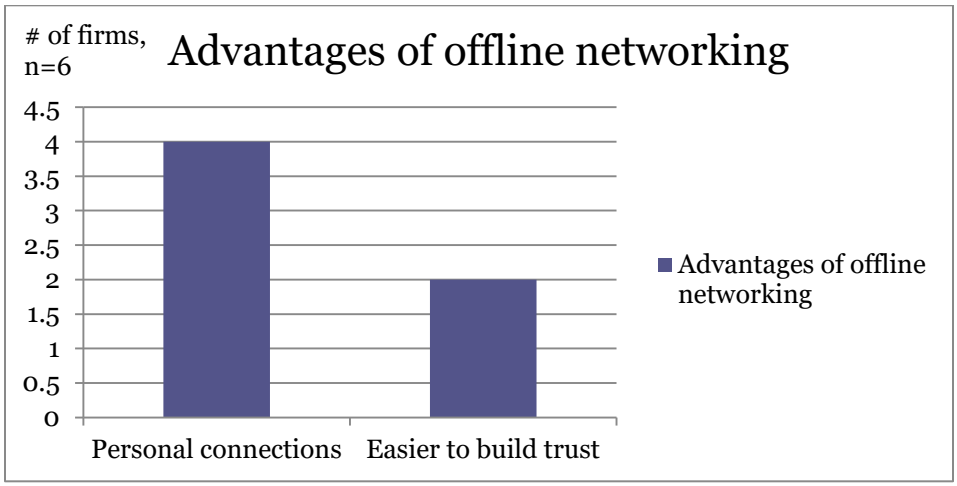

Figure 11. Advantages of offline networking

Disadvantages of offline networking that were mentioned via interviews were the following (presented in descending order (also see Figure 12)):

1. It costs money – for traveling, accommodation, entrance fee, additional related to participation in offline networking activities costs.
2. Offline activities are limited to certain people who are present.
3. Offline activities are not available 24/7 or from places different from a venue.
4. It has a specific location and time – that constraint personal ability to be there. For example, RECENDT said*: "Online tools come into a play as I'm not able to be in all events all across the globe, so I have to have a profile there and take the chance to present my company and our work on a platform."*
5. It requires time (e.g., for traveling) and preparation (e.g., screening a list of participants and contacting them to make appointments during networking meeting).
6. It requires traveling – all the inconveniences that connected with traveling (e.g., visa issues, leaving a family, different country (culture, language), stress, etc.).
7. Via offline networking activities "*more self-confidence is needed to get in touch*" – Marktreif.berlin.

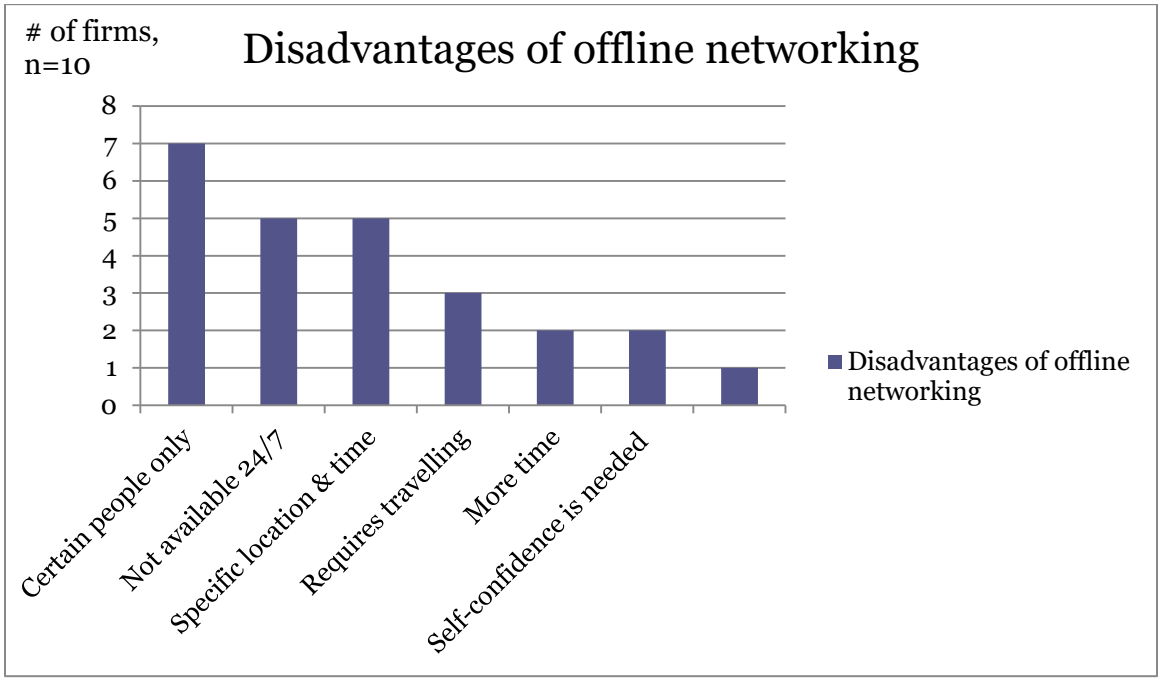

Figure 12. Disadvantage of online networking

Even if the interviewees mentioned more disadvantage of offline networking than advantages, most of them highlighted that the weight of the benefits from offline, like building personal relations and trust, is really relevant and important and in some cases is even bigger than all the advantages of online networking.

Moreover, it was mentioned that online it is easier to maintain networks than initiate contact. For example, SeqOne emphasized: "*Human touch is really important. We need to see people, the human factor is difficult to capture in online tools, it is hard to initiate networks through them, it is much easier to maintain through them.*" But from the perspective of Mahama's VR&Co online networking with a web camera and sound can replace the "human touch": "*If I can meet them [potential partners] online with a camera and with sound, I don't see any difference to see them in person and see them on camera. I know*

that it is important for other people, but this is for me, I'm an NLP therapist and I can tell things even that way."

To sum up, taking into account all pros and cons of online and offline networking, 91% of the responded companies stated that online and offline networking complement each other. For example, NjangiList said: "*You stay online and you do offline activities and you come back online. Because you use all digital methods: e-mailing, Skype, etc. Both stay together, they complement each other rather than substitute. You cannot just take it offline, because of the distance. Distance makes you stay online.*" Also, Marktreif.berlin stated: "*It [online networking] can complement and facilitate face-to-face networking (you get to know someone at an event and keep in touch, or online networking could be the door opener for face-to-face networking (especially for small enterprises).*"

4.4. Comments for the research model

Regarding the research framework, there are a couple of adjustments to the research model appeared after empirical research which are going to be discussed in the section.

Concerning the **three stages of networking** from the research framework - searching and finding; selecting; and contacting – in general companies agreed with them, but was mentioned that sometimes it depends on the situation and the "Selecting" stage II may be skipped.

One of the interviewees said that for him there is no such stage as stage II "Selecting". Namely, Attestation Legale said regarding finding partners for testing and developing (customizing) the product (software) for the German market: "*I have my big list [of interesting companies]. I try to contact all of them, because I know if I have a list of 50, I get maybe three meetings out of it. So I have to contact all of them. I get through maybe 10-12 of them and five of them say: "Sorry, we are not interested" and 3-4 say: "Tell us more" and then they say: "No, we are not interested", and then you have 2-3 meetings. So I cannot say that these are the most interesting contacts, because if I call only 2-3 companies, then I have nothing. And sometimes it is quite surprising - you think: "Ah, they are probably not the right one", but these are the ones who agree. You have to send out as much as possible and then to see what do you have back.*"

Two companies definitely agreed with the three stages of networking as it is presented in the research framework due to the fact that they have a strict list of criteria for companies that can be potential partners. For B. Toussaint that is due to the specifics of the technology (innovative 3D varnish technology) and for SpellAfrica Initiative - due to the mission, interests, and position of the company.

One interviewee offered an additional stage – stage IV "*Confidence and economic relationship building*". Marktreif.berlin said: "*I think networking does not end with contacting. Now companies have to build confidence and economic relationship ("get to know each other"). To do business means to confide in each other, therefore, you have to invest time (and money) to step from contacting to doing (trustful) business.*"

Concerning factors/reasons of using online or offline networking in general interviewees agreed with the factors, but some of them proposed new factors or highlighted the importance of some other factors for a specific stage. The relevant information is presented below.

Starting with the **stage I - "Searching and finding"** about the "Costs" factor Attestation Legale said: "*Today I have no restrictions in terms of travel, I don't have a limited budget. But I know from the previous positions that sometimes times are a bit harder and the company says: "You have to stop traveling" or set travel restrictions, etc. Obviously, it would make a difference. For example, they would say: "No more than one trip per month".*"

Regarding the factor "Speed/time spent" NjangiList said: "*Regarding online networking - you find a company and you follow up, it can take something between a day and a few weeks, but offline something about month you try to contact them, you negotiate and make a proposal and get a feedback on your proposal. It takes more time compared to online.*"

Regarding the reason for choosing online/offline networking – matching a company to another company, interviewees said that the borders are blurred and this factor is not so important because online on an OBNP can be a system to match companies (like filters, a special artificial intelligence's (AI) algorithm, etc.), nevertheless, offline before and during an event a special B2maching application is available. Company X said: "*Before a networking event, like a month before, we create a platform - B2match software - for uploading a profile (short description of a company and a person who will be present, collaboration type the company is looking at this event, etc.). After that, they can start to look at each other profiles and choose companies to meet with during the event and arrange meetings.*" SpellAfrica Initiative stated: "*Online and offline give me the same results, for me no big difference*."

Concerning the factor "Availability of information about a company" EuroQuity stated: "*Potentially they [companies] can have more information online because on the website's profile (it depends on the company to complete it or not) - they can upload documents and make it accessible to whom they want (it is possible to make it accessible only for certain groups of people/companies managing restrictions). During offline events, it is difficult to share information or videos.*"

One more factor that was added is "Human resources" – the choice between online or offline networking depends on the size of a company and how many people are involved in the networking process.

Regarding the **stage III "Contacting**" the "Costs" factor B. Toussaint said: "*My company is small and the next problem is that if they [potential partner-company] want to meet me then I have to travel and I pay from my own pocket*."

One of the interviewees highlighted that it is easier to overcome cultural differences (in terms of perception of information, communicational habits, language barrier, etc.) online because online it is easier to interact with people by sharing images, videos, using translators, etc. NjangiList said: "*It is easy to interact online among all of the users. Also, we have to consider that we have cultural differences. We are providing something [OBNP] what users can understand in terms of technology and also in terms of cultural context because someone in Africa uses the information, but they don't think like someone from the West."*

The factor proposed by B. Toussaint "Technology type" is important on the stage III "Contacting" due to the fact that "*Since my technology is complex and new, it is really difficult to understand by writing it down and reading the text. When I'm talking by phone with someone they can understand at least a half. When I speak with people directly on the table, then they can understand.*"

By one of the interviewees, it was mentioned that factor "Trust" is important on stage III "Contacting". SpellAfrica Initiative stated: "*For me offline is better, I will definitely trust someone offline, because when I meet you offline, I have seen you, known you. There are certain things that I will not know if we meet online. After I physically see a person, I can make a decision to trust someone or not. But I don't want to trust someone whom I meet online because there are so many negative things that have happened on the Internet in the past*."

New factors/reasons that were proposed by the participants of the interviews are the following:

1. Half of the interviewees proposed – "Distance" in terms of costs (traveling, accommodation, entrance fee, etc.), time spent (for traveling, for an event, etc.), and traveling (stress, visas, leaving families, etc.).
2. One interviewee proposed the factor - "New ways of (digital) communication and the trend of the digitalization of working sphere" (hereafter "New trends")
3. and "Generation" (i.e., generation type - X/Y/Z).

Interviewees stated that these factors are important on the each stage of the networking process.

IV (2) About OBNPs

4.5. How OBNPs fulfill the companies' needs in networking

The main and the biggest aspect of an OBNP in terms of fulfilling the companies' needs in networking is that an OBNP creates a space and opportunity for companies to find each other and to initiate a contact. Moreover, an OBNP gathers companies from all over the world in the same online place and provides tools for easy interactions and as additional opportunity - to learn. By communicating, sharing, and learning companies find ways how to make these connections beneficial for each other and how to fulfill their needs. In addition, some OBNPs provide additional information, articles, and news and send newsletters, etc. about new technologies, trends, grants, etc. that makes companies-users be updated and inspired with new opportunities for business development and collaboration. Furthermore, some OBNPs provide additional teaching, trainings to the companies that enhance companies' competencies. In other words, an OBNP doesn't fulfill the above-stated companies' needs directly, but it enables, gives all the necessary tools, and enhances collaboration for accomplishing the needs.

In Table 5, how the platform-providers, participated in this research, fulfill companies' needs in networking is presented. The needs are shown according to the companies' needs derived from the theory and empirical study.

Table 5. Companies' needs in networking and their fulfillment by the OBNPs

Companies' needs in networking derived from the theory	**Companies' needs in networking derived from the empirical research**	**How platform-providers fulfill these needs**	**OBNPs which fulfill these needs**
Access, sharing, and development of knowledge and expertise	Product/technology development and co-innovations; International expansion	- provide access to a big amount of various gathered organizations and experts (e.g., SMEs, startups, universities, research institutions, corporations, investors) from different countries; - categorize organizations and experts according to industries, interests, partners' requests, regions, etc.; - for better navigation provide filters and a search by keywords, recommendations of potentially	EuroQuity, NjangiList, Marktreif.berlin, Enterprise Europe Network, euMatch
New product development			
Expanding an area/amount of innovations			
New ideas and seizing opportunities			

		interested organizations based on matching algorithm; - for a better selection of potential partners provide space for posting all necessary information about an organization such as a description of a company, products/services, technologies, etc., a space for additional information like videos, pictures, portfolios, documents, etc.; - for initiating the contact, facilitating interaction, and sharing provide special tools such as a contact form, chat, forum, personal contact details of employees or link to their social network profiles; - organize companies-users around communities by industries, requests, etc.; - provide a personal expert (human) support in regards to companies matching	only EuroQuity only Enterprise Europe Network and euMatch
Access to new markets and establish a unique position there	International expansion; New markets (not traditional) creation	- provide access to big amount of various gathered organizations from different countries; - for initiating the contact, facilitating interaction and sharing provide special tools such as a contact form, chat, forum, personal contact details of employees or link to their social network profiles	EuroQuity, NjangiList, Marktreif.berlin, Enterprise Europe Network, euMatch
Strengthen reputation Provide marketing	Increasing visibility, transparency, brand recognition, reputation, and promotion of a company	- provide space like mini-websites or profiles of companies and their employees; - implement rating or review systems from other users of the platform that boosts visibility on a platform and reputation; - implement Search engine optimization (SEO) that provides	EuroQuity, NjangiList, Marktreif.berlin, Enterprise Europe Network, euMatch only EuroQuity, NjangiList only EuroQuity, NjangiList,

		higher appearance in search engines that means additional marketing for companies-users. That also reduces costs of the companies for marketing, PR campaigns, and maintaining an own website	Marktreif.berlin, Enterprise Europe Network
Learning	Learning	provide space for sharing and discussing information	Under construction in NjangiList

Some of the companies' needs in networking that were discussed in the theoretical part were not discussed during the interviews, that's why they are not included in Table 5 (namely, "Providing added value to customers", "Expand customer base", "Increase sales and profitability and reduction of overhead costs", and "Set up distribution networks and supply customer service").

However, there are two needs in networking that were discussed during the interviews but not in the theoretical part (namely, "Business growth" and "Be part of a community"). The "EuroQuity" and "NjangiList" platforms fulfill the need "Business growth" by providing a possibility for companies-users to post requests for investments or job offers. Since, according to these platform-providers, growth cannot be without additional financial and human resources. Herewith, the "Business growth" need was indirectly addressed in the theoretical part but not with the same meaning as during the empirical research. In the theory were discussed the "Expansion of customer base" and "Increase sales and profitability and reduction of overhead costs" needs that lead to business growth. Moreover, EuroQuity platform accomplishes the companies' need "Be part of a community" by organizing communities by interests, industries, etc. and enhancing interactions among their members, also by organizing offline events for these communities.

4.6. Improvements for online networking

Interviewed companies-users after self-evaluating their user experience of online networking suggested improvements. Furthermore, managers of OBNPs were self-critic regarding improvements for their platforms and online networking in general. The suggested improvements are the following:

1. Online technology in general such as speed, user experience, less Internet data consumption, offline access to networking platforms, open public access (without registration but with limited access).
2. Providing tools for increasing trust - it can be implemented by checking companies' profiles, rating and review systems, increasing data security of networking platforms, etc. Marktreif.berlin said: "*I think you have to pay attention to identity theft (e.g., social engineering) and data security. Online networking should be safe and reliable.*"
3. Providing and promoting direct communication via implementing features for contacting directly from a platform or contact details of a responsible person from an organization, online direct chats with the possibility to share documents, images, etc.; online calls with web camera and microphone for a group of people. It makes interaction easy and more personal.
4. Improving searching and matching system among companies that will increase the time for searching. RECENDT mentioned: "*I'm sure it might be possible to improve the search. Companies like Google they know what you want to search when you just start to type it*."
5. Increase the quality of information available about other companies – up-to-date and accurate.

4.7. Reasons why there are not many OBNPs available and/or they are not successful

Since the market is still under development, platform-providers are trying and doing new things which are also discovered along the way. Thus, OBNPs face variety of challenges on the way of their development. Some platforms cannot overcome these challenges and quit. These challenges are the reasons why so far there is no single famous and successful OBNP.

First of all, it is difficult to acquire a critical mass of users after which a platform is attractive or mandatory for companies. The critical mass should be reached in a short time, otherwise companies that register first will lose the interest and it will make the platform less attractive for the next users. Marktreif.berlin explained: "*Some of them [organizations] have their own (often smaller and limited) networks. And others have no time, interest (or different interests) or no personal/financial resources to publish their competencies/profiles.*" Furthermore, it is problematic to keep balance among different groups/types of companies-users and keep a platform relevant for everyone, for example, who are publishing requests for partners and who are looking for partnership.

Secondly, it is difficult to overcome disadvantages of online networking that were presented in a previous chapter, like less natural and intuitive and trust issues. SeqOne explained: "*Networking is about affinity, there is a human aspect in it. Networking is between people,* ***effective*** *networking is between people, not between companies/entities*".

Thirdly, based on the case study of the "dead" OBNP "Biznik" the financial aspect of company-OBNP is very important as for any business. Co-founder and CEO of Biznik - Lara Feltin – explained that OBNPs have to find investments or to have a business model that will provide enough money for business maintaining and development. Nowadays the most popular business model is Freemium[8], but for having enough profit for self-financing a high amount of premium users should be reached quickly. This challenge has a strong connection with the challenge of critical mass (Feltin, 2015).

The last challenge that can happen in any businesses as well as in OBNP-company - management conflicts among founders and management board. That provides challenges for the management team to work on the business with full potential (Feltin, 2015).

[8] Freemium business model is a business model that provides free access to online software but with limited functionality. For premium functionality users have to pay a subscription or access fee.

V. Discussion

This section discusses the results of the theoretical research and empirical study. It explains meanings of the findings and analyzes them based on the theoretical input.

The research topic of this thesis was to investigate the needs of companies (SMEs and startups) in networking (online/offline networking) and to investigate how online business networking platforms can accomplish these needs.

Regarding the **needs of companies in networking**, interviewed companies confirmed the list of needs that was derived from the academic literature, such as needs in product/technology development, expansion to foreign markets, learning, business development and growth. Interestingly, one company mentioned such need in networking as "To be part of a community" (a network) as a need per se. Being part of a community brings a feeling of belonging, security, and familiarity, this is a space for personal relationships (McMillan & Chavis, 1986). This ensures increasing of commitment that brings trust. That was mentioned as important advantages of offline networking. Nowadays such communities can be in real life as well as online. By organizing users of an OBNP in online communities and giving them high-quality tools for human touch (like web cams and microphones) online way transcends boundaries of distance and gives more opportunities and benefits for its users. Since online networking gives a chance to exit limits of being in the same bubble all the time and reach out, there are unexpectedly valuable results of networking.

Companies' needs can be fulfilled by various **ways** of networking offline and online how it was described in the theoretical part and confirmed by a practical world. As it was mentioned during interviews, currently, companies use all the methods of networking that might bring them results without separation by specific needs. Moreover, it is difficult to separate and make limits where offline networking ends and online starts and vice versa. The choice is determined by personal preferences or companies constraints (e.g., budget, human resources, time, etc.). That can be a result of a weak networking strategy or a habit to use only particular networking method. Also, it can lead to a challenge of being involved in many networking activities simultaneously and maintenance of contacts – what makes constraints to receive significant benefits by disseminating attention and effort. Another explanation is that the perfect way of networking does not exist yet, which is why companies have to use all available methods to achieve their goals. These reasons can justify the fact that online and offline networking complement each other.

Answering the question **how online and offline networking complement** each other it should be explained by using stages and factors discussed in the research model. On the stage "Searching and finding" online networking is more efficient and beneficial than offline. Companies engage in online networking rather than in offline networking definitely in the cases when there is a need for international partners since distance is a barrier that leads to an increase in costs and money spent and the online way provides unlimited access from any place at any time to a huge amount of organizations (potential partners). Moreover, companies will willingly use online networking in their work when AI algorithms for intelligent matching will be used since they can search and analyze more data in shorter time with higher quality. Furthermore, as it was mentioned by the companies during interviews even for offline networking events online research about participating companies should be made to reach better results during real life events. Also organizers of offline networking events use online tools, like B2matching apps, to connect their participants before offline events.

However, offline networking is more beneficial for companies on the "Contacting" stage since human touch is essential for establishing partnerships. Moreover, it is easier to trust other companies when

personal connections are built. For instance, Marktreif.berlin said: "*After the first call or e-mail and reconciliation of interests and capabilities between the companies, you have to do the next step of contact which has to be face-to-face so that cooperation partners can build a deeper and trusted relationship*."

To conclude the answer, in general the optimal networking process should consist of online networking on the first stage, offline and/or online on the second, and offline on the third stage, but single factors should be also taking into consideration. If distance is bigger, then costs are higher, in this case, online networking is rational to use because it is provide access without any limitations. If it is important to have a variety to choose from (scope) then online networking provides access to more potential partners, moreover, it can ensure a link between criteria of request and result of the search. Also for Generation types Y and Z it is natural to use online networking over offline, however, for Generation types X and Baby Boom – offline networking, because they have used this way for long time and they used to it. When trust is important for establishing a contact (trust in networking tool and in other companies which use this tool), then offline networking works the best.

An interesting issue occurred in the interviews regarding difficulties to find an innovative business partner. The roots may lie in the low response rate and willingness of other companies in collaboration. This problem can be easily overcome by effectively using OBNPs (in the case of OBNP implementing all the necessary features for successful networking and work actively) since on OBNPs companies which are interested in finding partners are registered. Therefore, all these companies are willing to network. Other explanation may lie in the specificity of an industry in which a company operates or in its particular product/technology.

Another interesting question may be - how similar or different networking and online working are (i.e., virtual team works). Regarding the definition of virtual team, Powell et al. define it as "*a group of geographically, organizationally and/or time dispersed workers brought together by information and telecommunication technologies (ICT) to accomplish one or more organizational tasks."* (Powell, Piccoli, & Ives, 2004, p. 7). Even if online networking and virtual teamwork may have similar important aspects/paradoxes like personal relationships (physical presence), social interactions, and trust, and use ICT as a mean of interaction, these are the two different concepts which are difficult to compare. The main difference lies in the definition – virtual teams are the teams that have common organizational goal(s), since in online networking a common goal is not identified yet, online networking is about establishing the relationship, moreover, the networking process ends before actual work on a defined organizational goal starts. It is suggested to take into account paradoxes of virtual teamwork and strategies for overcoming them when companies agree to form an alliance and plan how to manage the alliance (Powell, Piccoli, & Ives, 2004).

Regarding networking goals, **OBNPs can** definitely help companies-users to **accomplish** every particular **goal in networking** by providing access to new information, expertise, and learning. They help companies' users to obtain and seize new opportunities and build new business relationships. Furthermore, they reduce information asymmetry and provide financial benefits in terms of costs and time reduction. There are various tools and features that platform-providers have implemented already or are in a process of implementation in order to help companies-users network online productively.

Online networking has a lot of potential, but for now, it has a lot of **challenges**, in trying to substitute offline networking and out-performing it. Firstly, technology is not fully implemented for OBNPs like global access to the Internet, speed and its quality, possession of electronic devices and usage of AI. It can also have its root in countries' economies (how developed a particular country is). Moreover, the generations have to change each other since generation Y has a closer contact with technologies and

society digitalization than generation X and Baby Boom (it is still a labor part and managerial as well and mostly they are not heavy users of the Internet and are not used to new technologies), but generation Z explores the full potential of online networking due to their characteristics (such as technology is completely integrated in their daily and working life).

Regarding the **research model** derived from theoretical research, the empirical study confirmed the model in general and provided some refreshing insights.

New factors that were proposed by interviewees such as "Human resources" on stage I "Searching and finding"; "Trust" and "Technology type" for stage III "Contacting", as well as "Distance", "New trends", and "Generation" for all three stages which influence the decision of using online or offline networking can be accepted because they are relevant and significant. The proposed new stage IV "Confidence and economic relationship building" goes beyond this research due to the fact, that the networking process was limited at the beginning of the research to initiating and establishing the contact. Confidence and relationship building is a large area of the research which was not investigated here.

The new factors "Human resources" and "Technology type" are ranged in the group of factors from a company's side because a company determines how many employees can be occupied by networking and a company determines a technology type.

The new factors "Generation", "New trends", and "Distance" don't belong neither to factors from an organizer's side nor to the factors from a company's side due to the fact that neither of these two parties can influence on the factors. They were range in a new cluster – "Factors from environment's side" since they shape the surroundings and conditions in which companies and organizers operate.

The proposed factors were not covered by the theory due to the following assumption. Factor "Distance" can be dissociated on such aspects that are already included in the framework like costs and time spent (for traveling). But it also may add a value for including it since distance includes traveling and related inconveniences that now are not included in the framework, such as time zones, stress, and language barrier. Moreover, since international collaboration is increasing, the factor "Distance" becomes more important for companies.

The "Generation" factor goes together with "New trends" and they form the working environment in which companies use online or offline networking. Since nowadays new trends of digitalization and new technologies appear and are adopted by society really quickly they should be taken into account.

The "Human resources" factor may be also included in "Costs" factor, since more people cost more money (salary and budget for networking activities for each additional employee), but it adds value if think about how many employees are really involved in networking as a part of a job and their decisions in ways of networking. Since sometimes networking is not included directly in job responsibilities, but an employee has to do it in order to reach the working goal.

Interestingly that the "Technology type" factor was proposed on the stage "Contacting" reasoning that by reading information it is difficult to imagine what is possible to do with this technology. So the possible explanation may be using videos/pictures or more accurate description of the technology is needed. Otherwise, it can be a case of disruptive technology, then possibly "Product/service type" factor is also important for choosing between online and offline networking.

The added factor “Trust” to the stage III “Contacting” may be possibly explained by the fact that during the first interaction with a potential partner it is important to establish comfortable and trustful relationships from the very beginning and the “Contacting” stage is the first point of interaction.

During the theoretical and empirical research, attention was not focused on measuring the “weight” of each factor; nevertheless, this topic was addressed and discussed here and there. Without quantifying the information it is possible to conclude that the following factors have the most weight comparing to other discussed factors: costs, distance, scope, and accessibility.

The factor “Costs” has influential position when companies choose between online or offline networking activities, since they try to maximize cost and effort efficiency. When investing money and time in networking, it is crucial be sure that it will bring the best results. The next factor - “Distance” – is connected to the “Costs” factor due to the fact that geo location of companies and networking events determines the costs of participating in it, as well as time spent. Thus, when choosing between participating in online or offline networking activities a company consider distance and related costs is the second priority factor. The factor “Scope” is important in regards to how many companies’ representatives can a company potentially find and contact in a certain period of time online and offline. Furthermore, how many out of them are new companies (never had a contact before) since networking online platforms and events are focused on finding new (previously unknown) partners. The “Scope” factor is also linked to the “Quality of matching” factor because amount of companies available determines matching results. The last but not the least factor “Accessibility” is substantial for companies due to the next reason. Nowadays it is crucial to have access to networking tools at any point of time and from any place and not to be restricted but location, time or costs in order to seize opportunities.

The new model adjusted by empirical research is presented in Figure 13 (the new factors are in red boxes).

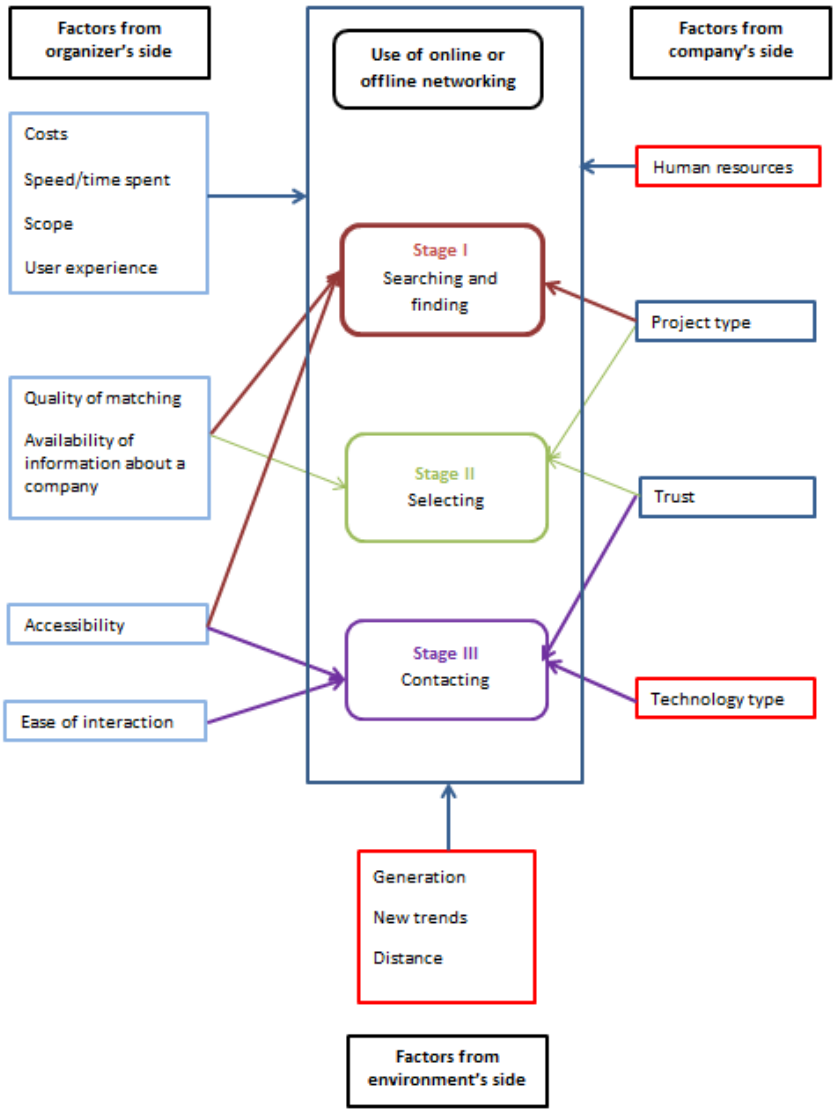

Figure 13. Adjusted research model

Interestingly, new factors that were added to the research model are from company's side or environment's side. It can be explained that the theory focuses more on the technical side of the networking process and the factors are under control of those who organize and manage networking activities (online or offline), for example, such factors as costs, user experience, and scope are discussed frequently. But the theory overlooks the practical perspective of companies-users of networking, such as human resources factor. Furthermore, it doesn't consider changes in the environment – new digital trends and generation. However, it is critical to have a broader outlook and to see the whole situation for evaluation and prediction of its future development. The researcher thinks that in the future online networking can easily substitute offline networking on the first three stages that were discussed. It will happen when generation Y and Z will form the majority of labor or management and when the digitalization will be more advanced (like AI is wide used). It could happen in 5-10 years. Since online networking can provide better quality of networking in less time and less money. But this assumption requires more research on the company's side and on the environment in which it operates.

VI. Master's thesis contribution

6.1. Theoretical contribution

This master's thesis contributes to the academic literature on networking in the following ways. Firstly, it contributes by providing information related to the companies needs in the process of finding new business partners with the aim of co-innovation and collaboration. The list of the companies' needs in networking was added two new needs (previously not mentioned) – "Be part of a community" and "Business growth" (i.e., in sense of external investments and talents).

Interviews with SMEs and startups revealed a broader picture of the current situation on how companies perceive online and offline networking. Namely, what ways and methods of networking they use in daily working life and what the benefits and drawbacks of offline and online networking for them are. The advantages and disadvantages of particular method help to see the real life perspective and shortages and the avenues for further research and development.

Besides that, the thesis's contribution is an empirically studied framework on factors/reasons that influence companies' choice of using offline or online networking. Specifically, the new factors that were added after the empirical study. Namely, the whole new cluster "Factors from environment's side" which includes such factors as "Distance", "New trends", and "Generation". That brings additional value for the theory since it provides a new perspective from the outside of companies-users and organizers of networking activities known perspective. This provides a new insight and track for the further research.

Moreover, new added factors, such as "Human resources" and "Technology type" from the company's perspective, give an opportunity to evaluate deeply the networking process from the companies' point of view.

Furthermore, the study provides an empirical analysis of the online business networking platforms. Specifically, analyzing how these platforms can meet the needs of companies in networking and possible reasons why there are only few OBNPs and they are not world-wide known. That helped to contribute by providing a list of suggestions of possible improvement for OBNPs.

In sum, by synthesizing companies needs in networking, factors influencing the choice of the networking methods, and capabilities of OBNPs, this master's thesis offers new knowledge on how and when online networking can do better than offline networking and what OBNPs have to do in order to substitute offline networking on the first stages of the process.

6.2. Practical contribution

This master's thesis contributes to a practical world by increasing companies' awareness of different aspects of the networking process, such as actual needs in networking, what are the ways of fulfilling these needs, what is the state-of-art of online networking and how companies can benefit the best from online business networking platforms. Two perspectives – users of OBNPs and OBNP managers - were analyzed and as the result recommendations for companies which currently use or plan to use OBNPs in their work for finding new potential innovative partners for collaboration and for managers of OBNPs are given. Following these recommendations, it is believed that companies-users boost the efficiency of online networking and get more fruitful results and managers of OBNPs create and develop an online networking tools that will be used all over the world and famous and active like Facebook for social networking.

In addition, a list of existing and active OBNPs with a short description is provided as a supplementary help for companies, thus they can choose a proper platform according to their requirements and interests (see Appendix 4).

Recommendations for companies-users of OBNPs

The recommendations are introduced as logical steps from the beginning of using online networking in a company's routine till using it in a full manner. The most critical suggestions are highlighted in bold.

1. From the very beginning **determine a clear networking strategy**, i.e. what are the particular needs in networking; what is the final goal; what are the possible and most efficient ways of fulfilling the needs; determine how much effort, time, and money it is possible to invest in networking. That provides a well-thought design and increase benefits and results for the company.
2. In the case of choosing online networking as a main tool of networking, it is necessary to determine particular platforms that suit most the networking strategy and focus on few of them. That will provide an opportunity to invest more effort what will bring higher quality results comparing to the case of being present in many platforms but not maintaining the profiles.
3. **To take care of companies' profile** is really important. A description of a company should be short, but precise and contain all the necessary information, better to use videos and pictures to explain complex things about products/services or technologies on which a company is working. If it is needed to attach additional files/portfolios for giving a deeper explanation of the work/projects, then be sure that the information is accurate and relevant for the potential partner and well organized. The information should be in English as the main language if it is necessary then in the original language as well. If a company has a particular partner/project/technology request or an offer it is better to make it visible and understandable on the platform. Some OBNPs provide separate sections for requests and offers. It is very important to keep these requests/offers up-to-date that will increase the quality of interaction with potential partners and decrease irrelevant emails.
4. **To publish on a platform in a company's profile contact details** (name, position, email, phone number, and photo) of a concrete responsible person, also it is better to have a link to a profile in social networks, for example, LinkedIn. That will increase the reachability of the company in case of a business opportunity offer from another company. It will also enable personal contact by knowing additional information from social networks (working experience, job responsibilities, etc.) and photo. One of the potential drawbacks is an increase in the amount of spam (irrelevant or selling offers), but in this case, a company should decide between not missing a business opportunity and fewer emails.
5. Could be obvious suggestions, but it is critical **to answer requests on time and decrease response time**. That gives a chance not to miss an opportunity and interesting contact. If it is not possible to answer in short time, it is better to leave a short message that an email is delivered and will be answered in a particular period of time. In the case when an offer is not interested, it is suggested to answer it saying that in this period of time the request is not interesting, but still keep the company in the business network for future opportunities. Even more so, since a network is a certification of social credentials.
6. In case when an OBNP has a rating system, it is recommended to gain as many labels, points, etc. as possible, since it is increasing company's visibility and promotion on the platform and provides a signal to other companies of high reputation among members of the platform, that aspect can help to increase trust.
7. In the case when an OBNP has a review system, it is suggested to write meaningful reviews for other companies (if there is a direct contact or collaboration), that will trigger other companies to

write a review for each other. That provides additional information about the company and increase reputation, visibility, and trustfulness.

8. **Be active on a platform** – i.e., check new profiles of companies, contact appealing companies. Furthermore, be part of a community and groups – participate in discussions, share your ideas and knowledge. That will expand your network and boost your reputation and influence on the platform.

Recommendations for OBNPs' managers

The main success of an OBNP lies in making sure that companies spend time on it as much and as efficiently as possible by accomplishing their needs and making their user experience pleasant in sense that a company can find everything in one single place. Since for now there is no one well-known OBNP, it is a great business opportunity to turn your platform into the best one following the next suggestions (introduced in order of importance):

1. The main purpose of OBNPs is to help companies in finding their future partners, thus filters, keywords search, recommendation, and matching systems are essential. In this, smart categories and grouping of companies, as well as AI, can help. Also it is suggested to make a notification system if a new company matching a search request registers on a platform.
2. The second essential aspect of an OBNP is users' interaction on the platform. Organize a space for communication like chats or at least a contact form with a possibility to transfer documents, images, and pictures. Moreover, provide members with tools for video calls for groups of people. That will decrease communication lag and boost personal connections at the end it will increase trust among people. Since there will be international users a feature like time zone synchronization will be handy to plan the calls.
3. Marketing and promotion of a platform at the beginning is crucial until it reaches critical mass after which networking effect starts. To help companies accomplish their goals in networking various stakeholders all over the world should be attracted. Stakeholders are startups, SMEs, corporations, research institutions, investors, professionals (individuals), etc. It is important to have a balance among groups, for instance, not only research institutions or professionals, to make sure that demand for partners meet supply.
4. From the financial side – a strong business model is a formula for success.
5. From the technical side – the platform should be light, fast, and intuitive. It should be accessible from all devices – smartphones, tablets, and computers – and preferably to have a mobile application or at least a mobile version of the website. The user experience is really important – simple but modern design and intuitive navigation. Moreover, it is crucial to have good SEO and be in the top of the list in search engines. In addition, customer support, feedback from users and expert advice raise positive experience of using the platform. An important aspect of online is security system and identity check.
6. Provide all necessary tools for companies to have a well-organized profile/account – i.e., it can be as a mini-website of a company (in this case company might use this profile instead of making an own website what is a plus for an OBNP). Provide a possibility to post videos, images, attach heavy files, etc. Moreover, to create an employee page with contact details of responsible people and provide links to LinkedIn or other social networks profiles. That will boost the personalization of users' interactions. In additional, organize space for posting partner requests or offers as well as job requests/offers and investors search or crowd funding campaigns.
7. Quality check of companies' profiles and their requests/offers will decrease the chance of bots. Also, control for up-to-date request/offers will increase the quality of available information.
8. To make a registration process faster and easier it is suggested to find a way how to draw the information available on the Internet about the company (e.g., from companies websites).

9. For increasing trust among users, tools such as reviews and a rating system can be implemented.
10. To fulfill the need of belonging to a community, groups of interests or expertise should be created for connecting people (e.g., connect scientists to scientists, marketing to marketing people, also by industries). That will help to connect the right people to each other that they are talking the same language. Furthermore, don't make barriers in users interactions (i.e., no intermediaries in between), lets users organize their own communities and maintain them – it increases the feeling of belonging, responsibility, and forcefulness.
11. It should be not forgotten that a platform goes beyond a database with contact details – it is suggested to organize a space for learning. For example, forums, online events, webinars, etc. they can be organized by users for their communities' members. Moreover, to implement a space for news and teaching materials.

VII. Limitations

The research has several limitations that have to be mentioned in regards to the suggestions for further research. First of all, the research is only a snapshot in time. Since online networking is fast developing topic and an OBNP is a recent phenomenon, it has to be monitored for a longer time. Generations' change, technology development, and progressiveness of digitalization are factors that directly influence people's habits and working styles which includes networking as well. Therefore, the whole situation is changing and has to be observed regularly.

Secondly, it is important to note that the sample size of companies which make use of online networking, in particular OBNPs, is small. Only 6 companies which use OBNPs agreed to participate in the research, therefore small sample size may limit the generalizability. In order to ensure the generalizability of this study's results, more participants are necessary. Also, one of the limitations is that only half of the interviewees were from generations Y and Z. Since generation type (Baby Boom, X, Y, Z) influence habits and behavior in everyday life and work environment it would be better to investigate networking process only among participants who represent generations Y and Z.

Thirdly, participants of the interviews were only from the EU and African countries. The perception of offline and online networking may vary from country to country due to cultural differences and economic development of the country (e.g., the Internet and electronic devices penetration, size of market).

Lastly, the majority of the interviewees were non-native English speakers. This fact could lead to difficulties in explaining themselves in a foreign language.

VIII. Conclusion

The motivation and a starting point for this master's thesis was the question - why there is no single famous and actively used online business network in the current era of digitalization and smart technology as a part of humans' private and working life.

The research started with an investigation of SMEs' and startups' needs in networking (a process of finding new potential partners) for co-innovations and collaboration. The list of companies' needs in networking was elaborated from the theoretical point of view and from the empirical research. Then possible ways of networking (online and offline) were explored as well as their advantages and disadvantages derived from the literature and the empirical study. The question of whether and how online and offline networking substitute or complement each other was answered as these two ways complement each other from the theoretical and practical perspectives.

After completing the theoretical research, the research model with factors (reasons) that influence choice of using online or offline networking was drawn for further analyzing it with a mean of qualitative research.

The main research question - how online business networking platforms can help companies to accomplish their needs in networking – was answered in regards to theory (conceptually) and practice (tools and features). This helped to evaluate about improvements for online networking in general and for OBNPs in particular. Finally, challenges that occur during the development of OBNPs were discussed with the purpose of being aware of and preventing them in future.

For empirical research, a qualitative method, particularly 11 semi-structured interviews with companies-users of OBNPs (six) and platforms-providers (five) were conducted. This helped to receive a practical point of view on the topic and to check to what extent the theory sums up the reality in the business world.

As a practical contribution of this thesis, recommendations for better usage of online networking and OBNPs for SME's and startups were provided along with recommendations for platform-providers on how it is better to fulfill the companies' needs in networking.

8.1. Further research

This research was intended as an exploratory study since OBNPs is a young phenomenon and some participants didn't profoundly use OBNPs in their networking process due to various reasons such as low user experience and activity of the platforms, personal habits, etc., besides that, OBNPs are constantly under development and customization. It would be rational to conduct a longitudinal study to fully investigate the effects and results of using online networking, in particular, OBNPs on accomplishing the companies' needs in networking and collaborations for co-innovation.

Moreover, only companies-users of OBNPs were chosen as one target group of this research, it would be interesting to investigate perceptions of offline/online networking and OBNPs of randomly chosen companies (SMEs and startups) – not only users of OBNPs.

Regarding the research model of the study, further research on newly proposed factors and "weight" of all the factors/reasons for choosing a particular way of networking is needed to have a deeper understanding of the situation.

Appendices

Appendix 1. Protocol of the interview with companies-users of OBNPs

Good morning/afternoon Mr./Ms. XXX,
thank you for participating in our research!

Before starting with the interview I would like to ask you organizational questions:
1. Would you mind if I record the interview?
2. Do you mind if I use your company's name and your position in my master's thesis?
3. I sent you a document with the conditions of the research. Could you please sign the form of informed consent for the research and send it to me back?

The interview will last around one hour.

To begin the interview I would like to shortly introduce the purpose of the research and its background. The study is conducted by the University of Twente (Netherlands). I'm a Master's student and I'm writing my graduation thesis.

The assumption of my study is that since companies realize that partnership is a source of innovative ideas, new knowledge, and technology, they start to network actively. Companies are finding themselves in a difficult situation regarding how to use the new online possibilities to benefit more from online networking. Networking platforms' developers/managers, on the other hand, are facing the challenge of identifying the needs of the companies and optimizing/customizing the platforms.

The purpose of the research is therefore to get insights on the actual needs of companies in networking for co-innovations and how these needs can be meet by online networking platforms.

Do you have any questions about the study so far?

Questions:
1. Could you please briefly introduce your company and yourself?
2. How does your company currently network (ways, methods, tools)? Could you please give concrete examples?
3. What are the purposes of networking for your company? What are your company's needs in networking? Could you please give concrete examples?
4. Do you fulfill different needs by different methods? If yes, how/why? If no, why? Could you please give concrete examples?
5. How does your company choose its ways of networking? Could you please give concrete examples?
6. How often do you network for your company in order to find new business partners?
7. What kind/types of partners are you looking for?
8. What are the advantages and disadvantage of offline networking (conferences, meetings, etc.) for the company? Could you please give practical examples?
9. What are the advantages and disadvantage of online networking (websites, apps, etc.) for the company? Could you please give practical examples?
10. In your opinion, do offline and online networking complement or substitute each other? Why? In what cases? Could you please give concrete examples?
11. How would you divide the networking process into several steps or stages?
12. We identify the following stages: 1) Searching for companies – potential partners, 2) Selecting companies from a pre-selected list of potential partners, 3) Contacting chosen companies. Does it reflect the real life situation? If yes/no, why?

13. What are important differences and similarities of these stages? Why?
14. What factors/reasons which influence the choice of the type of networking (online/offline) do you (your company) consider important? Why? Could you please give concrete examples?
15. Do these factors differ for the three stages of networking (search, select, contact)? If yes, could you please separate them by the stages and explain your choices? If no, why? Could you please give concrete examples?
16. Questions regarding the conceptual model.
17. Your company has a profile on XXX website. Could you please shortly tell me why you have chosen exactly this platform and your experience of using it?
18. Does your company have accounts on other networking platforms? If yes, on which? If no, why?
19. In your opinion, what can be improved in online networking in general? Could you please give concrete examples?
20. What features should these platforms have in order to help companies network successfully? Could you please give concrete examples?
21. Do you have any questions for me?

Thank you for your answers. In return for your participation, I'll send you my master's thesis with all the information about the research and findings after my graduation (probably in September 2017). That will help you to know more about how to get the most/best out of online networking platforms; about other similar networking websites; and about the needs and experience in networking of other companies (let's call it best/worst practices). That means new insights for growing your business.

If you like, I can send you the summary of our interview. I can do it within a week.

Is it possible to contact you again if I have additional questions? If you have any additional insights or information what you think will be relevant for the research, please be free to send me an e-mail or give a call.

Thank you for your time and input!
Have a nice day!

Appendix 2. Protocol of the interview with managers/developers of OBNPs

Good morning/afternoon Mr./Ms. XXX,
thank you for participating in our research!

Before starting with the interview I would like to ask you organizational questions:
1. Would you mind if I record the interview?
2. Do you mind if I use your company's name and your position in my master's thesis?
3. I sent you a document with the conditions of the research. Could you please sign the form of informed consent for the research and send it to me back?

The interview will last around one hour.

To begin the interview I would like to shortly introduce the purpose of the research and its background. The study is conducted by the University of Twente (Netherlands). I'm a Master's student and I'm writing my graduation thesis.

The assumption of my study is that since companies realize that partnership is a source of innovative ideas, new knowledge and technology, they start to network actively. Companies are finding themselves in a difficult situation regarding how to use the new online possibilities to benefit more from online networking. Networking platforms' developers/managers, on the other hand, are facing the challenge of identifying the needs of the companies and optimizing/customizing the platforms.

The purpose of the research is therefore to get insights on the actual needs of companies in networking for co-innovations and how these needs can be meet by online networking platforms.

Do you have any questions about the study so far?

Questions:

1. Could you please briefly introduce your company and yourself?
2. What are the needs/purposes of your users (companies) in networking?
3. How can your platform help to fulfill these needs? Could you please give concrete examples?
4. What are the reasons why companies choose online networking in general? Could you please give concrete examples?
5. If organizations have different needs/purposes of networking do they use different ways of networking for specific purpose? If yes, why, how? If no, why?
6. In your opinion, what are the advantages and disadvantage of online networking? Could you please give concrete examples?
7. What are the advantages and disadvantage of offline networking? Could you please give concrete examples?
8. In your opinion, do offline and online networking complement or substitute each other? Why?
9. Why companies choose your platform?
10. What does make your platform successful?
11. Since networking is a process, what stages/steps can you identify?
12. We identify the following stages: 1) Searching for companies – potential partners, 2) Selecting companies from a pre-selected list of potential partners, 3) Contacting chosen companies. Does it reflect the real life situation? If yes/no, why?
13. What are important differences and similarities of these stages? Why?
14. What factors/reasons which influence the choice of the type of networking (online/offline) do you consider important? Why? Could you please give concrete examples?
15. Do these factors differ for three stages of networking (search, select, contact)? If yes, could you please separate them by the stages? If no, why?
16. Questions regarding the conceptual model.
17. Could you please shortly tell about the user experience of your platform?
18. In your opinion, what can be improved in online networking in general? Could you please give concrete examples?
19. What additional features could you implement to your platform in order to help your users network successfully?
20. What are the main challenges that the platform faces?
21. When I was looking for online business networking platforms similar to XXX, I could not find many of them. I found just a couple and I found out that some platforms are not active any longer or ‘dead’. Do you know what are the reasons of this fact that there are not many online business networking platforms available and/or they are not successful?
22. Do you know some statistics, how many active users do you have?
23. Do you have any questions for me?

Thank you for your answers. In return for your participation, I'll send you my master's thesis with all the information about the research and findings after my graduation (probably in September 2017). That will help you to know more about the needs in networking of your current or potential clients; their experience of using your and similar websites; and some suggestions for improving the user experience of the platform. That means new insights for growing your business.

If you like, I can send you the summary of our interview. I can do it within the week.

Is it possible to contact you again if I have additional questions? If you have any additional insights or information what you think will be relevant for the research, please be free to send me an e-mail or give a call.

Thank you for your time and input!
Have a nice day!

Appendix 3. Codes

In Table 6, codes that were used during analyzing the qualitative data are presented with the categories that they belong to.

Table 6. List of codes with their categories

Core category	Category	Subcategory	Code
Networking process	Needs in networking		product/technology development
			international expansion
			business development
			visibility, transparency, reputation
			brand recognition, promotion
			new markets
			business growth
			learning
			be part of a community
	Ways of networking	Online	online social networks
			emails, phone, Viber, Skype
			company's website
			industry specific platforms
			search engines
		Offline	meetings, events,
			personal contacts - references
			professional relationships - references
			family
			agency
			accelerator
			letters
	Online networking	Advantages	low costs
			to know people "by chance"
			access
			easy to use, low effort
			preparation
		Disadvantages	not natural
			communication failure
			no 1 OBNP
			difficult to build trust
			time zones

	Offline networking	Advantages	intuitive, natural
			easy to build trust
		Disadvantages	high costs
			certain people
			less access
			specific location and time
			time-consuming
			traveling
			self-confidence needed
Research model	Stages		searching
			selecting
			contacting
			confidence and economic relationship building
	Factors		costs
			speed/time spent
			project type
			scope
			UX
			quality of matching
			availability of info
			accessibility
			trust
			ease of interaction
			HR
			technology type
			distance
			new ways of (digital) communication and the trend of the digitalization of working sphere
			generation
OBNP	Fulfilling the needs		matching
			access to big amount of companies
			create groups/communities
			teaching
			access to info about a company
			tools for contacting
			post requests/offers
			expert help
			access to international companies
			rating and review systems
			SEO
	Improvements		access
			direct contact with camera and video
			categories
			indexation
			personal details
			profile's check
			send file, pics
			time zones
			more companies on a platform
			UX
			matching

			balance among users
			accurate info about a company
			improve trust
			rating system
			teaching
			promote interaction
			speed of a platform
			security
	Challenges		funding/business model
			UX
			attract users

Appendix 4. List of active OBNPs

In Table 7, the list of OBNPs what were interviewed and additional examples of OBNPs that were found in the Internet with a short description are presented.

Table 7. List of OBNPs with a short description

OBNP	Description
EuroQuity www.euroquity.com	A service created by Bpifrance in 2008. The goal is to put companies in contact with development partners, institutions, company advisors, and investors. Every company-user has a page (like a mini-website) with company's description, news, and additional files, description of what company is looking for (partnership, investment), and employees' contacts. It has filters and searching field for keywords. EuroQuity has communities that any company-user can join. Also it has a rating, likes, and following systems that increases company's visibility on the platform. Over 5 000 companies are registered on the platform from Europe and Africa
Marktreif.berlin www.marktreif.berlin	A platform created by The Berlin Chamber of Commerce and Industry (CCI) for finding partners for research and development cooperation. On the platform contacts, information, and services are provided in relation to the transfer of know-how and technology with the goals of build a network of research institutions and companies, promote Berlin as a center of science and technology, and create transparency. Every company has a profile with description of an organization, employee's contact details, and a contact form. A company-user can post a cooperation requests and/or projects requests/offers. It has a search tool and filters to sort companies-users. The focus lies on Berlin organizations, but not limited to. Around 300 companies are registered on the platform.
NjangiList www.njangilist.com	A platform created in 2016 for connecting startups and SMEs in Africa, the African diaspora, and investors. The goal of the platform is to be the gateway to African Startups and the startup ecosystem on the continent. Every company-user has a profile (like a mini-website) with company's description, contact details and form. The platform has a blog for news and events, also it has possibility to post jobs offers for companies-users. It is possible to follow companies-users. More than 100 companies are registered on the platform.

Enterprise Europe Network een.ec.europa.eu	The Enterprise Europe Network is created by European Commission (EC) can help a business find the right international partners to grow and expand abroad. Its goal is to help businesses innovate and grow on an international scale. Every company has an account where it posts company's description and partner/technology request/offer. The platform provides a search and contact tool. More than 8 300 requests/offers are published on the platform.
euMatch 2.0 www.fitforhealth.eu	A service for (international) partner search and matchmaking created by EC. It covers health, demographic change, wellbeing, and other health-related topics. It aims to promote and enhance a sustainable participation of European industry in the health-related sector. It provides a possibility to publish expertise profile, project initiative or find partners. Every company-user has a profile with a company and expertise description and partner sought. It has a search tool with filters and keywords. Moreover, it has an online chat that allows companies to interact via the platform. It has more than 1 200 profiles.
The NMP TeAm Partner Search Facility www.nmp-partnersearch.eu/index.php	A web service for (international) partner search is created by EC and focused on key enabling technologies - nanotechnologies, advanced materials, biotechnology and advanced manufacturing and processing. Every company has a profile and can post a partner search/offer. According to the estimation, it has more than 300 requests/offers.
The IMI Partner Search Tool cloud.imi.europa.eu/web/eimi-pst	A tool is designed to help find potential partners in the field of innovative medicine, created by EC. A company can share information about its expertise and topic(s) of interest that enables other potential partners to contact the company and invite it to join a consortium. The number of profiles was not found.
Powerlinx www.powerlinx.com	A platform created in 2012 for identifying and connecting businesses with new strategic partners. The mission is to inspire businesses to grow through relevant, intelligent and valuable web-based experiences that help businesses to identify and achieve their objectives. The platform enables businesses to access new markets, strategic partnerships, capital sources and connections to ensure that they deliver on their goals. Every company-user has a profile (like a mini-website) with company's description and team, events and partners. Every company-user may post a business opportunity or search for it. The platform uses Big Data for a matching mechanism and possibility to contact other organizations via the platform. Also it has a rating and labels system for increasing companies' visibility on the platform. Based on the information provided by its customer help there are more than 60M companies on the platform.
Novertur www.novertur.com	A service for matchmaking for SMEs internationalization created in 2012. The goal is to help companies find that special something that will lead the company into foreign markets. The platform provides matchmaking and networking options. Every company has a profile with company's description and interest. The platform runs matchmaking mechanism and recommends companies. It is possible to make connections and contact them via the platform. Also it provides space for discussion and companies-users can organize groups. It has more than 5 600 profiles.

BeConnections www.beconnections.com	An interactive database online for searching, finding, and connecting with other businesses globally founded in 2013. The mission is to bring the world to companies-users' office, virtually, and to be company's network of choice. It helps to embrace new opportunities and develop connections. Every company-user has a profile a description, contact details, employees, and newsfeed. The platform provides a search tool and possibility to connect with other companies on the platform as well as contact them via a contact form. Companies-users may organize groups (communities) on the platform. More than 800 companies are registered there.
MakePartnership makepartnership.com	A platform for finding an ideal business partner company created in 2017. A company can post a partnership request and other companies may contact them via the platform (it has a contact form). Currently, the platform is under construction and it has only 10 partnership requests.

Bibliography

(2014). *A Report on the Strategic Value of Business Alliances and Compatible Partner Matching*. Tech. rep., The Business Performance Innovation Network, The Chief Marketing Officer Council, & Powerlinx.

Regulation (EC) No 139/2004 Merger Procedure. Case No COMP/M.7217 - Facebook/ WhatsApp. Article 6(1)(b) Non-opposition. (2014). Luxembourg. Retrieved from http://ec.europa.eu/competition/mergers/cases/decisions/m7217_20141003_20310_3962132_EN.pdf on June 02, 2017

Advantages to Online Networking. (2017). Retrieved from https://onpace.osu.edu/modules/searching-for-jobs-and-internships/developing-your-professional-network/advantages-to-online-networking

The Advantages of Networking. (2017). Retrieved from https://www.aoa.org/Documents/optometric-staff/The_Advantages_of_Networking.pdf on May 24, 2017

ASAP. (2002). Strategic Alliance Best Practice User Guide. Association of Strategic Alliance Professionals (ASAP).

Axelsson, B., & Easton, G. (1992). Industrial networks: A new view of reality. *Long Range Planning, 25(3)*.

Baldwin, C. Y., & Clark, K. B. (2002). *The Option Value of Modularity in Design: An Example from Design Rules, Volume 1: The Power of Modularity*. SSRN Electronic Journal.

Batikas, M., van Bavel, R., Martin, A., & Maghiros, I. (2013). *Use of Social Media by European SMEs: Final Report*. European Comission.

Beall, G. (2016). 8 Key Differences between Gen Z and Millennials. Retrieved from http://www.huffingtonpost.com/george-beall/8-key-differences-between_b_12814200.html on June 05, 2017

Bessant, J., & Tsekouras, G. (2001). Developing learning networks. *AI \& SOCIETY, 15*, 82-98.

Brown, S. (2011). Social media for company research. *Business Information Review, 28 (3)*, 163-174.

Browning, L. D., Beyer, J. M., & Shetler, J. C. (1995). Building Cooperation in a Competitive Industry: SEMATECH and the Semiconductor Industry. *The Academy of Management Journal, 38*, 113-151.

Bughin, J., Chui, M., & Miller, A. (2009). *How companies are benefiting from Web 2.0*. Tech. rep., McKinsey & Company Inc. Retrieved from http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/how-companies-are-benefiting-from-web-20-mckinsey-global-survey-results on May 29, 2017.

Burriss, T. L. (2013). *Networking for Mutual Benefit: Networking is finding, developing and nurturing relationships that mutually move people forward through life (1st ed.)*. Burriss Consulting, Incorporated.

Cavusgil, S. T. (1998). Executive Insoghts: International Partnering: A Systematic Framework for Collaborating with Foreign Business Partners. *Journal of International Marketing, 6 (1)*, 91-107.

Chesbrough, H., & Bogers, M. (2014). *Explicating Open Innovation: Clarifying an Emerging Paradigm for Understanding Innovation. Henry Chesbrough, Wim Vanhaverbeke, and Joel West, eds. New Frontiers in Open Innovation.* Oxford: Oxford University Press, Forthcoming.

Chui, M., Miller, A., & Roberts, R. P. (2009). Six ways to make Web 2.0 work. *McKinsey Quarterly, 1*, 2-7.

Coase, R. H. (1960). The Problem of Social Cost. *Journal of Law and Economics, 3*, 1-44.

Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. *The American Journal of Sociology, 94*, 95-120.

Corbin, J., & Strauss, A. (2014). *Basics of qualitative research: Techniques and procedures for developing grounded theory.* Sage.

Deilotte. (2015). Facebook's Global Economic Impact (Rep.). Retrieved from https://www2.deloitte.com/uk/en/pages/technology-media-and-telecommunications/articles/the-global-economic-impact-of-facebook.html on June, 01, 2017

Duhé, S. C. (2012). *Introduction: A thematic analysis of 30 years of public relations literature addressing the potential and pitfalls of new media. In Sandra Duhé (Ed.), New media and public relations (pp.13-26).* Bern, Schweiz: New York: Peter Lang.

Edler, J., Meyer-Krahmer, F., & Reger, G. (2002). Changes in the strategic management of technology: results of a global benchmarking study. *R&D Management, 32(2)*.

Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media \& Society, 13 (6)*, 873-892.

EuropeanCommission. (2016). *Online Platforms (Rep. No. 172) in Communication on Online Platforms and the Digital Single Market.* Brussels.

Evans, D. S., & Schmalensee, R. (2010). Failure to Launch: Critical Mass in Platform Businesses. *Review of Network Economics, 9 (4)*, 1-26.

Feltin, L. (2015). BIZNIK'S STORY. Retrieved from http://biznik.com/2015/07/28/bizniks-story/, accessed 24 July, 2017

Fischer, M. M., & Varga, A. (2002). Technological innovation and interfirm cooperation: An exploratory analysis using survey data from manufacturing firms in the metropolitan region of Vienna. *International Journal of Technology Management, 24*, 724-742.

Flick, U. (2014). *An introduction to qualitative research.* Los Angeles: Sage.

Ford, D., & Mouzas, S. (2013). The theory and practice of business networking. *Industrial Marketing Management, 42*, 433-442.

Gordon, W., & Langmaid, R. (1988). *Qualitative market research: a practitioner's and buyer's guide.* Aldershot u.a.: Gower.

Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology, 78(6)*.

Greve, H., Rowley, T., & Shipilov, A. (2014). *Network Advantage: How to Unlock Value from Your Alliances and Partnerships*. USA: John Wiley & Sons Ltd.

Henderson, K. J. (2017). Advantages of Using the Internet for Business. Retrieved from http://smallbusiness.chron.com/advantages-using-internet-business-320.html

Hennigan, A. (2015). *Payforward Networking (1st ed.)*. Förenta staterna: CreateSpace Independent Publishing Platform.

Hitt, M. A. (2000). *Dynamic strategic resources: development, diffusion and integration*. Chichester: Wiley.

Hoffman, D. L. (2009). Managing beyond Web 2.0. Retrieved from www.mckinsey.com on May 27, 2017

Huggins, R., Johnston, A., & Thompson, P. (2012). Network Capital, Social Capital and Knowledge Flow: How the Nature of Inter-organizational Networks Impacts on Innovation. *Industry and Innovation, 19(3)*, 203-232.

Jackson, S. E. (2011). The value of weak connections. *Journal of Business Strategy, 32(5)*, 51-53.

Kask, J., & Linton, G. (2013). Business mating: when start-ups get it right. *Journal of Small Business \& Entrepreneurship, 26 (5)*, 511-536.

Kraatz, M. S. (1998). Learning by association? Interorganizational networks and adaptation to environmental change. *Academy of Management Journal, 41 (6)*, 621-643.

Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing*. Sage.

Leavy, B. (1994). The Craft of Case-Based Qualitative Research. *Journal of Irish Business and Administrative Research*.

Lin, N. (1999). Building a network theory of social capital. *Connections, 22 (1)*, 28-51.

Lynch, J. G. (2015). On Relationship Building: Networking for Mutual Benefit. Retrieved from http://www.linkedin.com/ on May 27, 2017

Martens, B. (2016). An economic policy perspective on online platforms. European Commission. Retrieved from https://ec.europa.eu/jrc/sites/default/files/JRC101501.pdf on May 31, 2017

Mason, M. K. (2017). Worldwide Business Start-Ups. Retrieved from http://www.moyak.com/papers/business-startups-entrepreneurs.html on June 05, 2017

McMillan, D. W., & Chavis, D. M. (1986). Sense of Community: A Definition an(i Theory. *Journal of Community Psychology, 14*, 6-23.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks: SAGE.

Mothe, C., & Quelin, B. V. (1998). How firms can benefit from collaborating within R&D consortia. *In M. A. Hitt, J. E. Ricart Costa, \& R. D. Nixon (Eds.), Managing strategically in an interconnected world*, 321-347.

Naisbitt, J. (1982). *Megatrends: Ten New Directions Transforming Our Lives*. Warner Books.

Nkongolo-Bakenda, J.-M. (2001). Inter-firm Networking Propensity in Small and Medium-sized Enterprises (SMEs). *The Journal of Entrepreneurial Finance and Business Ventures, 1 (1)*, 99-122.

OECD/Eurostat. (2015). Oslo Manual. Guidelines for collecting and interpreting innovation data. *OECD Publishing*.

Pittaway, L., Robertson, M., Munir, K., Denyer, D., & Neely, A. (2004). Networking and innovation: a systematic review of the evidence. *International Journal of Management Reviews, 5-6*, 137-168.

Powell, A., Piccoli, G., & Ives, B. (2004). Virtual teams: a review of current literature and directions for future research. *The Data Base for Advances in Information Systems, 35(1)*.

Powell, W., White, D., Koput, K., & Smith, J. O. (2005). Network Dynamics and Field Evolution: The Growth of Interorganizational Collaboration in the Life Sciences. *American Journal of Sociology, 110 (4)*, 1132-1205.

Provan, K. G., Fish, A., & Sydow, J. (2007). Interorganizational Networks at the Network Level: A Review of the Empirical Literature on Whole Networks. *Journal of Management, 33 (4)*, 479-516.

Saunders, M., Lewis, P., & Thomhill, A. (2009). *Research Methods For Business Students*. (5th ed.). Pearson Publication Limited.

Shappley, K. (2017). 4 Success Tips From Small Businesses That Are Doing It Right. Retrieved from https://www.entrepreneur.com/article/297487

Sharma, D. D., & Blomstermo, A. (2003). The internationalization process of Born Globals: a network view. *International Business Review, 12*, 739-753.

Sigfusson, T., & Chetty, S. (2013). Building international entrepreneurial virtual networks in cyberspace. *Journal of World Business, 48 (2)*, 260-270.

Soekijad, M., & Andriessen, E. (2003). Conditions for Knowledge Sharing in Competitive Alliances. *European Management Journal, 21(5)*, 578-587.

Thelle, M. H., Sunesen, E. R., Basalisco, B., la Cour Sonne, M., & Fredslund, N. C. (2015). *Online Intermediaries - Impact on the EU Economy*. Copenhagen Economics, EDiMA.

Toyama, M. (2007). A Transaction Cost Approach to the Effects of Network Growth on Cost and Price. *Contemporary Management Research, 3(1)*, 71-82.

Wellman, B. (2001). Physical Place and Cyberplace: The Rise of Personalized Networking. *International Journal of Urban and Regional Research, 25 (2)*, 227-252.

Yli-Renko, H., Autio, E., & Tontti, V. (2002). Social capital, knowledge, and the international growth of technology-based new firms. *International Business Review, 11 (3)*, 279-304.

Z_punkt. (2017). The global drivers of change shaping the future of your business. Retrieved from http://www.z-punkt.de/en/themen/artikel/megatrends#