MYKOLAS ROMERIS UNIVERSITY

BUSINESS AND MEDIA SCHOOL

ASTA TIŠKUTĖ
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ADOPTION OF ENTERPRISE SOCIAL NETWORKING TOOL: A CASE STUDY

Master Thesis

Supervisor–
Assoc. Prof. Dr. Gintarė Žemaitaitienė

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ABBREVIATIONS

ESN – Enterprise Social Networking

ESM – Enterprise Social Media

DOI – Diffusion of Innovations

ICT – Information and Communication Technology

IT - Information Technology

PEOU – Perceived Ease of Use (from Technology Acceptance Model)

PIIT – Personal Innovativeness in the domain of IT

PU – Perceived Usefulness (from Technology Acceptance Model)

SNS – Social Networking Site/Service

TAM – Technology Acceptance Model

INTRODUCTION

Relevance and level of investigation. The number of Internet users globally by the end of year 2015 is estimated to reach 3.2 billion, with Europe having the highest rate of individual users worldwide (International Telecommunication Union, 2015). In particular some technologies, such as various social media tools, become a more prominent form of communication, not only among individual consumers, but also within enterprises (McKinsey Global Institute, 2012). Among different social media platforms used in organizations, social networking sites are the most popular (Verheyden and Goeman, 2013). In fact, the adoption of social networking services together with other Social Media platforms in different organizational contexts, is considered to hold potential for value creation in such areas as internal and external communication, collaboration, knowledge sharing, etc. (Ahlqvist et al., 2008).

Increased usage of social media technologies affects not only previously established structures of organization (for example, the emergence of virtual organizations), but certain aspects of using these tools particularly in organizational setting, has led to the development of the so called internal Social networking services or Enterprise social networking (hereafter ESN) tools: private social networks created for use within organizations. One leading example of this innovation is Yammer, launched in 2008, described by the company itself as a *"collaboration software and business applications [that] allow you to get connected to the right people, share information across teams and organize around projects"* and which is *"used by more than 200,000 companies worldwide"*, including DHL, Shell, Unicef UK, various universities, etc. (Yammer.com; Pinto, 2014). Lithuania is no exception: even though the concept of ESN is still very new, it was announced in October 2014 that within a website www.3erdve.lt a social network Yammer was integrated as a personal and safe platform for communication between all Lithuanian libraries ("Bibliotekininkų portalo www.3erdve.lt pristatymas", 2014).

Along with the increase in information and communication technology adoption, there is an augment of literature concerned with information overload in organizations (Edmunds and Morris, 2000, Eppler and Mengis, 2004). Even though ESN tools are supposed to make communication, collaboration and knowledge sharing process much easier, it should be noted that not only this type of technology is initially providing one more channel for receiving information and possibly adding to the problem of information overload, but until successfully and fully adopted, an innovation like this is in itself new information for employees. Thus, it already seems important to better understand the process of adoption of a new information and communication technology, such as ESN tool.

There is already an extensive research on the diffusion of innovations, including a number of empirical researches in the area of communication (Rogers, 2003). In particular, when looking at the

adoption of information technology, most commonly used models are Technology Acceptance Model (Davis, 1989), Theory of Planned Behaviour (Ajzen, 1991), and most recently – Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2003). Researches using these models (or their combinations) have shown that a number of factors influence the adoption or rejection of new information technology: perceived usefulness, perceived ability to use (or capacity), perceived relative advantage, compatibility, personal innovativeness, willingness of individuals, different contextual factors within organization, etc. (Carter and Belanger, 2004, Agarwal and Prasad, 1998, Cooper and Zmud, 1990, Walker, 2002). In fact, it was this increasing number of research on determinants of innovation acceptance by forming new constructs from existing models that has led to the formation of a unified model, which integrates elements across eight prominent models in Information technology research (Venkatesh et al., 2003). However, despite the wide-ranging research on the factors influencing successful adoption of innovation, the failure of implementing new initiatives in organizations remains widespread and reported failure rates are found as high as 93 % (Decker et al., 2012). According to Rogers (2003), the pro-innovation bias leads researchers to underemphasize the rejection or discontinuance of innovation, this way not learning about certain important aspects of diffusion and limiting our knowledge. Rogers suggests, that in order to overcome the pro-innovation bias, diffusion researchers should be more questioning about how they select the innovation to study, to acknowledge that rejection and discontinuance occur frequently during diffusion of innovation process and to investigate a broader context of diffusion. This is considered to be a challenge in organizational setting, since in many cases the individual choice to adopt or reject an innovation can only be made after a prior authority or collective innovation-decision to implement a certain innovation was made. Meaning that, for example, even though the decision was already made to implement a certain information and communication technology within an organization, it can still be rejected or discontinued after initial adoption.

Novelty. The issue of a low innovation adoption rate was noted in regards to ESN tools and their implementation in organizations as well. After a rapid spread across various enterprises and being adopted by most of leading companies in the world, news began to appear that the actual use of ESN has not been as high as hoped and that the management is struggling to make it work (Roe, 2014). Thus, a number of organizations which choose to adopt ESN tools are possibly facing an implementation failure, mostly due to a lack of sufficient knowledge about this particular type of innovation and its diffusion process. We believe our research is capable to address this issue by taking into account the suggestions regarding the pro-innovation bias and looking at the actual case of ESN tool implementation failure within an organization, this way learning more about the particular aspects of its diffusion process. Furthermore, in regards to our level of investigation, we choose not to focus solely on the beliefs and attitudes of individuals (there is already an extensive research

regarding the key beliefs influencing the adoption and use of various information technologies (Benbasat, 2007)), but to consider a broader context of diffusion process and to look into the important organizational aspects as well.

Research problem. A growing number of organizations worldwide (including Lithuania) are implementing new ESN tools, however, despite a vast amount of existing research on the adoption process of various ICTs, a significant number of implementation failures still occurs. We believe this is due to a lack of knowledge about the particular innovation at hand in general and about the particularities of its adoption process specifically in the organizational context.

The **purpose** of our study thus can be defined as to research the adoption process of enterprise social networking tool.

To achieve this purpose, further **objectives** are formulated:

1) To provide a comprehensive view on the concept of enterprise social networking and its use in organizational setting by conducting a theoretical analysis of scientific literature.

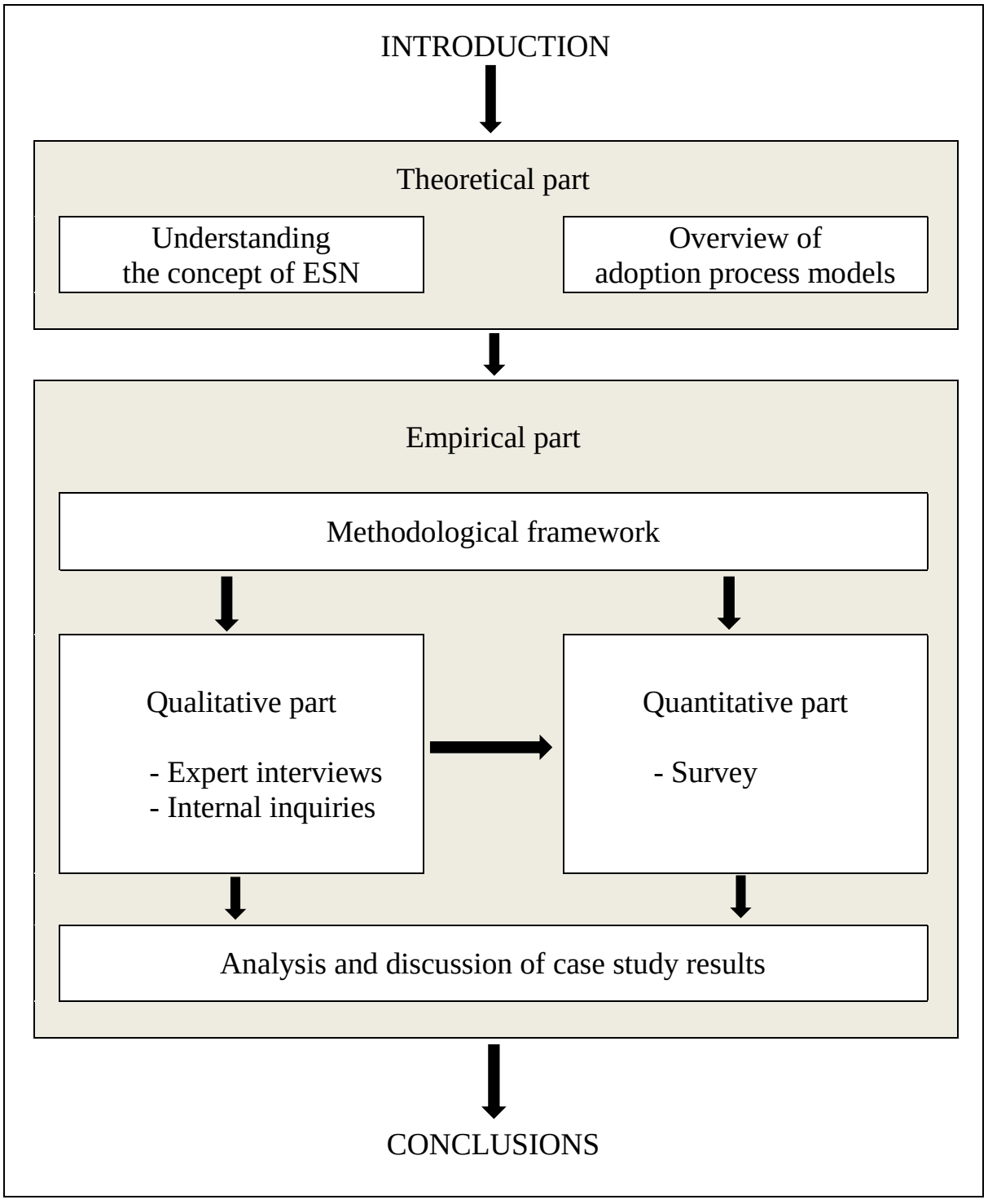
2) To analyse existing theoretical models for information and communication technology related innovation adoption process with the focus on issues concerning enterprise social networking adoption.

3) To prepare a theoretical framework based on scientific literature analysis in order to conduct a case study of enterprise social networking tool Yammer within a selected organization.

4) To determine factors affecting the adoption of Yammer in the selected organization and their importance for a successful implementation of enterprise social networking tools, by analysing qualitative and quantitative case study results.

A qualitative research strategy was chosen and a case study was conducted, since it enables the exploration of a phenomenon within its context using a variety of data sources and allows multiple aspects to be revealed and understood (Yin, 2011). To overcome case study limitations, qualitative and quantitative methods were combined. The research was carried out in the organization (hereafter "the Company"), where ESN tool Yammer was available for internal use for 9 months, up until it was decided to discontinue its use due to a low rate of adoption. Qualitative methods were used to explore and define possible factors related to the adoption of an ESN tool. This included document analysis: the review of existing primary literature, the analysis of existing archival records from the Company (previous internal employees' inquiry results, evaluating the need of ESN), and was combined with semi-structured interviews with the Experts inside the Company (the persons responsible for innovations related decisions and their implementation). This was followed by creating a quantitative instrument, a short on-line survey for all employees in the Company, with which it was possible to further determine the factors important for a successful ESN tool implementation in organizational context (please see the structure of the thesis in Figure 1, page 9).

Figure 1. Visual Structure of the Thesis



1. INTRODUCTION TO THE CONCEPT OF ENTERPRISE SOCIAL NETWORKING TOOLS AND THEIR USE IN ORGANIZATIONS

The first part will discuss online social networking and its place among other social media technologies. It will also present how social networking sites found their way into business sector, how a variety of enterprise social networking tools have emerged and what effect they had on common organizational practices and structure. At the end of first chapter, few examples regarding the use of enterprise social networking tools worldwide and in Lithuania are presented in order to give some context for the case study presented in Chapter 3.

1.1. Enterprise Social Networking as a Form of Social Media

To better understand Enterprise social networking, its use and capabilities, we have to determine its place among other social networking sites and social media in general. As it happens with complex and broad concepts which are employed in multiple areas, their understanding inevitably differs depending on the approach it is viewed from. We tried to stay as close as possible to the perspective of communication; however, the terminology may differ if considered from another point of view. An in depth analysis and discussion of less important concepts and their definitions was unfortunately beyond the scope of this work.

1.1.1. Introduction of Social Media: the foundations

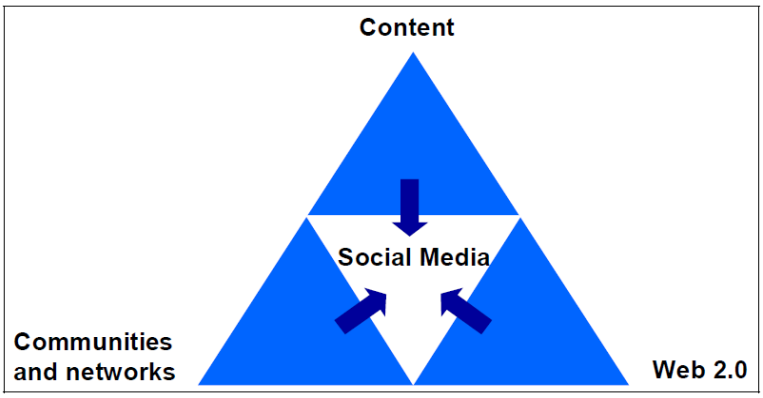
Social media as we understand today would not be possible without the advances in information and communication technologies (hereafter ICTs), especially over the last few decades. According to International Telecommunication Union fact sheet (2015), between 2000-2015 global Internet penetration grew from 6.5% to 43%, with internet access at home increasing from 18% in 2005 to 46% in 2015 and the number of mobile cellular subscriptions reaching 7 billion (total penetration rate of 97%). As internet became more and more accessible, its capabilities and applications have also evolved, and these technological advances have led to what is now referred to as Web 2.0. This term was introduced by Tim O'Reilly in 2004 and later used to describe the so called new phase of the web development, where it was becoming common to see more user-driven, interactive and social uses of the internet (O'Reilly, 2005). This is in comparison to the initial development of the web, which was also envisioned by its inventor Sir Tim Berners-Lee as a "collaborative workspace where everything was linked to everything", however, since there was a lack of the edit function for the Web clients (it was removed to speed up the process of adoption), people were left "thinking of the Web as a medium in which a relatively small number of people published and most browsed" (Anderson, 2007). The debate about whether the term Web 2.0 was created just for marketing purposes (as claimed by Scholz, 2008) or whether it actually did capture the idea of an evolution of internet capabilities and applications (or maybe both) is not essential for this paper, however, it seems adequate enough to use

the term Web 2.0 to refer to the technical features of social media. As Gretzel notes (2005), the terminology itself implies a technological point of view (version 2.0) and signifies progress and development: over the years internet based tools and technologies have become more sophisticated, interactive, accessible and specialized (a more extensive discussion comparing Web 1.0 and Web 2.0 can be found in Anderson, 2007, where he regards Web 2.0 as an umbrella term for better understanding the manifestations of newer Web services or in Gretzel (2015), where he already speaks about the emergence of Web 3.0). All in all, Web 2.0 is associated with easier creation and exchange of data; new ways to connect, much more moveable content and more visible interactions. And though there were many attempts to try to classify Web 2.0 enabled applications, they usually focus on the category of Social media, and so far one can only say, that "across all applications, connecting, collaborating, creating, conversing and commenting are the drivers of online behaviours supported through Web 2.0 technologies" (Gretzel, 2015). This brings us back to the discussion of social media, however, now we are aware that the functioning and thus the understanding of social media is determined by the continuing advances in ICT and the new capabilities it brings.

The concept of social media is complex, evolving and thus not easy to define. Quite often researchers seem to either quote a classification of social media forms by other authors (for example, by Kaplan and Haenlein, 2010, or by Cann et al., 2011), to give few examples of specific types (most commonly Facebook, Twitter, LinkedIn and Youtube), or to omit a clear definition.

For our study, we looked at the work of scholars who do provide their view on what constitutes social media, and it appears to always include several main elements. One of more comprehensive models was presented in the work of Ahlqvist et al., 2008. In their report "Social media Roadmaps", the authors share the knowledge generated during a two year information and communication technologies project "Social Media in the crossroads of physical, digital and virtual worlds" at VTT Technical Research Centre in Finland. Their definition of social media is built on three corner stones: content, communities and Web 2.0 (see Figure 2).

Figure 2. Social media triangle



Source: Ahlqvist et al., Social Media Roadmaps (2008)

Content refers to different types of user created content (photos, videos, presence information, reviews, tags etc.) that people create and publish on the web; social element represents the communities and networks that appear due to new possibilities of interpersonal communication; and the sum of the technical aspects that enables people and content to come together is called Web 2.0. Their definition of social media states that: "social media refers to the interaction of people and also to creating, sharing, exchanging and commenting contents in virtual communities and networks" (Ahlqvist et al., 2008). We will now look at the views of other authors through this particular model.

Ahlqvist et al. mention themselves, that Web 2.0 is sometimes used to talk about the whole phenomenon of social media (as, for example, does Pinto, 2014), however, they use this term to refer more to the technical part. In sum this refers to the technologies that "enable users to consume, contribute, share and augment content online" (Tuten, 2012). And within the descriptions of social media, this can be seen as such expressions as: software applications (Kugler et al., 2014), social platforms (Kane, 2015, Majlah, 2012), internet-based applications (Kaplan and Haenlein, 2010), tools (Cooper, 2014), digital technologies (McKinsey, 2013) etc.

Keeping in mind that Web 2.0 does not equal social media, we can move on to the discussion of the element called "content". It seems one cannot speak about social media without referring to what has become known as user generated content. A number of articles which include the term social media indicate, for example, that it allows the creation and exchange of user generated content (Kaplan and Haenlein, 2010), provides rights for creating, adding, modifying content (McKinsey, 2013), enables users to consume, contribute, share, augment content (Tuten, 2012), and similar. As mentioned before, in this sense content refers to a wide range of different types of input that can be created and published on the web. As Ahlqvist et al. (2008) note, the variety of nature of content now includes not only text, photos, music, videos, etc. but also certain fragments of information, for example, presence information or very brief comments. And this digital content can be created, stored and shared using a number of different, more easily available and transferable devices.

The last part of the social media equation, as noted by Ahlqvist et al., is in its name itself - "social". Even more than the element of "content", the necessary part of social media is the communication capabilities that it encompasses: the creation of networks and collaboration possibilities at the scale never seen before. This also means that users themselves are essential and most important for social media to exist as such and function the way it does now. If we look at the descriptions of social media provided by other authors we can see the importance of this element as well, since there is always the mention of interactivity among users (McKinsey, 2013; Kaplan and Haenlein, 2010), social networks and interactivity among them (Kane, 2015; Tuten, 2012), online communities (Kim et al., 2010), etc.

Definitions of social media found in dictionaries also include the above mentioned elements, for example, "Websites and applications that enable users to create and share content or to participate in

social networking" (Oxford Dictionaries); "Social media is the collective of online communications channels dedicated to community-based input, interaction, content-sharing and collaboration" (TechTarget online dictionary); "Forms of electronic communication /…/ through which users create online communities to share information, ideas, personal messages, and other content (Merriam-Webster Dictionary). The reason we look at these definitions is to stress the importance of understanding the elements of social media as opposed to having a precise explanation of what it is. This is also true when we speak about different tools of social media, since their functioning and usage is also shaped by continues progress in ICT and the development of the Web.

1.1.2. The Variety of Social Media

We will now provide a short overview of different approaches to social media, so as to illustrate how the presented elements work. Then we will focus on social networking – so far the most prominent social media tool.

The various forms and types of social media are once again difficult to categorise, since their grouping, first of all, depends on the author and secondly, the progress mentioned before (there are already discussions about Web 3.0) is blurring the lines between possible functions and their intended usage which was previously associated only with specific social media tools (for example, YouTube was always associated with uploading and sharing of videos, however, now Facebook allows this too). Nevertheless, it seems important to mention at least a few existing categories, in order to show that social media is not only social networking, as it is sometimes carelessly assumed, it is much more.

Previously the classification of social media was simpler and authors were confident enough to group different tools/applications based on the functioning, the main content created and how it is shared, etc. For example, Can et al. (2011) prepared a guide for researchers on social media where they included a list of social media resources with a number of examples (at least several of them are no longer in service). This was later adopted in the work of Verheyden and Goeman (2013), where they chose not to focus on specific platform (due to possible disappearance or decline in popularity) and instead to work with the categorization provided by Can et al., while doing their research (see Table 1, page 14).

If we compare this classification to what is presented in the McKinsey report on the value and future of social technologies (2013), we see that a number of categories overlap with what is called by them the applications of social technologies and presented with main functions pointed out. These include: Social Networks ("Keep connected through personal and business profiles"), Blogs/Microblogs ("Publish and discuss opinions and experiences"), Rating and reviews ("Evaluate and rate products, services and experiences, share opinions"), Shared work-spaces ("Co-create

content, coordinate joined projects and task"), Media and file sharing ("Upload, share and comment on photos, videos and audio"), Social gaming ("Connect with friends and strangers to play games"), and few other (McKinsey, 2013). Yet the most extensive mapping of social media is the so called "The Conversation Prism", first introduced by a digital analyst and anthropologist Brian Solis back in 2008. The latest, forth version (released in 2013), has 26 categories for social media and around 200 examples (Solis, 2015). Once again, we see a number of categories presented before, such as Social Networks, Blogs/Microblogs, Music, Pictures, Video, Reviews and Ratings, Social Bookmarking, Wiki, etc., and some new ones, such as Enterprise Social Networks, Q & A, Social Commerce and other. Of course, the given examples of different tools vary in which category they are included and some categories are not present at all (Social gaming / Virtual worlds). This illustrates again the challenge in identifying which technologies are part of social media and which are not, and was best expressed by Kane (2014) when he claimed that the reason for this was because new features are being introduced very rapidly and different forms of social media are difficult to tell apart, because they share characteristic of prior technologies.

Table 1. Classification of Social Media Tools

Social media tool	Examples
Social bookmarking, news & social citation	Digg, Mendeley, Del.icio.us
Social networking services	Facebook, LinkedIn, MySpace
Virtual worlds	Second life
Blogging & microblogging	Wordpress, Blogger, Twitter
Document & presentation sharing	Scribd, Slideshare
Audio, photo, video	Flickr, YouTube, Spotify
Collaboration	Dropbox, Google Docs
Project management & meeting	Adobe connect, Citrix, Skype
Information management	RSS, iGoogle, Netvibes
Location	Foursquare
Internet social network	Intranet

Author: Cann et al. (2011); Source: Verheyden and Goeman, (2013)

In the face of these difficulties, other ways to look at social media are present. Kaplan and Haenlein (2010) noted that there is no single classification of social media types available, especially one that would take into account all the new applications which appear every day in cyberspace, and thus they presented their own classification scheme, based on theoretical research about media and social process. The first dimension is based on two media-related elements: social presence and media richness. Social presence varies in the degree depending on the intimacy and immediacy of the

medium, and thus "the higher the social presence, the larger the social influence that the communication partners have on each other's behaviour". Media richness (based on the theory of the same name) is assumed to differentiate in how effective the specific medium is in resolving ambiguity and uncertainty (Kaplan and Haenlein, 2010). The social dimension of social media includes the concept of self-presentation and self-disclosure. Self-presentation is about the control of the impressions a person makes on others while socially interacting and is interrelated with social disclosure, because presentations are usually made through self-disclosure: "the conscious or unconscious revelation of personal information /…/ that is consistent with the image one would like to give" (Kaplan and Haenlein, 2010). Thus, the second dimension is based on the degree of self-disclosure required and self-presentation allowed. Once combined, the two dimensions led to a classification of social media (see Table 2).

Table 2. Classification of Social Media

		Special presence/ Media richness		
		Low	Medium	High
Self-Presentation/ Self-disclosure	High	Blogs	Social networking sites (e.g., Facebook)	Virtual social worlds (e.g., Second Life)
	Low	Collaborative Projects (e.g., Wikipedia)	Content communities (e.g., YouTube)	Virtual game worlds (e.g., World of Warcraft)

Source: Kaplan and Haenlein, The challenges and opportunities of Social Media (2010)

The authors continue to explain, how each application scores lower or higher in respect to social presence/media richness and self-presentation/self-disclosure allowed or required. For example, social networking sites allow more various media content to be shared compared to blogs and more self-disclosure than content communities, because the latter is usually focused on specific content domains. We will come back to this classification once we speak about the opportunities and challenges presented by social networking in the context of organizations. However, we should note, that even though this classification seems less prone to be affected by the rapid development of each tool and broadens our understanding of social media, it is nonetheless becoming more difficult to place each tool into a single box: a number of features are crossing over from one application to another (for example, the amount of information presented about one-self) and the use of applications is becoming more interconnected (for example, a personal blog and a Facebook page of a journalist). Thus the classification might depend on the actions of individual user.

A completely different look at social media is one where there is no classification of tools provided, but instead the focus is on its features and the affordances they offer for the user. Treem

and Leonardi (2012) note the problem of social media definitions being either too broad to separate social media from other forms of computer mediated communication, or, on the contrary, focused too much on various social media applications and what they do or do not. Their research is based on the affordances approach which is, generally speaking, about how one perceives his or her environment. They state that the features of a technological artefact (either hardware of software), which are in sum referred to as "materiality", exist independent of people, however, "*because people come to materiality with diverse goals, they perceive a technology as affording distinct possibilities for action*" and these affordances may "*change across different contexts even though its materiality does not*" (Treem and Leonardi, 2012). This view towards social media is then explored by Treem and Leonardi in the organizational context and we will come back to their research while discussing the use of enterprise social networking tools in organizations, however, it seems an important notion to keep in mind, that, as the authors put it: "…*affordances of one technology are often the same or similar across diverse organizational settings because the material features of the technology place limits on the kinds of interpretations people can form of it and the uses to which it can be put. /.../ defining social media by describing what kinds of behaviors they typically afford across various organizations is one way in which researchers can transcend the particularities of any technology or its features, and focus on communicative outcomes that are important to organizational researchers*."

Before moving on to the discussion of social networking as a prominent tool of social media and later on to its use in organizations, few final notes regarding the concept of social media. Social media is included in the description of social technologies, which are presented in length in McKinsey report (2013), however, we felt social technologies to be a somewhat broader term and usually used in different contexts, thus even though we sometimes speak of social media technologies this should not be automatically understood as meaning social technologies in general. Also, it seems worth mentioning that according to the social media guide for researchers (Can et al., 2011), which we already discussed, the term "social media" is more often used to describe the whole phenomena as such, while "social media tools" to refer to technologies, however, they both are often used interchangeably. As for our research, based on the analysis of the concept of social media done so far, one can already grasp some characteristics of social networking and its relation to other social media tools, as well as the many different ways to approach this subject. With this in mind, we will now present an overview of online social networking.

1.1.3. Online Social Networking: History, Main features and Current Trends

As of this writing, there are more than 150 active social networking sites (hereafter SNSs), dating websites excluded (based on the list by Toth, 2015). It is estimated, that in year 2016, there will be already 2.13 billion of active social network users around the globe, compared to 1.4 billion in 2012

(Statista.com, 2015). These figures are expected to grow as mobile device usage and smartphone social networks increasingly gain traction. Twenty most popular networks worldwide (in 2015) include social networking sites such as Facebook, which was the first social network to surpass 1 billion registered accounts, photo-sharing application Instagram (over 400 million monthly active accounts), Twitter (more than 316 million users), LinkedIn (more than 97 million active users, 297 million members) and others (Statista.com, 2015). In the case of Lithuania, there were more than 1.24 million active Facebook users recorded at the beginning of 2014 (Kemp, 2015). Social networking and blogging sites increasingly account for the most time spent on the internet in various countries (Nielson, 2011; McKinsey, 2012; Satista.com, 2015). These statistics are even more impressive if we consider that SNSs we are used to today were introduced less then fifteen years ago. We will try to look at the historical development of online social networking while focusing on how the introduction of new features went along with the advance and increasing number of various social networking sites available.

The start of SNSs can be traced back to first users of the Internet when the so called bulletin boards and Usanet groups were established in 1978, mostly by computer programmers and enthusiasts to communicate by exchanging text based data about specific topics (focused on technology, computer science and their common interests). However, these sites were mainly used by people who either had a vast knowledge of technology or had a great interest in it, and thus did not become very popular with the majority of population. Almost two decades later, in 1997, AOL Instant Messenger was launched, which gave users a possibility to freely chat with friends and made instant messaging popular. SixDegrees.com was launched the same year, and was among the first to introduce such options as to create a profile and surf other users' profiles, to invite friends and to organize groups. What distinguished such sites as SixDegrees.com or Classmates.com (created for reconnecting people who went to school together) from earlier community messaging sites was how it made user's networks visible to other. Few other sites at that time went for sole niche, specific demographics driven markets, for example, AsianAvenue.com, BlackPlanet.com or the Hispanic-oriented MiGente.com (all three of them still exist today). The new millennium gave rise to what can be named as modern SNSs: Friendster, LinkedIn, MySpace and Facebook. Friendster, launched in 2002, promoted the idea that "a rich online community can exist only between people who truly have common bonds" (The history of social networking, 2015) and has acquired 3 million users within its first three months, thus showing the world there was certainly a demand for this type of service. MySpace (launched in 2004) was basically a clone of Friendster; however, it gave users more freedom in customisation and a hipper, more feature filled online environment. LinkedIn, in contrast, took a more serious and business-like approach to social networking and since its launch in 2003, has been focused on connecting business people with other professionals. Facebook was first launched in 2004

as an exclusive networking service for Harvard University and remained a campus-oriented site until 2006, when it finally became open to general public. Over the years Facebook introduced such features as News feed (a sort of constantly updated list of the activity of ones friends or from the pages one is following), Facebook Platform (allowing third-party developers to use the site as a platform for creating applications), Facebook Connect (enabling users to log onto third-party websites, applications, etc. using existing Facebook account), Timeline (profile pages were adopted to Timeline layout, meaning all photos, videos, and posts of a user were now displayed according to when they were created) and such applications as Events, Places, Notifications, etc. All of them are associated one way or another with the success of Facebook and since then seen in other sites as well. However, the main idea that this particular site has promoted from the very beginning was openness and honesty, sharing real identities and real data about one-self (Kirkpatrick, 2010). A more complete presentation of key dates in the development and increasing influence of social media in general and social networking in particular is provided by J. Wood and by Digitaltrends.com staff members (both websites are constantly updated). The reason for presenting a brief history of SNSs, was to show how even though features do wary across different SNSs and transform during the years, there are some that to this day are still considered as an integral part of the majority, if not all, of online social networking sites and applications.

The core features of social networking were described by Boyd and Ellison, in 2008 and later summarized into several categories and still used by Kane et al. in 2014. According to Boyd and Ellison (2008), despite a variety of technical features implemented, SNSs first and foremost consist of visible profiles, that display articulated list of other users of the system with whom one has a relationship (popular labels for these relationships are "Friends", "Contacts" or "Fans"). These profiles are unique self-presentation pages, basically generated by the system while using the user's input: a digital profile is generated using individual's answers to such questions as name, age, location, interests, "about me" and similar. Users are often encouraged to upload a profile photo and depending on the site, they are allowed to modify their profile's look by adding multimedia content, using profile enhancing applications, etc. After creating a profile, users identify others in the system with whom they have a relationship: most of SNSs require a bi-directional confirmation for a relationship, but in some, one-directional ties exist also (labelled as "Fans" or "Followers"). The display of these relation ties to the public is a key component of SNSs. Users can view and traverse their own list of contacts and the lists made by others and to access profiles of other system users simply by clicking on a link. In addition, most of SNSs employ technical features which allow users to comment on their contacts' profile pages and/or to exchange private messages.

The importance of above mentioned features can be illustrated by such examples as sites which started as instant messaging service (QQ in China), ethnic community sites (AsianAvenue, MiGente),

discussion forum tools (Cyworld in Korea) or blogging services (Skyblog in France), and after implementing SNS like features, were re-launched with a changed structure and became widespread (Boyd and Ellison, 2008). This corresponds with what was pointed out in McKinsey report as the fact that "almost any digital technology can be made "social" through adding the ability for people to connect, comment or share" (McKinsey, 2012). Nonetheless, one must remember that such features as profiles, relation ties lists, comments and messaging vary across SNSs: e.g., whether the profiles and relation ties lists are visible to the public or restricted to members of a system, what choices users have in displaying personal information, etc.

With the development of ICTs, more applications could be added to SNSs and thus more features were available to users. Some SNSs now allow users to add digital photos and/or videos; others have built-in blogging or instant messaging. This brings as back to the discussion about the variety of social media and the difficulties with trying to differentiate various social media tools. The features initially associated mainly with SNS are becoming part of other social media tools (for instance, users sharing the same musical interests form groups on YouTube or "follow" other users' channels), while the variety of content that is possible to create and share on previously text-based SNSs is increasing as well (for example, new applications and features allow various collaborative activities or gaming). This integration of various features and growing capabilities of different tools could in part explain the general confusion around the difference between the terms social media and social networking.

Alongside with changes within SNSs, there is a constant increase in a number of SNSs dedicated to niche communities and narrower audiences. These are various activity driven sites (Couchsurfing), identity driven sites (BlackPlanet), affiliation-focused (MyChurch) or occupation specific sites (Doximity, for U.S. physicians only), which also tend to be smaller, because of their target demographic specifics. And as the appeal of social media grew and individuals from different demographics have integrated social networking into their daily activities, its use inevitably diffused into such areas as politics, education and business. While the adoption rate of SNS in organizations was half the rate of private consumers, the number of enterprises adopting various social media tools, including SNSs, is increasing exponentially (McKinsey, 2012; Ahlqvist, 2008). This brings us to the following discussion regarding the use of social networking in the organizational setting and the emergence of enterprise social networking tools.

1.1.4. Enterprise Social Networking: Tools for Organizations

Leonardi et al. (2013) described three primary paths for the emergence of enterprise social media in organizational contexts: 1) use of publically available social networking and microblogging sites, 2) in-house developed proprietary solutions (often built as prototypes by computer and information technology companies), or 3) private implementation of open source or proprietary software (installed

on a company's own servers or acquired as a hosted software service).

Before publically available social networking sites allowed business pages, many organizations already started to use popular social networking sites, mostly to communicate with external stakeholders, for marketing, sales and customer-facing innovations (McKinsey, 2012; Verheyden and Goeman, 2013; Leonardi et al., 2013; Majlath, 2012;). In addition, these public sites started to be used internally by the employees themselves to connect with their co-workers, however, the internal use of these sites stayed relatively low and even raised concerns regarding proprietary information leakage, hierarchy problems (managers becoming friends with employees), personal and work boundary issues and other (Leonardi et al., 2013; Boyd and Ellison, 2008).

Naturally, hardware and software computer companies, and information technology developers, had an interest in understanding how organizations could employ new computer-based social media applications. They have developed their own, custom-built systems, which could increase productivity and knowledge sharing between their workers and at the same time be used for research about potential future products and its' features. An example of this type of solution includes the Beehive system, developed at IBM, which encompassed many features from popular SNSs, but was restricted to IBM employees. Beehive and other systems (developed by HP, Microsoft and similar companies) served as research prototypes with limited life span: after their use was discontinued, a number of features and practices were incorporated into other internal systems and commercial products (IBM now offers Connections, Microsoft – Sharepoint, etc.) (Leonardi et al., 2013).

The most common emergence of enterprise social media was through the in-house implementation of private applications that are not open to external audiences. This started with open source social software, established on company's intranets, for example, wikis and blogs, which were free and rather simple to install. However, many vendors started to offer other solutions, which could be either installed on company servers or hosted in the cloud. These so called enterprise social software tools, typically include a variety of social media functionality (that is blogs, wikis, status updates, microblogs), collaboration tools (uploading and sharing digital content), and such social networking features as profiles, ability to connect with or follow someone, etc. (Leonardi et al., 2013). Such integrated enterprise social software services are used by some of the largest organizations in the world, including Proctor and Gamble, Dow, American Express, Philips, Macy's, Nielsen, Deloitte and hundreds of others. Examples of these social networking and collaboration tools used by large organizations include Microsoft's Sharepoint, Yammer (acquired by Microsoft few years ago), Jive (from Jive Software), Oracle's Social Network, Tibbr, Socialcast, Ingage Networks and the already mentioned IBM's Connections.

Taking into consideration the novelty and complexity of the social media phenomena, we will now discuss the term enterprise social networking in the context of our study and in comparison to

works of other scholars. Firstly, for our definition of enterprise social networking tools we chose to use the description provided by Leonardi et al. (2013), as we believe it encompasses all of the main features of social networking and takes into account the particular surrounding it is used in: *"Web-based platforms that allow workers to (1) communicate messages with specific coworkers or broadcast messages to everyone in the organization, (2) articulate a list of coworkers with whom they share a connection, (3) post, edit, and sort text and files linked to themselves or others, and (4) view the messages, connections, text, and files communicated, articulated, posted, edited and sorted by anyone else in the organization at any time of their choosing*."

One can notice, that a number of communication technologies already common in organizations allow one of the first three above mentioned activities. Email, Q&A forums and message boards allow exchanging messages, corporate directories can auto-populate lists of team members, contemporary knowledge management systems allow employees to post documents, images and other files, which then can be read by others; however, as Leonardi et al. (2013) pointed out, what makes enterprise social media unique is that all of those activities can be done in one place and they are recorded, stored and available to view anytime in the future by other co-workers.

In regards to using the term enterprise social networking instead of enterprise social media, it seems sufficient to mention, that even though according to Leonardi et al. (2013) it makes "less sense to distinguish between tools such as social networking, micro-blogging, and social tagging, and more sense to treat these individual tools as part of integrated enterprise social media platform", we believe that their definition still first and foremost identifies the activities usually associated with social networking. Also, as we have discussed a number of times already, the continuing development of social technologies is blurring the lines between the distinctive features of tools used for communication and collaboration, thus there is no single definition used by scholars to refer to the use of social media in organizations: according to some authors, email is considered as a type of enterprise social media (Kane, 2015), while according to others, mainly organizational social software platforms deserve this title (Kugler and Smolnik, 2014).

A more detailed review and analysis of various terms concerning social media use in organizations would not benefit this study any further; however, we believe the above discussion is sufficient to understand the concept of enterprise social networking tools. We will now turn to the discussion of the actual use of ESN tools in organizational context.

1.2. Use of Enterprise Social Networking Tools

In this section, the use of ESN is presented following its emergence and value recognition in organizational context, supported by few theoretical frameworks for classifying various ESN use scenarios. At the end, few study cases involving the use of one of the most prominent ESN tools,

Yammer, are presented, together with the examples of ESN tools used in Lithuania.

1.2.1. Enterprise Social Networking in Organizations

The analysis of the actual ESN use and its effects in organizations was challenging in the similar ways as when defining the concept of ESN itself: due to researchers' personal approach to the subject, social networking was sometimes treated as the whole of social media or social media itself was not defined clearly, and the discussion of results would not differentiate its various types (author could be speaking about virtual worlds or about microblogging). Nonetheless, as we already discovered in the previous section, ESN first emerged within business organizations as the use of popular public social networks. This use was primarily oriented towards externally directed communications, however, when McKinsey published their report in 2012 ("Unlocking the value and productivity through social media"), they identified a number of areas holding much potential for value creation in enterprises, which already included: 1) external communication; 2) internal communication; 3) knowledge sharing and 4) recruitments. Verheyden and Goeman (2013) conducted a research among knowledge sharing networking organizations regarding their use of various social media types in these four areas. On one hand, their results indicated that social networking sites were among the most popular tools used and that most of the organizations still focused on leveraging social media to communicate with external stakeholders. What is important, however, is that their results also showed that other social media tools, such as blogging, microblogging services and internal (social) networks were also widely used and mostly for internal communication purposes. Actually, already in 2008, social media was analysed from business perspective by Ahlqvist et al. and various social media tools were classified according to the business opportunities they could provide. Enterprise social networking sites were classified as *enablers*, meaning that they could be used to accomplish a process or function within a business.

One of these functions was internal communication via e-mails. According to Edmunds and Morris, already back in year 2000, e-mail was considered as one of the main forms of business communications, however, at the same time, the quantity of e-mails employees received and had to respond to was quoted as the main cause of information overload. Various internal social platforms were seen as a possible solution to this situation. In fact, IBM Software Group's knowledge management consultant Luis Suarez has managed to reduce his use of e-mail by 98 per cent since 2008 to 2012 by using internal social networks. He explained that these internal platforms made it easier for him to communicate with colleagues, monitor ongoing discussions, share files and pertinent content, etc. Similarly, at the end of 2011, Thierry Breton, chief executive of IT services company Atos, has publically announced, that his company will become e-mail-free internally within three years (Atos boss Thierry Breton defends his internal email ban, 2011). These type of stories illustrate

how enterprises are changing in regards to their main forms of internal communication, while giving way to various new forms of social media, including social networking.

However, as discussed before, it was not only the possibilities seen by large organizations in the use of social networking for internal communication and knowledge sharing activities, that has affected the emergence of what we consider as a modern day enterprise social networking. The issues raised due to the use of public social networking sites within work environment were resolved once various new enterprise social networking platforms were introduced as a reliable, private, secure and work orientated environments. As Dwyyer, Hiltz and Passerini (2007) argued "trust and usage goals may affect what people are willing to share" (in Boyd and Ellison, 2008).

Once the new ESN tools spread across various organizations worldwide and it became obvious that they are here to stay, new research came out, trying to distinguish, evaluate and put into some sort of framework all the possible uses and changes that these new technologies can bring. Kane (2015) presents a platform-independent framework for considering capabilities of enterprise social media. According to him, social media platforms may differ in their features; however, they all have two capabilities which can be beneficial for organizations: "the ability to establish and manage social networks in novel ways" and "the ability to find and access digital content". These two capabilities can influence organizations in two ways: they can influence employee performance (by enabling more effective interaction) or they can constrain employee behaviour (due to specific system design). When put together, these aspects provide a systematic framework and questions to consider about any type of enterprise social media tool (see Table 3).

Table 3. Framework for Considering How Social Media Affects Organizations

	Establish Networks	**Access Content**
How does platform design constrain user behaviour?	1. Consider how platform design affects the way in which people interact	2. Consider how platform design affects the way people share and access content
How does platform use affect employee performance?	3. Consider how people will use the platform to network more or less effectively	4. Consider how people will share and protect content more or less effectively

Source: Enterprise Social Media, 2015

Following these questions, the author describes how even the smallest difference between tools can affect the way content is shared and networks are created. He discusses such questions as the proximity of users in geographical or electronic space and its effect on new hire assimilation; the features allowing to manage negative relationships (such as blocking or hiding them, which may be considered inappropriate); issues with profile authenticity (employees keeping real-world identity vs. the impact of digital profile for their careers). Yammer, for example, limits individual's network to other users who have the same corporate email domain, while MITRE Corporation uses an internal

social media platform which allows its employees to invite external business partners to join – this feature alone affects what the platforms can be used for.

Partly based on Kane's previous work and the various enterprise social software use scenarios described, Kugler and Smolnik (2014) proposed a typology of user behaviours related to employees' use of various enterprise social software applications, including social networking sites. After validating data from 233 employees in the post-acceptance stage, the authors have presented a framework based on the type of employee's interaction with an enterprise social software platform. The four categories of behaviours include 1) *Consumptive use* (extent to which the platform is used to acquire knowledge), 2) *Contributive use* (extent to which the platform is used to contribute knowledge), 3) *Hedonic use* (extent to which employees use the platform for entertainment), and 4) *Social use* (extent to which employees use the platform to establish and maintain social relation with their co-workers) (Kugler and Smolnik, 2014).

Leonardi et al. (2013), following the affordances approach, discuss the ESN uses in organization and its different roles based on the visibility and persistence affordances. According to them, when speaking about enterprise social media, the users have the ability "to make their behaviours, knowledge, preferences, and communication network connections that were once invisible (or hard to see) visible to others in the organization" and this information and communication is persistent, since "it remains accessible in the same form as the original display after the initial point of presentation" (Leonardi and Treem, 2012). Their extensive review of the literature suggests, that the role ESM plays within organizations could be described through three metaphors: 1) ESM as a Leaky Pipe (information and communication data is visible to people who were not involved); 2) ESM as an Echo Chamber (since it enables finding people and content with similar interests, which may also reduce exposure to new ideas and even cooperation); and 3) ESM as a Social Lubricant (easing connections and communication to get work done quicker). The metaphors represent how the affordances of visibility and persistence provide enhanced opportunities for social learning within organizations, which in turn has implications for common processes within organizations: Social Capital Formation, Boundary Work, Attention and Analytics (Leonardi et al. 2013). Viewed from the Leaky Pipe perspective, ESM can bring a number of advantages: it is easier for employees to keep up with what others are doing, to cross more knowledge boundaries, attend to information from someone you would not normally talk to, see more connections between people and forge alliances, while managers can create opportunities for connecting new people (since existing communication is visible). However, awareness that people from outside of a known community (or management) are watching and can see your communication and partners, may prevent someone from contributing, so as not to undermine ones position, it can result in more generic communication, and in the case of too many information inputs, can mean cognitive overload and even discontinuance of ESM altogether.

More advantages and disadvantages of using enterprise social media in organizations are presented when studied from the other two ESM metaphors, for example, immediate feedback, stronger sense of relationship or belonging when doing similar tasks (even miles apart), more trusted information, easier to initiate conversation, etc. For our study, we believe the above mentioned variety already illustrated a number of ways how ESN can and already is used in organizations, and how this usage is difficult to put in one framework and evaluated, due to increasing technical possibilities and the different personal approach (for example, employee vs manager).

Increasing ESN usage possibilities were anticipated already in 2011, by Burns et al., in their work "*Transforming Enterprise Communications through the Blending of Social Networking and Unified Communication*". They presented an experimental social networking application for communication and collaboration, used in Alcatel-Lucent Company, and described how employees' communication can be changed by blending together the technology of social networking with the capability to digitize conversation data. They describe a possibility to go beyond enabling social networking sites with such features as "click to call/conference/message" and to change how we access and manage conversations: they could be treated as "social objects" that can be tagged, followed, searched in various communication applications. In part this is already happening with such applications as Facebook, LinkedIn, Twitter, Foursquare, etc., however, from their article, we can see how ESN tools with these and much more enhanced capabilities, were once again envisioned, created and used for such social behaviours in organizations as 1) building collective knowledge; 2) communication 3) awareness and 4) discovery. This brings us back the full circle as to how various ESN tools emerged in the first place, and we will now turn to few examples of the actual use of one of the most prominent ESN tools at the moment, Yammer, as well address the situation regarding ESN use in organizations in Lithuania.

1.2.2. Use of Enterprise Social Networking Tools Worldwide and in Lithuania

ESN tools give organizations an opportunity to benefit from a number of social media features, which we have already discussed, however, their use varies across different contexts as well. Due to the initial popularity of various tools developed for closed networks, there have been a number of new tools developed that are exclusive for employees. One of the most widely known ESN tool is Yammer, founded in 2008, purchased by Microsoft in 2012, and since then continuously adopted by more and more companies. Over 500,000 organizations worldwide are using Yammer for collaboration and communication, including the majority of Fortune 500 companies (Our Company Is Going to Yammer. You've Got to Be Kidding, n.d.). From the very beginning, Yammer was envisioned and built as a social networking software that could change the way people work, and Microsoft has recently included it in its Office 365 (Yammer.com). Yammer still remains an open

and free to use software, were money is charged only for additional features, functionality, etc. This allows to see and study the use of Yammer in various different settings. For example, Yammer, was already successfully used in educational context. Pinto (2014) presented a case of Yammer in Higher education, were it was used for facilitating communication and collaboration among project teams (the focus on project teams was based on the growing emphasis for communication fluency among firms and companies, were work is increasingly crossing national boundaries and online collaboration activities are becoming a routine). Their correlation analysis showed that the more time upper-level marketing students spent using Yammer, the more effective they perceived their team communication (Pinto, 2014). This research can be compared to the work of Tuten, who just a couple of years earlier (2012), investigated the use of various social media tools among marketing educators and reported that such social networking tools as Yammer, though rarely, were already used for educational purposes. An interesting case of incorporating Yammer into teaching was described by Miller and France (2013), where they used this tool for a real-time emergency simulation: a student, "Hazard Analyst Officer", had to use Yammer and his/her knowledge to provide appropriate responses to questions from other students, posing as individuals and organizations, in the emergency response scenario for an eruption of Mt Vesuvius. The students reflected on the use of these type of tools as a stressful, but realistic learning experience, and though some of them were concerned about their lack of experience in using Yammer, this was expressed only before the actual simulation (Miller and France, 2013).

The use of ESN tools is still mostly associated with a business setting, when, for example, large, international companies incorporate social media tools for internal communication, collaboration projects and logistics related activities. An example of this type of implementation was researched by Maciejewski (2011), who collected data for 175 days from a global company, specializing in mobile marketing and software, which has started to use Yammer for communication in their off-shore company. The adoption of Yammer, even before reaching critical mass, was reported to enhance communication paths and reduced the level of noise in other communication channels (Maciejewski, 2011). Considering the Lithuanian context, to the best of our knowledge, there were no studies conducted yet, with regards to the use of ESN tools as defined in our work. However, it was possible to gather some information, related to the use of various ESN tools. Firstly, within a website www.3erdve.lt a social network Yammer was integrated as a personal and safe platform for communication between all Lithuanian libraries' employees ("Bibliotekininkų portalo www.3erdve.lt pristatymas", 2014). Also, an online journal about Technologies has implemented Yammer for their use and wrote an article presenting these type of tools (Išimtinai įmonėms skirtas socialinis tinklas „Yammer", 2014). At least several companies are known to use ESN tools as part of using Microsoft Windows as their operating system (Western Union, Barclays). Finally, few suppliers online were

found claiming to provide Enterprise Social Networking capabilities (Beedo, IBO and Boxi), however, they seemed to be either intended for collaboration and file storage and lacked the element of communities (Beedo and IBO), or were actually providing an intranet service. As ESN is intended for private use by organizations and usually require a valid company's email to register, further research into their functionality and abilities was limited.

To summarize all that was presented, we can see that ESN tools incorporate main principles of social networking and social media in general: user generated content, new possibilities of creating communities and networks, and the technologies which enable users and content to come together, while focusing on the organizational environment. The development and spread of ICTs not only enabled the emergence of ESN, but still continues to enhance its features. The actual use of enterprise social networking tools has the potential to affect existing organizational structure and communication patterns and vice versa - existing organizational structure can determine how enterprise social networking tools are used and perceived. First and foremost, however, ESN tools have to be successfully implemented within organization. With this in mind, we will now turn to the innovation adoption decision process.

2. THE ADOPTION PROCESS OF SOCIAL NETWORKING TOOLS IN ORGANIZATIONS

In this chapter we will present diffusion of innovation theory, technology acceptance model and few other most relevant theoretical concepts used for explaining user adoption of new technologies. We will thus present the theoretical framework and research model for our study and in the last section discuss the research done so far regarding social networking tools adoption within organizations.

2.1. Main Theoretical models for Information and Communication Technology Innovation Adoption

For social networking tools to be effective within an organization they have to first of all be successfully adopted by the intended users. There are a number of theories or models available that look into the adoption of various technological innovations and focus on different aspects. For our study we chose Everett Rogers' diffusion of innovation (hereafter DOI) theory as a background for several reasons. Firstly, we wanted to look at the overall innovation adoption process: we believe this was more appropriate for case study approach, because it takes into account more variables, such as prior conditions, social context, communication channels, etc. Secondly, DOI theory allows two level analysis of the innovation decision process which is what we often have in the organizational settings: after an enterprise decides to introduce a new technology, unless its use is mandatory, every employee is left to choose for himself whether he or she will use the particular innovation or not. And finally, Rogers' innovation diffusion theory is considered to be one of the most applied innovation theories and is successfully used with various new ICTs up to this day (e-mail, mobile phones, etc.).

2.1.1. Diffusion of Innovation Theory: Key Elements and Definitions

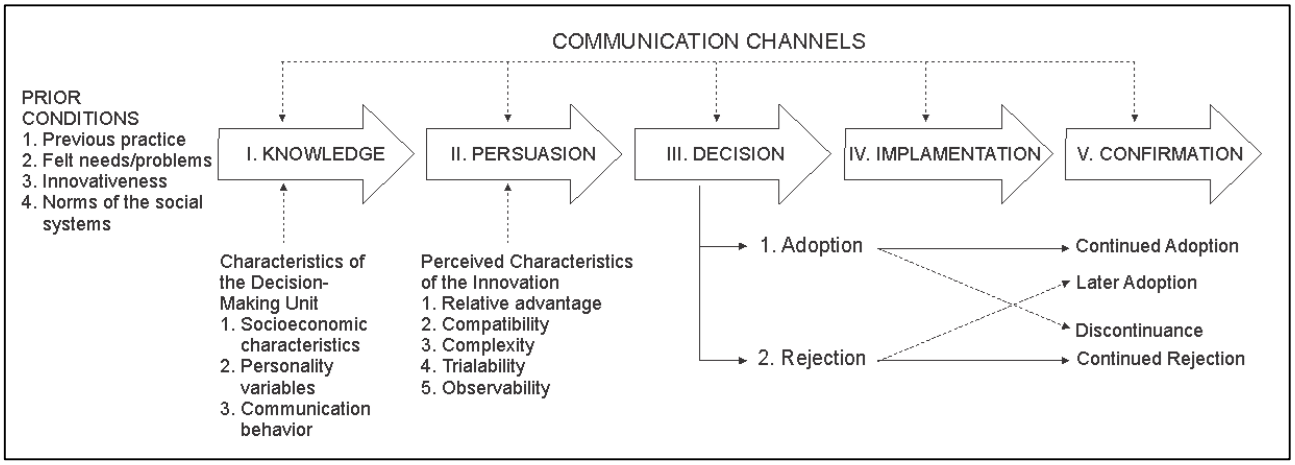
DOI theory was developed and first introduced by Rogers in 1962 and since then applied by innovation diffusion researchers in a number of disciplines, such as Public Health (Woodward et al., 2013), Rural Sociology (Gollakota and Goshi, 2011), Education (Mustafa and Al-Mothana , 2013; Xu, 2013), Marketing and Management (Moghavvemi et al., 2011), Communication (Sharma, 2008) and others. An innovation is "an idea, practice, or object that is perceived as new by the individual or other unit of adoption" and diffusion is described as "the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 2003). These definitions indicate that the adopters of diffusion can be individuals, groups, or organizations; that process through which an innovation is adopted is communication; the context of innovation is social system; and it is a change over time. An innovation is adopted through innovation decision process which occurs when "an individual (or other decision making unit) passes through from gaining initial knowledge of an innovation, to forming and attitude toward the innovation, to making a decision to adopt or reject, to implementation of the new idea and to confirmation of this

decision" (Rogers, 2003). As shown in Figure 3 (page 30), during this process a number of variables determine the so called rate of adoption (the relative speed with which an innovation is adopted) and are associated with different stages. At the *knowledge stage*, "when an individual is exposed to the innovation's existence and gains some understanding of how it functions" (Rogers, 2003), the individual characteristic of the decision-maker, such as their socio-economic and personality variables and communication behaviours, determine whether the process will continue to the next stages. In the *persuasion stage*, the perceived characteristic of the innovation will determine whether an individual forms a favourable or unfavourable attitude towards the particular innovation. This stage is generally considered most significant and has been studied most frequently, with the results indicating that from 49 to 87 per cent of the variance in the rate of adoption can be explained by the five attributes of an innovation perceived by adopters. Based on Rogers (2003), these attributes are:

- Relative advantage: the degree to which an innovation is perceived as better than the idea it supersedes. The underlying principle is that the greater the perceived relative advantage of an innovation, the more rapid its rate of adoption;
- Compatibility: the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters;
- Complexity: the degree to which an innovation is perceived as difficult to understand and use;
- Trialability: the degree to which an innovation may be experimented with on a limited basis. If an innovation is trialable, it results in less uncertainty for adoption;
- Observability: the degree to which the results of an innovation are visible to others. The easier it is for individuals to see the results of an innovation, the more likely they are to adopt.

The process of innovation decision thus comes to the actual *decision stage*, when an individual makes a choice to adopt or reject the innovation. It is then followed by the *implementation stage* when an innovation is put into use (or not) and afterwards by the *confirmation stage*, where the previous decision is either reinforced and the innovation is still adopted/rejected, or there is a reverse decision made and we have a case of later adoption or discontinuance. Discontinuance (deciding to reject an innovation after adopting it) can occur either because it is decided to adopt an even better idea, which supersedes the first one, or as result of dissatisfaction with the performance of the initial idea (Rogers, 2003). As can be seen from Figure 3, the communication channels play a role in each of innovation-decision stages. Rogers describes the different effects of mass media versus interpersonal communication channels: mass media channels (means of transmitting messages that enable one or few individuals to reach many) are considered to be more important at the knowledge stage and interpersonal channels (face to face exchange between two or more individuals) are seen as more important at the persuasion stage (Rogers, 2003).

Figure 3. A Model of Five Stages in the Innovation-Decision Process



Source: Rogers, Diffusion of innovations (2003)

Few other important determinants for the rate of innovation adoption include innovation decision type, opinion and change agents' leadership and nature of the social system.

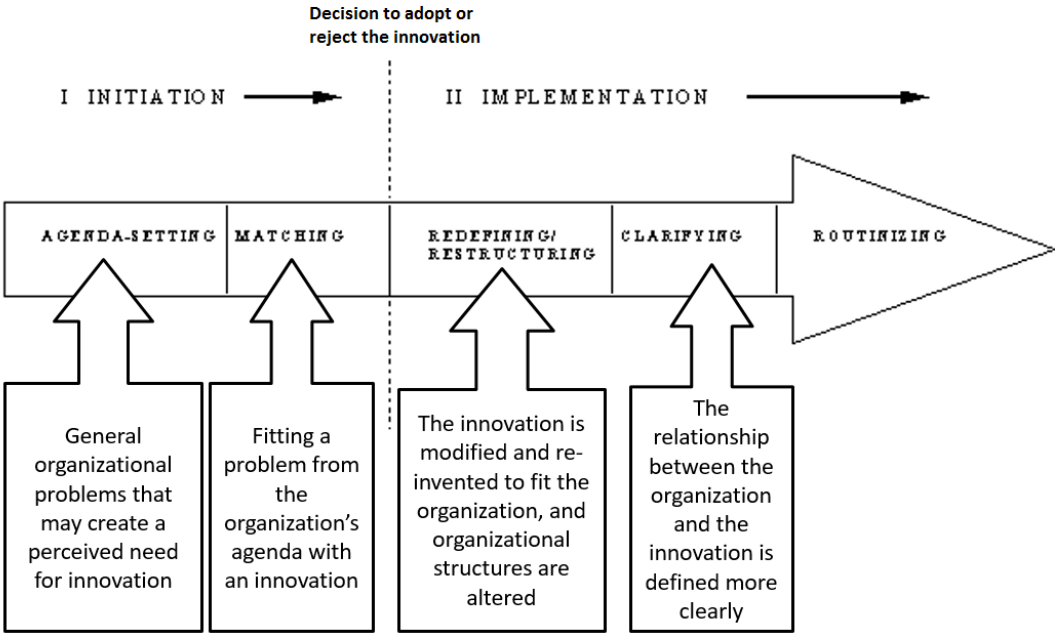
Innovation decision type is mostly important in the setting were the decision-maker is more than one individual within a system. Often this happens in organizations, where three types of innovation decision choices are available: optional, collective and authority. *Optional innovation-decision* means an individual has a choice to adopt or reject an innovation independently from the decisions by other members of the system. *Collective innovation-decision* choices are made by consensus among the members and once the decision is reached, each individual has to act accordingly. *Authority innovation-decisions* mean that relatively few individual in a system (who possess power, high social status, or technical expertise) choose to adopt or reject an innovation and the other organization's members must comply. There is also the so called *contingent innovation-decision*, which is a combination of two or more of the previous three types of innovation decisions, for example, when a collective decision is made in the organisation to purchase a new piece of equipment and only then an employee has an optional decision to adopt or reject a new procedure (Rogers, 2003).

The nature of social system includes social system norms and the degree of communication network interconnectedness, both of which affect innovation's rate of adoption, together with the degree of opinion leadership and the efforts of change agent. Change agent is an individual who influences innovation-decisions in a desirable direction, while an opinion leadership is "the degree to which an individual is able to influence informally other individual's behaviour" (Rogers, 2003). The efforts of change agent's promotion are most visible when the opinion leaders adopt the innovation (in most systems this occurs between 3 and 16 per cent adoption), because this means that critical mass is more likely to be reached. The point of critical mass occurs when enough individuals adopt the innovation for it to continue to be adopted without much effort – the rate of adoption becomes self-sustaining. This is especially important for interactive innovations (for example, e-mail), because

with each additional individual adoption the innovation becomes increasingly beneficial both for future adopters and for each previous adopter (Rogers, 2003; Frambach and Schillewaert, 1999).

Following Rogers' DOI theory one can look at the innovation adoption at the individual or organizational level. Rogers' DOI theory evolved in this regard, since throughout the five editions of his book (from 1962 to 2003), the author included increasingly more information and even provided a separate chapter to speak about innovations in organizations and to present a different model for innovation adoption in organizations (see Figure 4). The innovation process here is divided into two subprocesses and consists of five sequential stages, meaning that each stage has to be completed for innovation process to be undertaken. The first subprocess is called initiation, it consists of the agenda-setting stage and the matching stage, and is described as "all of the information gathering, conceptualizing, and planning for the adoption of an innovation" (Rogers, 2003). This first broad activity leads to a decision to adopt the innovation, which separates the two initiation stages from the next three stages of implementation. Implementation subprocess is described as "all the events, actions, and decisions involved in putting an innovation into use" and consists of redefining/restructuring stage, clarifying stage and routinizing stage (please see the full model with more detailed description in Figure 4).

Figure 4. Five Stages in the Innovation Process in Organizations



Source: Rogers, Diffusion of innovations (2003)

The model for innovation process in organizations was introduced because Rogers believed there were valuable insights about innovation process and human behaviour to be gained from investigating innovation process in organizations and not just focusing on a set of characteristics describing an

organization as innovative. Organization according to Rogers (2003) is "a stable system of individuals who work together to achieve common goals through a hierarchy of ranks and a division of labour". One reason the study of organizational innovativeness needed a new approach, was due to doubts that gathering data only from a few individuals at the top in hierarchy did not always represent the actual innovation behaviour of the entire organization. The model was since used to address the time required for an organization to actually identify a need for innovation, how important is the fit between an innovation and the perceived problem, how the actual implementation of an innovation can change the structure of organization by creating a need for a new organizational unit (e.g., training department), or by allowing new communication possibilities between employees and executives (e.g., introduction of e-mail).

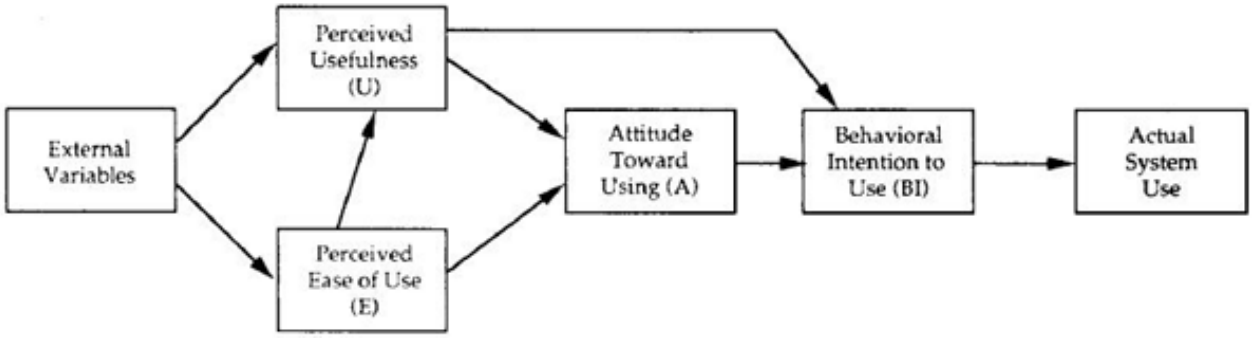
Regarding the limitation of DOI, Roger himself points out four major shortcomings of diffusion research. The first criticism, the *pro-innovation bias*, means that most diffusion research implies that innovation should not be re-invented or rejected, it should diffuse rapidly and be adopted by all members of a social system. Secondly, there is the inclination to hold an individual, and not the system an individual is part of, responsible for his or her problems, which is referred to as *individual-blame bias.* Once respondents are asked to remember the time they have adopted a new idea, a *recall problem* can occur, causing inaccuracies in research as well. Finally, diffusion of innovations can widen socioeconomic gaps between the members of a social system, adding to the *issue of equality.*

We will further discuss the innovation process in organizations later in the chapter, when we speak about the adoption of social networking in various settings, however, first we will briefly present other theoretical models which have proved to be valuable in regards to the adoption of technological innovations.

2.1.2. Models Focused on the Technology Adoption Process

The technology acceptance model (hereafter TAM) is considered the most influential and commonly employed theory in information systems and IT adoption (Lee et al., 2003). The model itself is based on the theory of reasoned action (TRA), which states that salient beliefs about one's attitude toward a particular behaviour can influence intentions and these intentions influence one's actions (according to Benbasat and Barki, 2007; Fichman, 1992). According to TAM, perceived usefulness (PU) and perceived ease of use (PEOU) determine one's attitude toward information system usage and consequently behavioural intention to use a system (see Figure 5) (Davis, 1989, Davis et al., 1989). PU is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance", and PEOU as "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989).

Figure 5. Technology Acceptance Model



Source: Davis et al., User Acceptance of Computer Technology (1989)

Over the years, a considerable amount of studies have confirmed that TAM model maintains reliability and shows consistent correlation between PU, PEOU, Behavioural intentions and Actual system use (Chuttur, 2009; Benbasat and Barki, 2007; Lee et al., 2003; Fichman, 1992). These factors make TAM a reliable and relatively easy to use model and a number of other researchers have used TAM as a basis for their own technology acceptance models, by including additional constructs such as personal innovativeness in the domain of IT (Agarwal and Prasad, 1998), trust, computer playfulness, information satisfaction, top management commitment, perceptions of external control and other (based on Benbasat and Barki, 2007; Lee et al., 2003).

Davis himself, while acknowledging TAM limitations and working together with Venkatesh, has introduced new and modified TAM models, for example, so called extended Technology Acceptance Model (TAM2), which already had subjective norms, adapted from TRA, as one of the variables (Davis and Venkatesh, 2000). Furthermore, an extensive amount of studies done using TAM have resulted in yet another model, the Unified Theory of Acceptance and Use of Technology (hereafter UTAUT), which can be described as going back to the origins of TAM, since it basically consists of social influences and facilitating conditions added to the two main constructs PU and PEOU (Davis et al., 2003; Benbasat and Barki, 2007; Chutter 2009).

Despite its wide use, the above presented models are considered to have some limitations. TAM's simplicity makes it relatively easy to use, however, due to the same simplicity TAM provides only broad information about PU and PEOU, which do not mediate all external environmental factors that may influence system adoption (system experience, level of education, age, etc.)(Chuttur, 2009). In addition, TAM does not deal with some arguably major problems concerning technology acceptance, such as innovation design and actual system usefulness (Benbasat and Barki, 2007). Finally, most of the studies using TAM or UTAUT rely on retrospective analysis and, according to Fichman (1992), the problem with retrospective analysis is that it is difficult to tell "whether adopters are currently using a technology because of favorable perceived characteristics, or whether favorable perceptions in fact emerged over the course of using the technology."

2.2. Factors Important for Social Networking Tools' Adoption in Organizations

The results of scientific literature review in regards to factors important for the adoption process of social networking tools in organizations are presented in this section. The findings will be presented following a framework developed by Frambach and Schillewaert (1999), which was developed solely for the purpose of addressing the organizational innovation adoption.

By following the theoretical models provided in DOI theory and conducting an extensive research of various studies on organizational innovation adoption in different disciplines, Frambach and Schillewaer have identified a set of determinants, which were found to influence the organizational decisions on innovation adoption. These factors can be distinguished between two levels of adoption: individual and organizational. The authors have developed a multi-level framework, which combined these two levels of innovation adoption process, and they have also introduced the notion of *intra-organizational acceptance*: "the full and actual adoption of (many) innovations in an organizational context implies that adoption also occurs within the organization, at the individual level" (Frambach and Schillewaert, 1999). We will now turn to the factors which were found important and were included in the above mentioned framework, while keeping in mind the particular innovation at hand and the results from other theoretical work.

The innovation adoption decision at the organizational level can be determined by the perceived attributes of an innovation (e.g., relative or economic advantage) and by the characteristics of the adopter itself (the size of the company, its structure and organizational innovativeness). Environmental influences such as the competitive pressure and networks externalities (e.g., how many other organizations already have the particular innovation), were found to influence the innovation adoption decision either directly or through perceived attributes of an innovation. Supplier marketing efforts (e.g., targeting) and social network (e.g., interconnectedness, sharing of information about new ideas and products) influence the adoption decision through the perceived attributes of innovation as well (Frambach and Schillewaert, 1999). Thus, taking the example of social networking, the important factors an organization would consider in regards to whether to adopt or not this type of tool, would include the perceived value this innovation could bring for the productivity or profitability of the company, whether it conforms with the company's existing values and needs, can it be tried before purchasing, are the results of using it visible, etc. The perceived usefulness was in particular associated with the enterprise owners' consideration whether to adopt social networking tools (Majlath, 2012) or an IT innovation in general (Moghavvemi et al., 2011). The size of the company was also associated with the use of various social media tools, including social networking (Verheyden and Goeman, 2013).

Frambach and Schillewaert then turn to the so called intra-organization acceptance, since

“Organizational innovations that have to be incorporated in the work process of organizational members are of little value if they are not used or complied with”, which is clearly also the case with social networking tools. The perceived attributes of innovation are at the centre of the framework again, however, here they are understood as an attitude towards an innovation (formed by perceived believes and affects held by the adopter). The importance of perceived attitudes in regards to its influence for willingness to use and the actual use of a new social media tool has been proven a number of times (Alarcón-del-Amo and Lorenzo-Romero, 2014; Hu et al., 2011). Also, the characteristics of the adopter, such as personal values, experience in work and product, etc., have been associated with the use of various ICT enabled tools, including social media (Mustafa and Al-Mothana, 2013; Korpelainen, E., & Kira, M., 2013; Venkatesh, et al., 2003). In regards to personal dispositional innovativeness, the personal innovativeness in the domain of IT (Agarwal and Prasad, 1998), was already found to have an effect on the acceptance of new information technology. The last two categories include such organizational facilitators as training, education, organizational technical support, existing control structures, and social influences (peer usage), as well as social norms or pressures (findings regarding the relevance of these variables are mixed). Once again, across scientific literature, we can find these factors being associated with the adoption and actual use of various social media tools and ICT in general (Verheyden and Goeman, 2013; Lee et al., 2003; Adam Mahmood et al., 2000; Davis et al., 1989).

The amount of research focused on the actual adoption process of social networking tools seems scarce, as it most often evaluates the variables associated with the actual use (by the individual adopters) and the purpose of usage (by the organization), however, we believe the above discussion presents well enough the number and variety of factors which can influence the adoption of various social networking tools, both at the organizational and individual level. Also, DOI theory was found to be well suited for the study of various ICTs in general and ESN tools in particular, mostly because, it takes into consideration a number of contextual factors and addresses the case of rejected or discontinued use of innovations, as well as provides separate innovation decision models for individual and for organizational level, which can also be combined into one multi-level theoretical framework.

3. INTRODUCTION TO RESEARCH "ENTERPRISE SOCIAL NETWORKING TOOL ADOPTION" METHODOLOGY

3.1. Research Design and Method Selection

For the purpose of this research a qualitative case study approach was chosen as the best option in regards to the research problem and questions formulated. Yin (2009) describes a case study as an empirical inquiry that is used in order to investigate a phenomenon within its real-life context when the boundaries between the phenomenon under investigation and its context are not defined clearly. It relies on multiple sources of evidence and can benefit from prior theoretical propositions to guide the collection and data of analysis (Yin, 2009). This can then be supported by Creswell (2003), who describes three approaches to research: quantitative, qualitative and mixed, that each differs based on its tendency towards the knowledge claims, the strategies and the data collection methods used. A case study research is thus described as the one where the researcher "explores in depth a program, an event, an activity, a process" and "collects detailed information using a variety of data collection procedures" (Stake, 1995, by Creswell, 2003). This seems to be very well suited to address what Rogers (2003) calls the problem of "pro-innovation bias". As discussed in Chapter 2, the research in diffusion of innovations appears to be prone to pro-innovation bias, such as disregarding innovation ignorance cases or underemphasizing the rejection / discontinuance of innovations, which prevents from learning about important aspects of diffusion and adoption process. The focus on studying only "successful" diffusion, which can be investigated more easily compared to rejected or discontinued innovation, has led to a state where we "know too much about innovation successes and not enough about innovation failures" (Rogers, 2003). This seems to be an important statement when taken into consideration with the fact that, according to various recent studies, rates of implementation failure in organizational change range from 50% to 90% in regards to Project Management and Information Technology (based on Decker et. al., 2012). According to Rogers (2003), the pro-innovation bias can be overcome by investigating a broader context of diffusion, by acknowledging that rejection and discontinuance happen frequently during the diffusion of innovation decision process and that it may even be a rational and appropriate decision if only the view and the situation of the adopter would be understood better.

Primarily Rogers' Diffusion of Innovation Theory was chosen as a theoretical background for this study, with the focus on the adoption decision process. Furthermore, in order to better address user acceptance of an innovation and individual intentions to use an information technology, the perspective of TAM (Davis, 1989, Davis et al., 1989) was applied also when considering results and their analysis (as described in Chapter 2, both theories have been successfully used in various ICT related research, as well as combined together into an integrated theoretical models to test, for example, employees' intentions to use E-learning systems (Lee, 2011), or IT system adoption at work

(Korpelainen and Kira (2013)).

Adoption process of ESN tool Yammer within a Lithuanian organization was first explored using qualitative methods that included organization's internal documents' analysis, previous inquiries' results analysis and semi-structured interviews with three Experts inside the organization. The chosen specialists were responsible for innovation related decisions and its implementation (their characteristic will be presented in later section). The qualitative part of this study provided a deeper understanding of the innovation diffusion process within the organization and the important factors for successful adoption. The qualitative data analysis and results were followed by quantitative data collection and analysis in the second phase of the research. The results of the qualitative part of the research together with the insights gained from scientific literature, were used to prepare a short on-line survey which was administered to all employees of the organization.

Qualitative studies are generally associated with such limitation as difficulties to generalize the findings to other settings and to maintain the level of credibility and validity required in scientific research (Baxter and Jack, 2008). These issues are addressed when describing empirical data collection and analysis process.

3.2. Setting and Participants

A medium-sized company (according to EU categorization) specializing in construction and distribution industry was chosen for this case study. Company's headquarters are located in Vilnius, Lithuania and there are two regional offices: one in Riga (Latvia) and one in Moscow (Russia). The Company has already been in business for 20 years and at the time of research had 111 employees in total (66 in Lithuania, 35 in Russia and 10 in Latvia). The Company was chosen due to several reasons. Firstly, they need to communicate and collaborate across several countries on everyday basis and this requires a use of various ICTs in order to stay in business. Secondly, they represent one of the medium-sized companies, and micro, small and medium-sized enterprises (SMEs) do constitute 99% of companies in the EU (Fact Sheets on the European Union, July 2015) which means the results would be relevant for a wide range of companies out there. And finally, at the moment of preparation for this research, ESN tools were still quite a novelty in Lithuania and it was a great opportunity to be able to research a case were one of the prominent ESN software was recently tried out (Yammer was available in the Company for 9 months before it was decided to discontinue its use due to a low rate of adoption).

Three Experts responsible for innovation related decisions and implementation were interviewed for this study. A purposive sample was used, since it was important for our study that the chosen Experts were the main initiators and implementers of the innovation, and that they had necessary knowledge and experience communicating about Yammer (Luborsky and Rubinstein, 2011). Their

characteristics (at the time of the interviews) are presented below (see Table 4).

Table 4. Expert characteristics

	Recent position	Responsibilities	Position during Yammer implementation	Previous working experience
Expert A	Head of Administration (for 2 years)	Managing the IT, Finance, Design and Personnel departments	Worked in the IT department (for 5 years)	Was working in the field of telecommunications
Expert B	Director of the Company since 2015	---	Worked as Head of Development and Innovation department (for 3,5 years)	Working in the Management of Public Communication at Vilnius Gediminas Technical university
Expert C	Project manager (for 1 year and 6 month)	Implementation of various innovative, communication related projects (was responsible for the ESN tool project)	Project manager (implementation of ESN tool was one of the first projects)	Project manager in Harmoningos asmeybės institutas (HAI.lt) and National Student Academy (NSA); working in organizing various other trainings, conferences and events

As mentioned before, there were 111 employees in total working in the Company: 66 in Lithuania, 35 in Russia and 10 in Latvia. The collected data regarding work status, country of origin and age of the participants can be seen in Table 5. It is important to note, that out of 66 employees working in the headquarters in Lithuania, there are 30 of them that work in the Storage and Shipping department where they do not use computers during work hours, and additional 2 employees that do not use computers due to their occupation as well (security guard outside the building and housekeeper). This leaves us with 34 employees who use computers and other ICTs daily in the headquarters in Lithuania.

Table 5. Profile of Online Survey Participants

Demographic Variables	Category	Count (n = 23)
Country of Origin	Lithuania Latvia Russia	17 2 4
Duration of employment in the Company	1-3 years 4-6 years 7-9 years 10 or more years	8 10 2 3
Age	25-29 30-34 35-39 40-44 45-49	7 3 3 8 2

3.3. Empirical Data Collection and Analysis

Data for this study was collected in two phases which can be named as qualitative and quantitative. The priority of the research was with the qualitative part, while the collection of quantitative data added value to the case study analysis by enhancing the integrity and credibility of findings.

3.3.1. Qualitative Data Collection Phase

Initially, internal company documents, together with the results from two previous employees' inquiries (surveys conducted internally by Expert C), were analysed and this provided a more detailed comprehension about the Company, gave context to understand how things are done. The first internal employees' inquiry was done before introducing Yammer and investigated the need of a new social media tool for the organization to use internally. The second one evaluated the actual use, reasons for not using, need of an enterprise social networking or a similar tool, etc. and was conducted after the introduction of Yammer, when it was already obvious that the tool is not working, just before closing it. The data from these inquires was extremely relevant and valuable for the study. Both inquiries were done in Lithuanian and Russian languages (as Russian is an official communication language between employees, as well as English) as they were intended for employees of the whole Company. First inquiry collected data from 25 respondents from Lithuania's office and 9 from the regional offices; the second inquiry had 21 and 9 respondents respectively. The second inquiry (related to Yammer) consisted in total of 9 questions with several optional answers, 1 question with optional answers and an option to write your own answer and 7 open-ended questions were the answers had to be written down by the participants themselves. Participants' comments (sometimes several sentences long) provided an extremely valuable insight into their attitudes towards the innovation itself and its implementation process, as well as general culture within the Company.

In addition, three Experts were interviewed using a semi-structured interview guide. This was one of the most important parts of the research and provided most of the data regarding the innovation adoption process at the organizational level. The semi-structured interviewing was chosen, because it is considered to provide a reliable and comparable qualitative data (David and Sutton, 2010). Also, the topic researcher wanted to investigate was known and thus it was possible to prepare questions in advance, while the open ended questions still allowed the interviewees to express their views in their own manner. The general questions (see Appendix 1, questions written in bold) were sent via e-mail to all 3 Experts few days in advance, since the interview was mostly in regards to their past experience and this gave the Experts time to think through and remember the situation better.

The overall structure of the interview was guided by DOI theory, meaning that after the introduction and questions about the background of the Experts, the questions followed the innovation-decision model: existing situation in the Company, the need for an innovation, planning

and preparation, how the employees were informed about the innovation, what were their attitudes, how and when it was decided to discontinue the use of Yammer, etc. (see Appendix 1 for supporting questions that the interviewer had, written in italic). Two questions were included at the end of the interview asking the Experts to share their insights, lessons learned and possible advice to others, in regards to adoption of enterprise social networking tools. The interviews were held in January, 2015, in the headquarters office of the Company, where meetings are usually held, therefore it was a known, comfortable and thus trusted environment for the interviewed Experts. The interviewer (author of this paper) had previous experience in conducting semi-structured interviews (held three focus group interviews and one individual interview during a bachelor of psychology studies) and felt comfortable while talking to the Experts. The interviews (in average 38 minutes long) were recorded using a digital audio recorder and later transcribed. Non-verbal communication was noted during the interviews and added to the transcripts.

The analysis of qualitative data was done with the help of Miles and Huberman's "Qualitative Data Analysis" source book (2nd edition). Also, innovation-decision process model according to DOI theory was taken into account, though it did not necessarily meant trying to put the data into the pre-determined number of groups. The phrasing and words used by the Experts and employees themselves were considered of the primary importance, however, in order to increase the generalizability of the research, a number of concepts from existing scientific literature were used whenever they seemed to help with naming the groups and sub-groups of results that appeared during the analysis. Each Expert interview was analysed separately, the results then compared with one another, and only then the overall Experts' view was compared to the analysis of the data gathered from previous internal inquiries. Following this process meant that we were able to determine which themes and aspects to pay most attention to and that the results had higher validity.

3.3.2. Quantitative Data Collection Phase

Based on the results from the Experts' interviews and previous internal inquiries, together with the insights from scientific literature analysis, a short online survey for all the employees of organization was developed. This was done in order to enhance overall research findings and their integrity, and to offset the weaknesses of using solely qualitative methods (based on Bryman, 2006). The format of online survey was chosen because it was already used before and familiar in the Company and the Experts recommended it as an appropriate means for gathering information from the employees. The survey was intended to assess which particular aspects during the innovation decision process were most important for the actual use of Yammer and which could be related to the discontinuance of its use. The survey started with a short introduction to the study and was followed by general questions about the participants themselves, continuing towards more specific and more

Yammer related inquiry (see Appendix 2 for a blank sample of the survey). First two questions addressed the frequency of use and skills in using various social networking sites (questions and answers developed by the author); third question addressed the construct of Personal Innovativeness in the domain of Information Technology and consisted of four statements (adopted from Agarwal and Prasad, 1998); fourth question asked to remember the introduction of Yammer (how it was introduced, how they heard about it) and once again consisted of four statements (developed by the author); fifth question asked whether the participant was actually ever registered into Yammer. Questions six, seven and eight were shown only to those, who answered "Yes" to question five. Question six inquired about the actual use of Yammer, how often it was used for searching information about the Company and its employees, for informal communication or work related issues (developed by the author); question seven addressed the use of Yammer during the whole time it was available in the Company, to evaluate if the respondent used the innovation throughout all the period or did he/she discontinue its use. Question eight consisted of ten statements which were adopted from the works of Davis et al. (1989), while taking into consideration the way these items could be transformed to address the particular innovation at hand, as it was done by Agarwal and Prasad (1998). The ten statements were included in order to address the perceived ease of use, complexity, usefulness and compatibility of Yammer. Question nine addressed the social structure and organization climate within the Company and consisted of four statements (developed by the author). The last question was open-ended and optional; it asked employees' to share their ideas and opinions as to what was important for the implementation of Yammer in their Company. There were also three questions regarding participants' demographics: their age, their work experience in the Company (in years) and which country they are from (for a blank sample of the survey see Appendix 2). Questions three, four, eight and nine used a five point Likert type scale (from "Strongly disagree" to "Strongly agree"). This type of scale was chosen due to its successful use in previous research (including the use together with the statements that were adopted), because it is proven to be easily interpretive and that five points provide enough of differentiation. Questions one, two, sex and seven also used a scale (mostly related to frequency) and the rest of the questions required a "yes" or "no" answer, an exact phrase or a figure. An online survey provider Manoapklausa.lt was used in order to actually conduct the study (it was previously used for conducting various surveys in the Company).

The questions that were developed by the author were formulated using the words and expressions of the Experts or the employees themselves as often as possible. Other questions were adopted from tested and proven items of prior studies' measures by changing name of technology when necessary. The online survey was sent to one of the Experts (Expert C) to check if meanings and wording of the questions and statements will be clear for all employees (2 comments were received and the phrasing of one author developed statement was changed according to them). This insured even higher content

validity of the survey. Survey was created in Lithuanian and then translated into Russian (together with a bilingual Lithuanian and Russian speaker).

Invitations to participate in the study (both in Lithuanian and in Russian) were sent via e-mail to all of the employees (with the assistance from Expert C) and 3 more reminders were sent via e-mail as well (after first and second week, and four days before closing the survey). The e-mails contained the hyperlink to the study's online survey along with some encouraging words, the information about where the results of the survey will be used and the contacts of the author. The survey was available for 24 days. It took in average less than 10 minutes to fill in, even less for those who did not use Yammer at all (this was mentioned in the invitation and reminders). After initial e-mail invitation and during the first two days 11 employees filled in the survey from Lithuanian office and 4 from other offices; during the next 3 weeks - another 5 from Lithuanian and 2 from other, and during the last 10 days – only 1 person filled in the survey. In total: 17 out of 34 employees working with computers and online in Lithuanian department and 6 from the other departments (in Russia and Latvia) completed the survey. It was suggested several times to use additional means (for example, paper copies) for distributing the survey to the employees however, Expert C advised against it.

It was decided to focus on the online survey results from the Lithuanian headquarters and put only their analysis in the results section, since the Experts interviewed before were all from this office, it is the largest of three offices and the number of participants was highest from Lithuania. The results from the website Manoapklausa.lt were downloaded into Excel file and then put as data into statistical software package SPSS 17. The data analysis was done taking into consideration that some of the questions were differential (for example, did the respondent actually registered to use Yammer or did not, how long they have used Yammer, etc.); or that a number of statements were put under a single question, which employed a Likert type scale and thus the scores had to be summed up in order to calculate a total score for a specific construct (for example, PIIT).

Ethical considerations were taken into account and necessary steps were followed throughout the research. Firstly, before conducting the interview, each Expert was informed about the possibilities of confidentiality and anonymity, and their questions regarding the use of results and getting feed-back about the study were answered. Afterwards, the Experts signed agreements to participate in this study and to be audio recorded, which also allowed to quote their responses as long as their real name, surname and exact company name details were not identified. Fallowing this, the Experts' names were changed in the transcripts if they mentioned each other during the interviews. Also, organization's name revealing details were omitted from the interview transcripts, the internal employee inquiry answers and other sources before using them in this study. Finally, at the introduction part of online survey, all the participants were ensured that the collected data would be handled anonymously and in a firmly confidential manner.

4. RESEARCH "ENTERPRISE SOCIAL NETWORKING TOOL ADOPTION" RESULTS

Firstly, the situation within the Company and reasons for deciding that they need a new tool for internal communication and collaboration are discussed, in order to provide context and have a more complete view of the case study. Secondly, the results from the qualitative data analysis, divided into 4 groups according to their place in the innovation decision process are presented. These groups were named as: Introduction by the top management, How ESN was perceived by the employees, Individual characteristics of adopters and Social structure within organization. The online survey results are presented next, followed by the general discussion of research findings.

4.1. Situation, Complication, Solution and Result

Based on the semi-structured Expert interviews, the analysis of organization's internal documents and previous inquiries' results, it was possible to have a general view of what was the situation within the organization before Yammer, what were the reasons for deciding they actually needed to have a new ESN technology, how Yammer was chosen and why it was decided to discontinue its use.

Before the introduction of Yammer, the means and tools used for information and communication within the Company consisted of phone, e-mail, Skype, Internal website, enterprise data warehouse and videoconference (see Table 6, page 44). Most of written communication is done using e-mail (there is one e-mail address for the office in Lithuania, another one for office in Russia, different one for all employees (for official news about new positions or similar), some e-mail addresses for certain groups, for example, sales). If someone needs to send a big file, it is placed in the enterprise data warehouse and a link is then sent to intended receiver(s). Skype is used wildly for real time communication: it costs less and is a convenient mean to exchange files, to quickly write to each other ("good for short, quick, not essential decision making" (Expert A)). However, the internal website of the Company was described as one-sided, functioning simply as a database of information about the Company. As a complete opposite, for spreading information, having effective internal communication, discussions and decision making, the Company also has special videoconferences, called „Culture and People", to deal with various internal questions, ranging from communication problems, employee needs, personal issues, etc. These meetings are held in average twice a month, the participation is voluntary, and every single employee (no matter their position) is invited to come. The employees from Lithuania's, Russia's and Latvia's offices (occasionally guests and partners as well) while staying in different conference rooms geographically, have a videoconference by using such technology as video-cameras, projectors, interactive boards, etc. The last communication tool added to the Company was an internal newspaper. A digital copy is sent via e-mail once a month, it can be viewed either on the computer screen or printed out. Employees offer themselves to share stories or suggest to prepare and send the material to the creator and editor of the paper (Expert C).

Table 6. Tools for communication and information used in the Company

Type	Mostly used for
E-mail (Microsoft Outlook)	Written communication (both formal and non-formal)
Skype	Real time communication between regional offices, with partners, clients; File exchange; Quick talks
Internal website	Database for birthdays and other Company events, financial results, etc.
Videoconference	Internal communication and discussions among all three departments
Enterprise data warehouse	Bigger file exchange (link sent via e-mail)
Internal newspaper (introduced after Yammer)	Sharing news, stories, interviews, information about important events

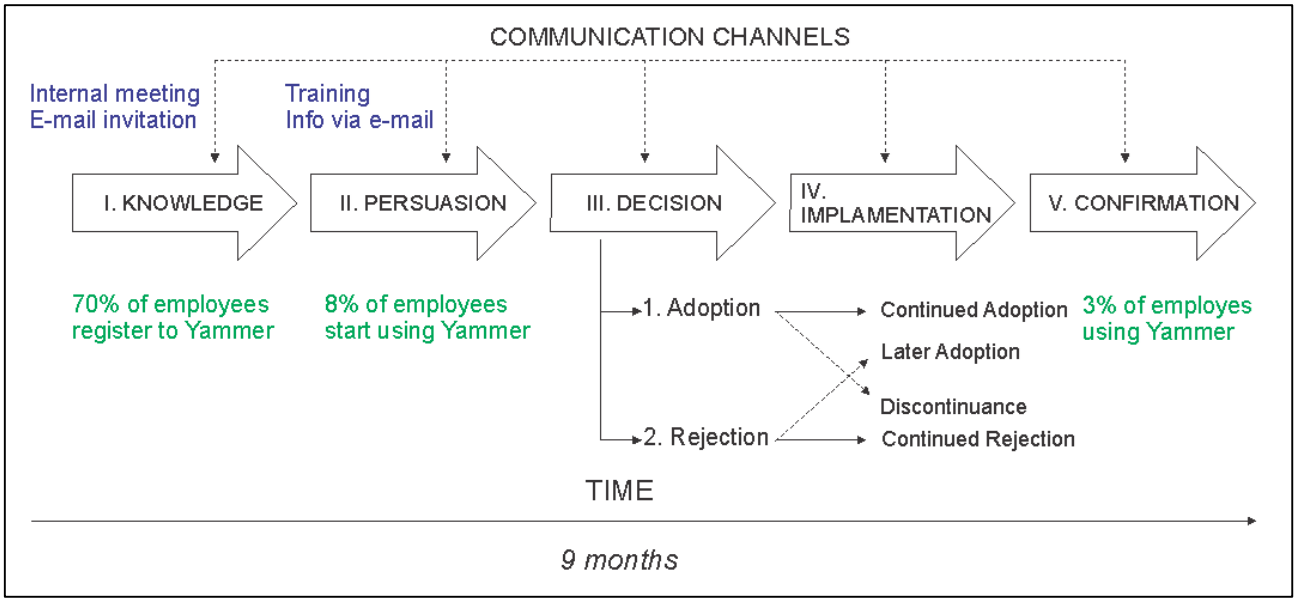
The use of the internet in the Company is not restricted; employees can use social media sites during work hours and they are free to use communication tools existing in the Company for both, formal and informal communication, since one of the Company's values is for people to interact, to share ideas. However, several problems still arose. Firstly, there was an overload of information (since people were sharing information not relevant to work via the same channels as official, work related information) and employees' dissatisfaction that followed this. "We received complaints, even annoyance, from some of the employees, saying that they are overloaded, that their e-mail boxes are too loaded" (Expert A). Thus, Expert A and Expert B wanted to create a place, an environment, where everyone could interact, could share this informal information, and later maybe to move on to using a different environment for work related information as well. According to internal employees' inquiry, done before Yammer, 6 out of 25 respondents from Lithuania have received negative comments from their colleagues or manager, due to publically sharing an article, a photo, a comment or a joke. Furthermore, there were difficulties in separating and then finding work related information; this sometimes led to organizational faults between employees. This was evident when trying to find previous e-mails with important discussions and decision in Outlook, when somebody would change the title or content of an ongoing online correspondence, and because you did not see clearly the overall process of discussion. Expert A put it as "*It seems the means exist, there is an e-mail, there is a phone […], but often it happens, that one person knows, another one does not know, and some misunderstandings happen due to this, we even have some losses*". Finally, as stated before, one of Company's values is for people to interact with each other, to share ideas, however, there was no suitable environment for this, since the internal website was considered as inconvenient, one way directed and not functional. It was difficult to upload the information there and only few people knew how to (mostly website administrators) and it was used only as a kind of database for Company's information (birthdays, financial results, procedures, etc.). Internal inquiry's results support this: to a question whether it is convenient to use the website for searching information, 17 out of 34

respondents answered that “It could be more convenient” and 7 said “No”. And to the question “Is it convenient for uploading information”, 5 indicated “No” and 21 claimed “Never tried”.

All this led Expert A and Expert B to initiate a discussion about having a platform for sharing ideas and for internal communication, so that everyone could easily share their thoughts without disturbing each other, more people would be involved and interacting, all the interesting people who work there, who have ideas, they could also unfold more easily. This is how the idea to have a platform, which would be more similar to a social networking site, was developed. We see, that a need for an innovation came from the employees themselves, and it was decided to look for specific solutions during one of the videoconference meetings “Culture and People”. Expert C was the person, who was assigned to make a research, to analyse and to determine what types of social networking services they could use and which would be the best option for the Company. After consulting an IT department and checking at least thirty different types of software, platforms, etc., Yammer was chosen, since it was a separate, closed social network (advantageous considering privacy issues), it was not yet present in the lives of employees (using, for example, Facebook both for work and not work communication would be confusing), it seemed flexible and functional for when you have several offices in different locations, it was rated as one of the leading enterprise social networking sites in the world at that time, and there was an option of using a free version, therefore it did not require high financial investments. Yammer was tried out by several employees and only then presented during yet another “Culture and People” meeting. There it was described as the best option found and collectively agreed on to try out. At this stage, there were already several employees who knew about Yammer and actually tried using it. After the collective decision to implement Yammer, an e-mail invitation with detailed user guide (in Lithuanian and in English) was sent out to all of the employees. Part of them registered themselves, some needed help. There were several groups created already (for different offices, languages). In total around 70 per cent of all Company’s employees registered. Thus there were 30 per cent of employees who have rejected this innovation even before actually having more knowledge about what it is and how it works. A majority of people, who have registered and this way acquired more knowledge about the innovation, did not actually use Yammer and thus can be considered as those, who rejected the innovation after the persuasion stage. There were approximately 8 per cent of all Company’s employees (around 10 people) who decided to use and started actually using Yammer, however, most of them have discontinued their use. At the end, there were only few people still using Yammer, and one of them was Expert C, who still tried to attract colleagues to the site, for example, by adding all the photos or other material about Company’s events only in Yammer and then sending just the link via e-mail. Once it was obvious, that the number of users was not increasing (Yammer was already available for 9 months in the Company), the Experts themselves gathered and decided to discontinue the availability of this ESN tool in the Company (the

second internal inquiry, this time about the use of Yammer, was conducted before actually closing it). The overall use of Yammer during its adoption process in the Company can be seen in Figure 6.

Figure 6. Use of Yammer during the Five Stages in the Innovation-Decision Process



Source: modified by author (2015), adopted from Rogers, Diffusion of innovations (2003)

4.2. Results Analysis of Yammer Adoption Decision Process

The following results are divided into 4 big groups and mostly follow a framework based on Rogers' innovation-decision model. Each group is based on the results from the qualitative data analysis and the results from the online employees' survey are presented in the end. During Experts' interviews, several recommendations in regards to ESN type innovation adoption were suggested, these are mentioned in the Conclusions part.

4.2.1. Introduction by the Top Management

Few aspect on the way how Yammer was introduced to the employees were discussed as important for the overall adoption process. In particular, who communicated about Yammer and what was said about this tool to the employees, whether there was a choice to participate in the training about Yammer and to make individual decision to use it or not.

As mentioned before, ESN tool Yammer was introduced by Expert C: an e-mail was sent to all employees, asking everyone to join in and use this new communication and collaboration tool. The fact that invitation and introduction e-mail was sent by Expert C and not, for example, Expert B, who was at that time still Head of Development and Innovation department, might have been a mistake, because „*part of the employees could have looked at it as something not enough serious*"(Expert C). According to Expert C, the reason for this could be the Expert being a rather new person in the organization, explaining that, at least in their Company, the position one holds and the working

experience (in years) he or she has, can have an effect on what people think about you and the things you say. Expert B mentions the initial communication about Yammer by saying that human to human interaction is still stronger at creating a need to meet each other or have a discussion, while when an invitation is "*inside an e-mail or somewhere else, one can easily go on ignoring it*". Expert A goes on to suggest, that maybe the management could have done something differently: "*to go out there, encourage to use, show how they could communicate there, how different departments could communicate and what benefits they would have*". This statement leads to a question, what was and what was not communicated about Yammer to the employees? Even though all the Experts agree that the main objective was to spread the news about Yammer as much as possible in various ways, there seems to be some inconsistencies as to what was exactly the message that they were sending. As discussed before, it was planned to first introduce and use Yammer to create an environment for informal communication, with the possibility to gradually start using it for work related tasks as well. Due to being viewed as first of all a tool for "*informal exchanges, not related to work*" (Expert A), the presentation of Yammer was maybe not that "*intense, well planned*" and its implementation not considered "*very important strategically*" (Expert B). It seems that it instantly resulted in confusion towards Yammer from the employees themselves. According to Expert A, a number of them would say that they do not have time for this tool, they have something else to do, they have too much work and not enough time, etc. which can seem rather reasonable if the tool was introduced as intended more for free time and leisure activities. Subsequently, even though the management would say that Yammer could also be used to do work related tasks, the tool was already associated with something not related to work. Expert C admitted that it may not had been said clearly enough at the very beginning how Yammer could help to have better work results, as these examples came later (after a couple of months). And by that time, those, who heard about or even tried Yammer and did not see its potential, were not convinced by someone saying: "*Oh, you know, we are using it for work it and it is great*" (Expert C). This was supported by the results from the Internal employees' inquiry done before closing Yammer, with statements such as "*A job means working, not telling jokes*" or "*I do not have enough time for this while at work*" (employees' answers to why they did not use Yammer for sharing informal information). Also, more than several employees wrote that they did not see or feel a need for such a tool, when speaking about its use in general, or for sharing work related information in particular. When asked about the time and resources put into getting used to Yammer and changing their habits, at least half of the employees wrote in the inquiry responses, that they have spent either no time at all, less than an hour or something in lines of "*more than I should have*".

The training how to use Yammer was seen as an important part of spreading the news about this innovation in the Company and encouraging people to use it. Training sessions were done several times (by Expert C) as an interactive, practical group trainings or individually, when asked for. Since

everyone was free to choose whether to use or not to use Yammer, the training was also not compulsory. The fact that Yammer adoption was a contingent innovation-decision was mentioned in one way or another by all three Experts as important for the number of its users. We have to remember, that after it was decided collectively to have an ESN tool and once Yammer was chosen and approved during one of "Culture and People" meetings, the invitation to join Yammer was sent out via e-mail and it was left for every single employee to decide if they wanted to actually use it. It is the policy of the Company to give employees their freedom to make decisions regarding various social, cultural things, because one is never sure how it will work, and "*it is better for it not to work out, than for people to do something against their will*" (Expert A). Nonetheless, Expert A mentioned several times, that they might have had a much better chance at successful implementation "*if one of the old tools [of communication] were discontinued. That is, that there would not have been other options for that information exchange. Of course, you cannot turn off Skype, but one could limit the use of e-mail. Size of a file possible to send – half of a megabyte. They are usually larger, so… exchange in Yammer (smiles). It is simple, simple… but somehow we did not want to go through with it."* Expert B explains, that if this project were treated as somewhat more strategically important, they might have put more resources into it, made its use *„compulsory somehow"*. However, in the case of Yammer, they expected it to *„start functioning on its own after some time"(*Expert B). The person responsible for Yammer's implementation, Expert C, also said, when speaking about trainings, that there should have been group training and individual training sessions (specially for older employees) and maybe *„make those individual sessions mandatory for some people"*. Even one employee wrote himself that, what would stimulate him to use this platform (Yammer) more often and exchange information was *„If there was no choice"*(Internal employees' inquiry).

Regarding the start of Yammer in the Company, all of the Experts pointed out the number of initial users, enthusiasts as they call them, and the overall activity of people. Expert A said that even though at the beginning there were several groups, which used Yammer quite actively, both from work and from home, he himself started to use Yammer less and less frequently once the overall initial eagerness calmed down: *„there was this turning point, when it was used less and less often, less and less enthusiasts"*. According to Expert A, people themselves started to say that *„we are tired of being the only ones […] it would be nice to have some help from others"*. Expert A said this might have been a place for the management to come forward and *„do not let go of those enthusiasts"*, as well as encourage people from other departments, who have participated less, to join in. Expert B and Expert C describe the situation similarly, and Expert B also adds that even though there were groups that started to use Yammer and share content, the number of those people was not big and in general *„there was not so much enthusiasm from the people themselves. For them to eagerly go and use it… difficult to say why"*. In the opinion of Expert C, it was also a small number of overall initial users

that possibly led to having less and less people using Yammer. As she puts it: *„not even all of the employees registered… And maybe the overall number of people [in the Company] that is needed to pull off a thing like that was also too small"*(Expert C).

To summarize, it seems that the introduction of Yammer by the top management was important for the overall innovation adoption process, firstly, because the decision to use or not to use Yammer and the participation in the training sessions about the new ESN tool were optional for each employee. Furthermore, the fact that Yammer was introduced by a new person in the Company, the differences in describing its purpose to the employees and the amount of support expressed towards its use by the top management, seem to have led to a situation, where a number of employees upon hearing about Yammer, instantly refused it because they did not take it seriously or useful for their work or even worse, they thought that this type of tool has no place in the work environment at all and were not convinced otherwise later. How Yammer was perceived by the employees is discussed in more details in the following section, however, if we refer back to Rogers' diffusion of innovations theory, we can already see, that in this case, the knowledge and the persuasion stages of the innovation decision process already resulted in losing a number of potential adopters (see Figure 6, page 46).

4.2.2. The Way Yammer Was Perceived by the Employees

The second group of results describes the way Yammer was perceived by the employees. Firstly, there were differences in how useful Yammer was seen for work related tasks and/or for informal communication. A number of employees who used Yammer for work projects found it useful, because it was more convenient for file exchange, for commenting and finding information, it was well structured, saved time, etc. (Expert B and Expert C). At the same time, part of the employees did not see Yammer as related to work or as having possible use for work (when the Experts were suggesting to try using Yammer, the employees would respond that they have work to do and not to bother them). This was also evident from what the employees wrote themselves: "*It is easier to go directly to the person you need and talk to him – in my opinion it is much more expedite and effective*", or "*it is more convenient for me to receive work related information via e-mail*". And the same attitude seems to go towards the exchange of informal information: asked what was preventing them from using Yammer for informal communication, one employee wrote: "*A job means working, not telling jokes, and if you want to tell a joke, I would rather prefer real life communication*", while another stated that "*I am saving time, therefore I rather send the information by e-mail, than open one more program*" (Internal employees' inquiry). The fact that the employees would rather use e-mail or Skype than Yammer, takes us to the question as to how much Yammer was in accord with previously existing routines, habits and various communication tools used in the Company. Regarding this, all of the Experts mentioned one thing in common, the fact that Yammer was one more additional

communication platform, in addition to e-mail, phone, Skype, even Facebook, LinkedIn, Google+, etc. which were already available for all the employees. Expert A explains that, for example, part of information would still come using e-mail and since someone might lack the motivation to copy it or send a response saying to use Yammer instead, this led to having "*a part of information in Yammer - the beginning, then a long discussion in e-mails (laughs), and then someone again writes in Yammer […] and someone who just joined, does not really understand what was happening*". More than several employees explained not using Yammer for either work or sharing informal information due to: „*a lack of quick reaction to the question at hand [...], information came more efficiently via email*"; "*For me it was more convenient to receive information via data warehouse exchanges*"; "*e-mail is enough for me*"; "*For those I need to, I send the informal information via e-mail or Skype*", and even „*We already have enough means for communication (e-mail, Skype), additional one is not needed*", etc. (Internal employees' inquiry). We can also see, it was not only that the employees were reluctant to try to change their habits or were simply not used to a new tool, they actually felt Yammer had no place in work environment. Expert B himself raised a question, that „*maybe they though that it is nonsense*", and few employees expressed their opinion about sharing work related information on Yammer by saying that "*I do not think it is an appropriate place*"; "*Yammer is definitely not a place where you can share work related info*" (Internal employees' inquiry). These perceptions can be traced back to seeing Yammer as a social networking tool for sharing informal information, as it was initially presented.

Another perception about Yammer that kept reappearing and was at the same time divided in opinions was how easy it was to use this tool. On the one hand, when speaking about the reasons for employees not to use Yammer, Experts say the employees complained that Yammer was not convenient to use, that it took time to adjust to it, they did not understand its use from the first time, found it complex or similar. At least one third of the employees also had negative comments related to this in the Internal employees' inquiry, for example, saying that even though the way to use Yammer was understandable, it was „*actually really inconvenient, too complex. For me it was the main reason, why I went there rarely*"; „*Somehow it is difficult to understand the logic where to put posts. You do not want to waste your time then*"; „*Complex structure [...], I did not always understand which group to write, where to find what*"; „*Not clear, not convenient interface*" and similar. On the other hand, all of the Experts themselves found Yammer easy to use, they appreciated its functionality, and in general did not find it complex. And a third of the employees in the Internal employees' inquiry had positive remarks, said that they found Yammer easy to understand and use. There were several aspect mentioned by the Experts and the employees themselves that might explain, as to why exactly some users found Yammer difficult to use and some did not. This firstly includes the features of Yammer itself: at that time the interface did not look so nice and was not as

recognisable (compared to Facebook), the reminder e-mails did not always function properly, file upload would not always work due to updates. According to Expert C, a number of employees who tried using Yammer and even asked for individual help to learn about it, did not give it a second go, if it was not easy for them to understand its use from the very first time. This leads to the second point: the Experts agreed, that Yammer was more difficult to understand „*for a person, who is not used to such social networks*"(Expert C) and in their Company this could be because „*our personnel is not so young [...] there are not so many people who use these networks, who grew up with them, who understand, and for whom everything is intuitive. 'It is not worth it, why I would learn all this'...*" (Expert B). This question of previous experience with using other social networks emerged from internal employee's inquiry as well, for example, when answering that it was easy to understand how to use Yammer, because „*main idea is very similar to other social networks*".

If we look at the results presented up to this point and once again refer to Rogers' DOI theory, we can describe the adoption decision process in the Company as following: after the introduction of Yammer, majority of employees were not interested to find out more about it, let alone try using it. Those who were interested to try the tool, got more information, actually tried it, and then decided either to adopt this innovation and became what the Experts named "enthusiasts" or decided not to use the tool (reject the innovation) and claimed their decision was due to the characteristics of Yammer (they found the innovation difficult to use, not compatible with their existing practice, they did not see any visible results of the innovation, etc.). One explanation behind the difference in the perceptions of Yammer was mentioned already, that of the previous experience with social networking tools. There were other characteristic of the users themselves important for this innovation decision that emerged during data analysis and these will be discussed in more detail in the next section. However, if we go back to the adoption decision process, at this stage we have a certain number of employees who are already using Yammer, but as we already know, this would not last: there were less and less active users until eventually it was decided to discontinue Yammer's use in the organization. At least part of the explanation behind the discontinuance seems to lie within a kind of a downwards spiral that developed and is particularly relevant for social media tools: not all of the employees were using Yammer and this required additional efforts from those who were using it, which in turn made it less likely to enhance individual job performance. This led to people using it less and less, and thus even more difficult to use effectively for the remaining users. This idea is supported by the comments from the employees themselves, since when asked in the Internal employees' inquiry about what was preventing them from using Yammer (for sharing formal or not work related information) and whether it was difficult to use Yammer, the answers included such statements as: "*Colleagues not participating*"; "*You do not know, if many people are reading it*"; "*Basically little or no reaction to the information one has posted, a small number of those, who do*

react"; *"Everything is very simple and easy, you do not need a lot of time for this [to get used to Yammer], it would just be more interesting if there was more involvement from others"; "If there were more people using it, I believe then yes, it [online platform for communication] would be needed"*. And especially the answers to question "What would encourage you to use this type of tool and share information" are in agreement with the idea of how important the number of users was for the attitude towards Yammer, since almost one third of the employees stated: *"Larger amount of information exchange between different people with different interests and ideas"*; *"Active participation of the majority of employees"; "More participation from my colleagues in social network. At the moment there is great inactivity"* and similar. All in all, we see that employees' perceptions of Yammer were linked to their attitudes towards it and that these perceptions and changing attitude (from favourable to unfavourable) interrelated with the falling number of users, which led to eventual decision to discontinue the use of Yammer.

4.2.3. Individual Characteristics of Adopters

The following group of results sums up few individual characteristics that were discussed by the Experts when speaking about ESN tool adoption and whose importance was supported after the analysis of data from Internal employees' inquiry. First of all, when talking about how easy it was to use Yammer for different employees, all of the Experts mentioned previous experience in using social networking tools and Expert B and Expert C related this to the age of users, saying that to grasp how to use Yammer was more difficult for more adult employees (above 40) and that the majority of employees in the Company in fact are not that young and thus not used to using social networking tools. The remarks from Internal employees' inquiry illustrate this with statements about the use of Yammer varying from *"I simply did not get used to this site"* to *"everything is very easy, it is similar to other social networking sites"*. The ability to use this new ESN tool might be related to the overall readiness for new technologies. During the interview, when speaking about average age of the employees, Expert C said that some of *"our people are not receptive to technologies. This means that the whole Company is not, is not mature so much"*. A number of employees stated in the internal inquiry that they actually did not spend much time trying to learn more about the newly available ESN tool, and one participant commented that, what was preventing him from using Yammer for sharing work related information, was that *"from the very beginning I am completely indifferent towards ALL social networks. For this reason I am not interested in one more "toy" Yammer"*, while another employee, when asked about possible alternatives to Yammer said that *"it is difficult to give suggestions when you do not really understand this domain"*. This lack of interest and knowledge about new ICTs in general might be related to what Expert C called "lack of trust". Several employees had something similar to fear expressed to the Expert, by saying that "*How could we upload some*

documents [to Yammer], anyone can access this" or "*I will upload and everyone will know everything*". Few remarks from Internal employees' inquiry seem to support this, such as "*I do not think it is an appropriate place. For work related info – e-mail, servers, dropbox or google drive, skype*"; "*Yammer is definitely not a place where you can share work related info…*" Overall, it seems that, at least according to the Experts, the characteristics of the employees, such as their age and their views towards social media technologies in general and knowledge about it, also played a part in the whole Yammer adoption decision process.

4.2.4. Social Structure within Organization

The last group of results deals with the social structure within organization, which was clear to be of great importance in regards to Yammer's adoption, since it was after all a type of social innovation that the Company tried to implement using specific ICT enabled tool. By social structure we consider the relationships between individual employees and between departments, the usual communication within organization, existing communication problems and organizational climate. In part these results were already presented in the previous results' sections (particularly the first one), however, here we focus on discussing the importance of these results while focusing on the social aspect of the overall process of innovation adoption decision in the Company.

From the Experts' interviews we can see that there were occasional cases of losing once temper, relationship issues, conflicts, even business losses, due to internal communication problems. Working as Head of Administration, Expert A is directly interested in effective communication between employees and departments, this is why the Expert noticed, that there were cases of misunderstandings, which then led to showing temper towards each other (and this was not related to Yammer). Expert A was also the first one to mention that some of the departments did not join in the participation in Yammer as much as others, that maybe the management could have encouraged them more. Expert C spoke even more about different levels of involvement in Yammer by employees from different departments. Expert C referred to this situation as "*a slight personnel disunity*" and claimed it felt like those who were communicating about and promoting Yammer, were not part of every social group in the Company, and „*if a person from one group is suggesting something for a person from another group – it is not accepted. No matter how good an idea it would be. And if a person suggests it to someone from the same group – it will be accepted without questions*". The notion of being comfortable in sharing ideas and having more informal communication between one another (as hoped for before Yammer) was mentioned by Expert B as well, by saying that even though the implementation of Yammer was not successful, during this process they have found out more about the Company and its employees: "*there are less of those [people] who are full of ideas, and sharing them, and being able to take advantage of this [Yammer]*" /…/ "*majority is not so much at*

ideas level, and it is, of course, difficult to expect, that at the level of a specialist, there will be a lot of ideas' persons" /…/ "*probably the majority are people, who have a set of work responsibilities, they want to stay within them and they do not really want to step out of their comfort zones*". The statements from internal employees' inquiry also indicate the importance of interpersonal communication and the social structure in the Company for their decision to use Yammer. For example, when asked what was preventing them from using Yammer for informal communication, employees stated that: "*In general, I do not like to "pollute" the area with information that is possibly not interesting to others*"; or "*Not knowing your colleagues well – it is worrying, that the message will not be understood, will annoy someone, or even, heaven forbids, will insult*"; "*Not knowing, whether the information will be relevant to anyone*", and similar. And as one participant summarized the view of several respondents in the answer about what would encourage employees to frequent the platform and share information: "*More sincere communication in real life would form a need to expand this communication in the virtual environment*".

All in all, if we remember Rogers' DOI theory, the norms of the social system are put together with prior conditions in the model of innovation decision process. In the case of Yammer, it seems that the very reasons for choosing ESN tool were the need to change some of existing norms and maybe even organizational culture. However, these very aspects of the Company were the ones that had an effect on how the innovation was received by the employees, how difficult it was to make it compatible with existing values and attitudes: all this led to a continuously decreasing number of innovation adopters and thus became a proof for existing communication problems. This circle was unfortunately too strong to break for this particular innovation, one can assume mostly because it was a social media tool, and the functioning of this type of tools is inevitably determined by the functioning of the social system which is using them.

4.3. Results from Online Survey for Employees

The overall response rate of the online survey from Lithuanian office was 26 per cent, however, one must take into consideration that out of 66 employees, only 34 use computers for their daily work. Although the small number of respondents requires caution in interpretation, the data gathered enhances previous findings.

The respondents' age and duration of employment in the Company are presented in Table 7 (page 55). It can be noticed, that almost half of them are aged 40 or more (47 per cent) and more than half has been employed in the company for 5 or more years (53 per cent). Also, there is a wide range between the youngest and oldest employees (25 and 46 years old respectively) as well as their time spent working in the Company (varying from 1 to 20 years).

Table 7. Demographic profile of participants

	Years	*n*	%
Age	25-29	5	29
	30-39	4	24
	40-46	8	47
Duration of Employment	1-4	8	47
	5-9	6	35
	10-20	5	18
Note: $n = 17$			

The age of the participants was found to be significant in regards to the frequency of use and skills in using various social networking sites by the respondents. The respondents were asked to identify how often they are using social networking sites and how would they self-evaluate their skills in using various social networking tools. A degree of use was captured by using a four point scale, ranging from "Do not use at all (or less than once a month)" to "Very frequently (few times per day)" and the responses for their level of skills ranged from "Not skilled at all" to "Very skilled and accustomed to using various social networking sites". The results indicated a significant negative correlation between the age of respondents and their use of social networking sites (-0.79, $p = 0.01$) and between the age and the skills in using social networking sites (-0.66, $p = 0.01$). In fact, all the respondents who indicated that they have never used SNS tools and the only respondent who chose the response of using SNS rarely, were 40 or more years old.

The degree of using Yammer was determined by asking the respondents, who indicated that they have actually registered to Yammer, how long they used the tool during the whole time it was available in the Company. Their responses (see Table 8) indicate that the majority of them (80 per cent) have stopped using Yammer either after few tries or after a short period of time. And all but one of the respondents, who indicated that they *"Tried using one or few times, did not like it and was not using anymore"*, together with the two participants of the survey, who did not even register to Yammer, were at least 39 years old. The statistical analysis also showed that there was a moderate negative correlation between the age of participants and their use of Yammer (-0.58, $p = 0.05$).

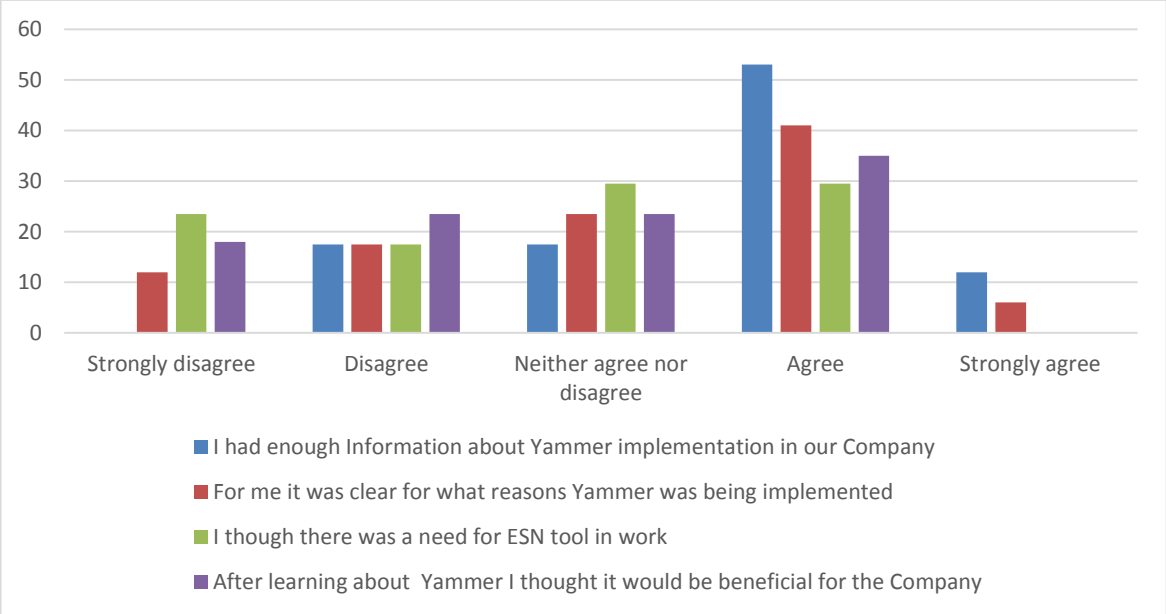
Table 8. Response rates regarding the use of Yammer

Responses to "How would you evaluate your activity in using Yammer?"	**Per cent**
Tried using one or few times, did not like it and was not using anymore.	47
Was using at first, but stopped rather soon.	33
Was using actively at first, but over time stopped using at all.	7
Was using during the whole period, but seldom (once or twice per month).	7
Was using actively during the whole period (at least once or twice per week).	6

The data suggest, that the use of Yammer can be positively related to one of the perceived attributes construct, that is to the Perceived Usefulness (0.69, p = 0.01). The reliability of PU and other perceived attributes constructs, as well as Personal Innovativeness in the domain IT, were evaluated using Cronbach's alpha and were as follows: PU (0.83), PEOU (0.76), and compatibility (0.53), PIIT (0.87). Thus all of the constructs, apart from compatibility, demonstrated acceptable reliabilities (Vaitkevičius and Saudargienė, 2006). This might be explained as the items to address compatibility were the most modified from the ones used in previous research. In regards to PIIT, it was found to be related to the frequency of using social networking tools in general (0.50, p = 0.05) and to the self-perceived skills of using various social networking tools (0.57, p = 0.05).

The questions regarding the introduction of Yammer provided valuable results as well. If we look at Figure 7 and follow the "Strongly Agree" and "Agree" columns, we can see that in average half of the respondents indicated that they had enough information about Yammer implementation (65 per cent) and that it was clear for them for what reasons it was being implemented (47 per cent). Though this number is not very high, what is more interesting, is the fact that only around one third of participants said they thought there was a need for an ESN tool in work (30 per cent) and that it would be beneficial to the Company (35 per cent).

Figure 7. Responses to questions regarding introduction of Yammer

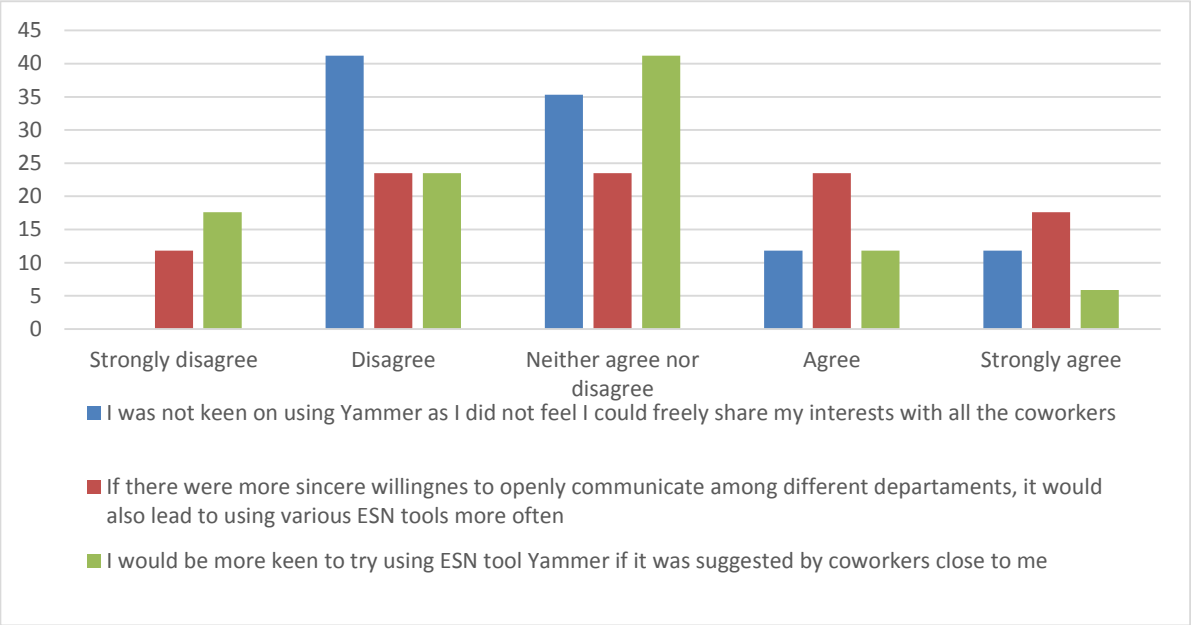


Source: developed by author, based on online survey results, 2015

Since the adoption process of Yammer and its use was associated with the social structure of the Company, several question addressed the organizational climate. One can see how these questions have led to less answers with a clear opinion (Figure 8), nonetheless, we can notice that none of the respondents strongly disagreed with a statement indicating they did not feel like freely sharing their

interests and more than 40 per cent feel that there could be more sincere willingness to openly communicate across different departments, which could also lead to using ESN tools more often.

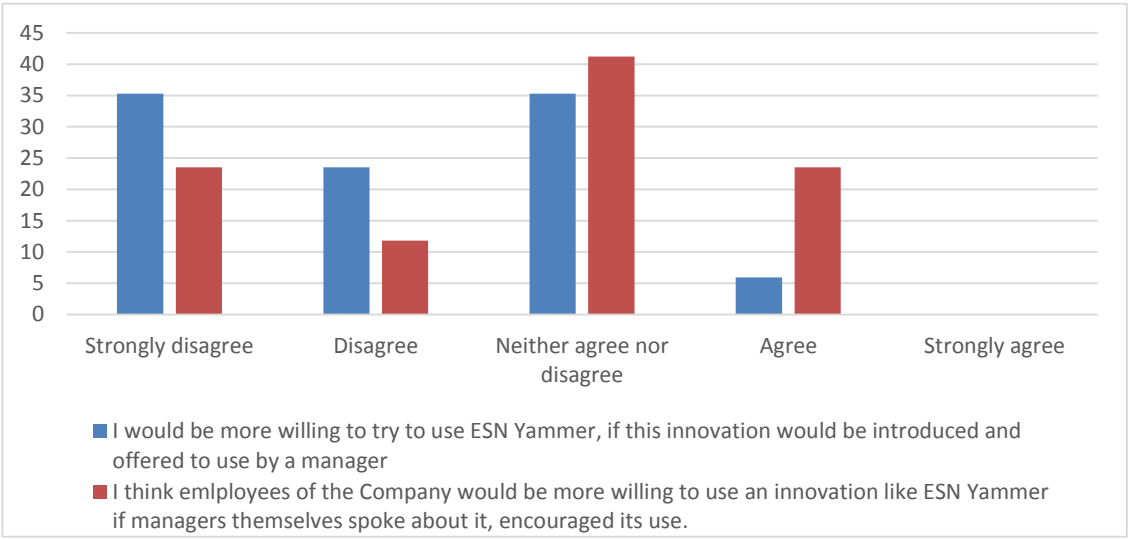
Figure 8. Responses to questions regarding social climate in the Company



Source: developed by author, based on online survey results, 2015

This can then be supported by the fact that at least 40 per cent of participants stated they would not be more interested in using Yammer if it was suggest by their co-workers. However, it can also relate to them simply not thinking they could be influenced by others. As one can see in Figure 9, when asked about their own willingness to try Yammer and whether its use would be influenced by the support from management, the employees answered rather differently, then when asked about the importance of top managements support for other employees' willingness to use Yammer.

Figure 9. Responses to questions regarding top managements support for ESN tool



Source: developed by author, based on online survey results, 2015

At least 60 per cent of respondents stated they would not be more willing to use ESN tool Yammer, if it was introduced and offered by top management, however, only 35 per cent of participants believed that other employees' decision to use Yammer would not be influence by managements support of the innovation.

All in all, our findings indicate that the employees' age and PIIT related to their experience and frequency in using social networking tools in general and that PU of Yammer positively correlated with its longer use over time. Also, though employees indicated they had enough information about Yammer, in average they did not feel it is needed or could be useful for work. Their opinions about the organizational culture and the introduction by tops management were cautious, however, a number of respondents did indicate its importance for their willingness to use Yammer.

4.4. General Discussion of Results

The overall results from both, qualitative and quantitative parts are discussed together with the insights from previous theoretical research, regarding the factors important for social networking adoption process in organizations (table with summarised findings added in Appendix 3). First of all, from our study results, it looks like the introduction of the top management was important for the initial rate of adoption in several ways. The management planned to introduce Yammer mainly through its use for informal, free time and fun related activities and only later on to have it used as a tool for work related tasks and questions. Due to this, there was a lack in consistency is presenting the purpose of Yammer. Also, it was believed that the most important step was to get as many employees as possible to know about Yammer and learn how it functions, however, as a whole, the project was not considered as of great strategic importance and not that many resources where put into it. The management was not that involved in the invitation and encouragement of users, the initial introduction was left for a newcomer of the company and done mostly via e-mail. This all led to a situation, where a number of employees upon hearing about Yammer instantly refused it because they did not take it seriously or useful for their work or even worse, they thought that this type of tool has no place in the work environment at all. Once we refer back to Rogers' diffusion of innovations theory, we can see, that in this case, the knowledge and the persuasion stages of innovation decision process already resulted in losing a number of potential adopters. And this number was even higher, since the participation in training (learning more about the ESN tool) and the decision of whether or not to use Yammer was optional for the employees. As Rogers writes about the innovation decision choice: authority based decision „yields the high rate of adoption, but produces high resistance" (Rogers, 2003) and though this was understood by the management, in this particular case, to force the use of the ESN tool stood against the Company's internal policy.

We could also see a lack of innovation champions (charismatic individuals who can support an innovation and help in overcoming indifference or resistance to a new idea in organization (Rogers, 2003)) as admitted by all of the Experts: only one and rather new employee, especially not in a high position within an organization, was not enough to boost the idea of Yammer. This also had an effect on the number of initial users, which turned out to be of great importance: it was a type of interactive innovation that had to be implemented and in these cases, each individual adopter becomes increasingly beneficial both for future adopters and for each previous adopter (Rogers, 2003).

The so called perceived attributes of innovation also had an impact on the persuasion stage during the process of adoption decision (Rogers, 2003). One important characteristic of this particular innovation was relative advantage (according to DOI) or more clearly in this case - perceived usefulness (according to TAM). From the results gathered it can be seen, that Yammer was often perceived as not so useful for work related tasks and thus it had an effect on the attitude formed towards it. Another characteristic important for the adoption of Yammer was its compatibility with previous practice and needs felt by the employees, and the results indicate Yammer was not perceived highly in this regard as well. This was mostly due to the existence of other communication tools, employee efforts needed each time going from using one mean to another, and as mentioned before, the way it was introduced by the top management. Furthermore, one of the most important attributes of an innovation that has a direct relation to the willingness to use a technology and thus to the adoption decision (according to a number of research done already, as presented before) is the complexity or Ease of Use of the innovation. Clearly, this was what the Experts and the employees were referring to when stating their opinions about the use of Yammer (both negative and positive). It seems, that the variety in the degree of perceived usefulness of Yammer, could be explained by previous experience in using social networking tools in general, which was in turn related to the average age of the employees. The importance of observability was also evident, as it was mentioned by the Experts directly and apparent from the employees answers as well. It would seem that we have the degree of relative advantage (perceived usefulness); observability, compatibility and complexity (Ease of Use) all related to employees forming an certain attitude towards an ESN tool. And as we already know, the perceived characteristics of an innovation have a strong relation to the adoption decision and use of technology (Rogers, 2003; Davis, 1989; Davis et al., 2003).

Even though initially individual characteristics of adopters did not appear of high importance compared to the factors presented in the first two groups, once considered in the light of existing ICT adoption literature (Alarcón-del-Amo and Lorenzo-Romero, 2014; Hu et al., 2011; Rogers, 2003; Davis et al., 2003; Agarwal and Prasad, 1988), their significance for Yammer adoption decision process seemed necessary to be discussed. This mostly refers to what in ICT research literature is called the concept of Personal Innovativeness in the domain of IT (PIIT), a relatively stable personal

trait, defined as "the willingness of an individual to try out any new information technology" (Agarwal and Prasad, 1988). PIIT was shown to have moderating effects on the individual perceptions about a new information technology, one example being the perception of compatibility (Agarwal and Prasad, 1988). According to our study, the willingness and ability to use a new ESN tool might be related to the overall willingness to try a new technology. Another individual characteristics found important were employees' age (not found in literature before) and what was referred to as the lack of trust in technology. All of these characteristics seem to have had an effect on the employees' decision to use Yammer or not from the moment they gathered some knowledge about what it is and how it functions.

The last group of results is related to the social structure within the company, which was found to be important for the adoption process of IT and social media tools IT by other authors as well (Verheyden and Goeman, 2013; Lee et al., 2003; Adam Mahmood et al., 2000; Davis et al., 1989). The existing beliefs shared among certain employees about how things should be done (for example, that work is no place for SNS), as well as the existing relationships between employees (difference in communication styles), together with the general atmosphere felt in the organization (lack of enthusiasm, expression of ideas) were important in respect to how Yammer was initially regarded and how its use was approached. All in all, it seems that part of the issues that the adoption of ESN tool was supposed to address, were in themselves important factors for the success of implementation.

CONCLUSIONS

The purpose of this thesis was to fill in the gap in knowledge about the important factors for a successful implementation of enterprise social networking tools and to research the adoption process of enterprise social networking tool Yammer in a selected organization. The conclusions of our case study are as following:

1. Understanding the governing principles and features of enterprise social networking and the way they are evolving due to continuous development of information and communication technologies is important to fully benefit from the use of various enterprise social networking tools.
2. Diffusion of innovations theory and technology acceptance models allow to address factors important for adoption process of social networking tools in organizational settings, since they have already been successfully combined for information and communication technology innovation research and can be used to address the adoption decision at individual, and organizational levels.
3. Innovation-decision process model can be successfully applied for conducting a case study of enterprise social networking tool adoption. The model can be used with qualitative and quantitative research methods to collect relevant data for determining key factors for enterprise social networking tool implementation.
4. The analysis of qualitative and quantitative case study results reveals important points for the adoption process of enterprise social networking tool Yammer:

4.1. The introduction by the top management is important in regards to the type of adoption decision available for employees, who and how is introducing Yammer and what is communicated (or not) about its purpose, as well as whether the training is compulsory – these affect the number of initial users;

4.2. The way Yammer is perceived by the employees, meaning, how useful this enterprise social networking tool seems for work and/or informal communication, how compatible employees find it with existing communication and information technologies in the organization, and how easy or complicated the use of Yammer is considered, can determine favourable or unfavourable attitude towards the adoption decision of this tool;

4.3. Individual characteristics of adopters such as their age, ability and willingness to try new technologies, as well as trust in information and communication technologies can determine employees' decision to try using and learning about Yammer early on in the knowledge stage;

4.4. It is important to take into account the nature of the social structure within organization: relationships between employees and departments, communication patterns and problems within organization and organizational climate, since they can influence the rate of Yammer adoption and its continued use, and thus the success of enterprise social networking tool implementation.

Based on the findings of empirical research few recommendations can be formulated:

1. In order to avoid a repeat failure with other information and communication technology based tools, the Company should first of all evaluate the usual communication patterns and existing problems within organization, as well the climate of the company, in order to find an innovation which would fit the needs of the employees. Furthermore, they should take into consideration the knowledge and skills which will be required in order to make use of the innovation, as well as employees' general willingness to try new technologies. Finally, the introduction of the innovation should be planned in more detail, could be supported more by the management, with sufficient information provided about the purpose of the innovation.

2. Following the selected methodological approach establishes a theoretically comprehensive foundation for further research on enterprise social networking tool adoption process in organizations. Future researchers could adopt the chosen research methodology for the needs of concrete situation analysis.

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SUMMARY IN ENGLISH

Increased usage of social media and continuing development of information and communication technologies has led to the emergence of enterprise social networking (ESN) tools: private social networks created for use within organizations. A growing number of companies worldwide (including in Lithuania) are implementing this new tool, however, in order to bring significant and positive changes, enterprise social networking has to be adopted individually by its intended users, which is not always the case. Despite a vast amount of existing innovation adoption research, a significant number of implementation failures still occurs. We believe this is due to a lack of knowledge about the particular innovation at hand and about the particularities of its adoption process.

The purpose of our study was to research the adoption process of enterprise social networking tool, with the following objectives of research: 1) provide a comprehensive view of ESN and its use in organizational setting; 2) analyse existing information and communication technology adoption models, with the focus on social networking; 3) prepare a theoretical framework based on scientific literature analysis for conducting a case study of ESN tool Yammer adoption; 4) determine factors affecting the adoption of Yammer in the selected organization and their importance for a successful implementation of ESN tools.

A qualitative research strategy was chosen and a case study was conducted. To overcome case study limitations, qualitative and quantitative methods were combined: review of existing primary literature, analysis of existing archival organization’s records (previous internal employees’ inquiry results) and semi-structured interviews with the Experts were followed by creating a short on-line

survey for all employees at the company. The research was carried out in the organization, where ESN tool Yammer was available for internal use for nine months, up until it was decided to discontinue its use due to a low rate of adoption.

The study revealed significant results about the process of ESN tool adoption in organization: key points for Yammer adoption were its introduction by the top management, the way it was perceived by the employees, individual characteristics of adopters and the nature of the social structure within organization. These results partially corresponded with other studies done in regards to technology adoption process.

This study provides a better understanding of enterprise social networking service adoption process within an organization and how it may lead to a more successful implementation of this type of tools in practice. It provides the answers for the organization which faced difficulties in adoption of Yammer to avoid repeat of failure with other ICT based tools. Furthermore, value was added to the information and communication technology adoption process scientific literature and deeper insights were gained into the main elements of successful adoption of ESN tools within the organization.

Keywords:
Adoption, diffusion of innovation, enterprise social networking, Yammer

SUMMARY IN LITHUANIAN

Vis didėjantis socialinių medijų naudojimas bei informacinių ir komunikacinių technologijų vystymasis tapo priežastimi vidinių socialinių tinklų atsiradimui – įmonės vidiniam naudojimui sukurti privatūs socialiniai tinklai. Pasaulyje (ne išimtis ir Lietuva) vis daugėja įmonių, kurios diegia tokius įrankius, tačiau teigiamiems pokyčiams pasiekti, vidiniai socialiniai tinklai turi būti priimti ir iš tikrųjų naudojami kiekvieno iš įmonės darbuotojų. Deja, tai įvyksta ne visada. Nepaisant inovacijų diegimui skirtų tyrimų gausos, nesėkmės diegiant vidinius socialinius tinklus išlieka dažnos. Autoriaus nuomone, taip nutinka dėl žinių apie diegiamą inovaciją bei specifinius jos diegimo procesus trūkumo.

Šio tiriamojo darbo tikslas buvo ištirti vidinio socialinio tinklo diegimo procesą. Šiam tikslui pasiekti išsikelti tyrimo uždaviniai: 1) pateikti išsamią vidinių socialinių tinklų bei jų naudojimo organizacijose apžvalgą; 2) išanalizuoti esamus informacinių ir komunikacinių technologijų priėmimo modelius, akcentuojant socialinius tinklus; 3) remiantis mokslinės literatūros analize paruošti teorinį pagrindą vidinio socialinio tinklo Yammer diegimo atvejo analizei; 4) nustatyti veiksnius darančius įtaką Yammer priėmimui pasirinktoje įmonėje bei jų svarbą sėkmingam

socialinio tinklo įdiegimui.

Darbo tikslui pasiekti buvo pasirinktas kokybinio tyrimo metodas ir atlikta atvejo analizė. Siekiant sumažinti atvejo analizės ribotumus, buvo sujungti kokybiniai ir kiekybiniai metodai: esamų pirminių šaltinių apžvalga, esamų organizacijos archyvų įrašų analizė (vidinės darbuotojų apklausos rezultatai) bei pusiau struktūruoti Ekspertų interviu, kuriuos sekė trumpa internetinė apklausa, skirta visiems įmonės darbuotojams. Tyrimas atliktas įmonėje, kurioje vidinis socialinis tinklas Yammer veikė 9 mėnesius, kol buvo sustabdytas dėl žemo vartojimo lygio.

Tyrimas atskleidė reikšmingus su vidinio socialiniu tinklo Yammer priėmimu įmonėje susijusius veiksnius: vadovų pristatymas apie vidinį socialinį tinklą Yammer, tai kaip šį tinklą vertino darbuotojai, individualios darbuotojų savybės, bei nusistovėjusi socialinė struktūra organizacijoje. Šie rezultatai dalinai atliepia kitų tyrimų apie technologijų priėmimo procesus rezultatus. Remiantis empirinio tyrimo rezultatais buvo padarytos išvados bei rekomendacijos.

Raktiniai žodžiai:
Inovacijų difuzija, vidiniai socialiniai tinklai, Yammer

SUPPLEMENTS

APPENDIX 1. Semi-structured Expert Interview Guide

Interview Questions

What is your position in the company?

- *How long have you been working in this company, what is your over-all experience in this type of position?*
- *What responsibilities and activities it covers?*

1. Diffusion of information in the organization:

a. How does the communication and diffusion of information function in the company?

b. What communication tools, channels are used?

c. In individual level, in groups, between different departments, between different subdivisions?

2. I would like you to remember and explain how it was decided to adopt an internal social network?

a. Was there a specific need for that?

b. Was there a specific problem?

c. Why it was decided that an internal social network would help? What was expected?

d. For what particular reasons Yammer was chosen to be implemented?

e. Who was involved in the decision to implement an internal social network?

3. What was the implementation/adoption process of internal social network in organisation?

Technological aspects.

a. How was the implementation of the application planned?

b. Are certain people responsible for Information technologies in organization?

c. What was the beginning of implementation, how did the process of installation of the application and registration went?

d. Who was responsible for maintenance of the application?

People and the process.

a. How the employees of the organization were involved?

b. How the employees were informed about what was happening, were they informed about the

reasons, possibilities?

c. How did the diffusion of information about Yammer and its usage go, after establishing the possibility to use it?

d. Who was providing the information, through which channels?

e. Was there training for employees? What sort of training?

f. Was it possible to choose whether to use Yammer or not?

g. Other aspects and remarks about the beginning of the project?

5. What were the changes in organization after starting to use internal social network service?

a. Did the employees use it? Who, for what purposes?

b. Were there any visible benefits?

c. Were there any problems?

6. When and how it was decided to discontinue this project?

a. For how long was Yammer in use / accessible?

b. What were the reasons for deciding not to continue using Yammer?

c. In your opinion, why did the employees themselves did not accept this innovation? What were the reasons?

e. How was it decided to discontinue the project? Was it an individual or collective decision?

7. Which circumstances in your opinion were the most important in adopting an internal social network?

a. Which stage? The beginning, how it was decided to use, the implementation process itself?

b. The attitudes, characteristics of the employees?

8. How would you evaluate the diffusion of information in the organization at present?

a. To compare the before and after the project.

Closing remarks

1. Based on your own experience could you elaborate on what was learned while trying to adopt internal social network, what should be taken into account when implementing such innovation in organization?

2. Perhaps you have some remarks, something that has not been mentioned?

Thank you very much for your participation!

APPENDIX 2. Online Survey for the Employees

Vidinio socialinio tinklo diegimas organizacijoje

Esu Asta Tiškutė, Komunikacijos ir kūrybinių technologijų magistrantūros Mykolo Romerio universitete studentė. Šiuo metu rašau baigiamąjį magistro darbą ir atlieku tyrimą apie vidinių socialinių tinklų naudojimą organizacijose.

Kadangi Jūsų darbovietėje buvo diegiamas įmonėms skirtas socialinis tinklas „Yammer“, būčiau labai dėkinga, jeigu atsakytumėte į keletą toliau pateiktų klausimų.

Kiekvieno iš Jūsų nuomonė ir patirtis labai svarbi ir vertinga, net jeigu patys nė karto nesinaudojote šiuo vidiniu socialiniu tinklu.

Apklausa yra anoniminė. Jos metu surinkti duomenys bus apibendrinti ir atsakymų nebus įmanoma susieti su Jumis asmeniškai. Gauta informacija bus saugoma laikantis konfidencialumo principo, naudojama tik moksliniais tikslais ir jokie konkretūs duomenys (kaip įmonės pavadinimas) nebus viešinami.

Dėkojame už Jūsų laiką ir nuoširdžius atsakymus.

Prašome įvesti informaciją apie save:

Amžius:

Iš kurios šalies esate (prašau nurodykite Lietuvos, Latvijos, Rusijos ar įrašykite kitą šalį):

Koks Jūsų darbo stažas šioje įmonėje (*nurodykite skaičių metais*):

Pirmiausia prašau atsakyti į keletą klausimų apie Jūsų požiūrį ir patirtį kalbant apie informacines ir komunikacines technologijas apskritai (pasirinkite vieną Jums labiausiai tinkantį atsakymą):

1. Kaip dažnai naudojatės socialiniais internetiniais tinklais (pvz. „Facebook“)?

- ☐ Visai nesinaudoju (arba rečiau, nei kartą per mėnesį)
- ☐ Retai (kartą ar kelis per mėnesį)
- ☐ Dažnai (kelis kartus per savaitę)
- ☐ Labai dažnai (kelis kartus per dieną)

2. Kaip įvertintumėte savo gebėjimus naudotis įvairiais socialiniais internetiniais tinklais (pvz. „Facebook“, „LinkedIn“, „Google+“ ar kt.)?

- ☐ Nesu pratęs naudotis
- ☐ Gebu naudotis pagrindinėmis funkcijomis (skaityti kitų pranešimus, išsiųsti žinutę)
- ☐ Esu pakankamai įgudęs, lengvai suprantu, kaip naudotis įvairiomis funkcijomis
- ☐ Esu labai įgudęs ir pripratęs naudotis įvairiais socialiniais tinklais

3. Įvertinkite žemiau pateiktus teiginius pasirinkdami labiausiai Jūsų nuomonę atitinkantį atsakymą:

	Visiškai nesutinku	Nesutinku	Nei sutinku, nei nesutinku	Sutinku	Visiškai sutinku

1. Jeigu išgirsčiau apie naują informacinę technologiją, ieškočiau kaip ją išbandyti.	☐	☐	☐	☐	☐
2. Iš esmės, aš dvejoju išbandyti naujas informacines technologijas.	☐	☐	☐	☐	☐
3. Tarp savo kolegų aš dažniausiai esu pirmasis, kuris išbando naują informacinę technologiją.	☐	☐	☐	☐	☐
4. Man patinka eksperimentuoti su naujomis informacinėmis technologijomis.	☐	☐	☐	☐	☐

Vidinio socialinio tinklo „Yammer“ pristatymas įmonėje

Prašau prisiminti, kaip Jūsų įmonėje buvo diegiamas vidinis socialinis tinklas „Yammer“. Tai privatus socialinis tinklas, skirtas padėti greitai ir lengvai susisiekti su bendradarbiais, dalintis grupinio darbo informacija, vykdyti projektus ir kt. „Yammer“ turėjo tapti erdve, kurioje būtų galima dalintis ne tik darbine, bet ir asmenine, laisvalaikio, aktualia informacija.

4. Prisiminkite, kaip buvo pristatyta ši naujovė, kaip apie ją pirmą kartą išgirdote (susirinkimo metu, el. laišku ar iš bendradarbių). Apsvarstykite ir įvertinkite žemiau pateiktus teiginius, pasirinkdami labiausiai Jūsų asmeninę nuomonę atitinkantį atsakymą:

	Visiškai nesutinku	Nesutinku	Nei sutinku, nei nesutinku	Sutinku	Visiškai sutinku
1. Man užteko informacijos apie vidinio socialinio tinklo „Yammer“ diegimą mūsų įmonėje.	☐	☐	☐	☐	☐
2. Man iš pat pradžių buvo aišku, kokiu tikslu mūsų įmonėje diegiamas vidinis socialinis tinklas „Yammer“.	☐	☐	☐	☐	☐
3. Vidinis socialinis tinklas darbe man atrodė reikalingas.	☐	☐	☐	☐	☐
4. Sužinojęs apie vidinį socialinį tinklą „Yammer“, maniau, jog įmonėje jis būtų naudingas.	☐	☐	☐	☐	☐
5. Būčiau labiau linkęs išbandyti vidinį socialinį tinklą „Yammer“, jeigu šią naujovę pristatytų ir siūlytų naudotis vadovas.	☐	☐	☐	☐	☐

Dabar prašau prisiminti nors vieną konkretų atvejį, kuomet naudojotės vidiniu socialiniu tinklu „Yammer“. Būtent kam tada jį naudojote? Kokiu tikslu ir kaip jį naudojote apskritai, dažniausiai?

5. Prisiminkite, ar buvote prisiregistravęs ir nors kartą prisijungęs prie vidinio socialinio tinklo „Yammer“ platformos?

- ☐ Taip
- ☐ Ne *(prašau pereiti prie 9 klausimo)*

6. Ar naudojotės vidiniu socialiniu tinklu „Yammer“ norėdamas...

	Ne, nesinaudojau	Taip, tačiau retai	Taip, dažnai	Taip, labai dažnai tam naudojau
1. Gauti su įmone susijusios informacijos (paskaityti, kas ką parašė, pažiūrėti gimtadienius, kolegų kontaktus ir pan.)	☐	☐	☐	☐
2. Neformaliai bendrauti su kolegomis, pasidalinti įdomia naujiena, pasiūlymais ir pan.	☐	☐	☐	☐

3. Spręsti su darbu susijusius klausimus.	☐	☐	☐	☐

7. Kaip įvertintumėte savo aktyvumą naudojantis vidiniu socialiniu tinklu „Yammer“? *(naudotis reiškia ir skaityti, ieškoti informacijos, ir pačiam rašyti, komentuoti, įkelti ką nors)*

- ☐ Pabandžiau naudotis vieną ar porą kartų, iškart nepatiko ir nebesinaudojau.
- ☐ Iš pradžių naudojausi, tačiau greitai nustojau.
- ☐ Naudojausi aktyviai iš pradžių, tačiau ilgainiui visai nustojau.
- ☐ Naudojausi viso laikotarpio metu, tačiau retai (kartą ar kelis per mėnesį).
- ☐ Naudojausi aktyviai viso laikotarpio metu (bent kartą ar kelis per savaitę).

8. / 9. Prisiminus savo naudojimąsi vidiniu socialiniu tinklu „Yammer“, prašau įvertinkite žemiau pateiktus teiginius pagal tai, kiek labai jie atspindi Jūsų patirtį ir nuomonę apie būtent šią komunikacijos ir informacijos sklaidos priemonę:

	Visiškai nesutinku	Nesutinku	Nei sutinku, nei nesutinku	Sutinku	Visiškai sutinku
1. Man buvo patogu naudotis vidiniu socialiniu tinklu „Yammer“.	☐	☐	☐	☐	☐
2. Naudojantis „Yammer“ buvo lengviau atlikti kai kuriuos darbinius projektus (susikelti didesnius failus, turėti visą informaciją vienoje vietoje).	☐	☐	☐	☐	☐
3. Nemanau, kad vidinis socialinis tinklas „Yammer“ buvo tinkama vieta dalintis su darbu susijusiai informacijai.	☐	☐	☐	☐	☐
4. Man buvo lengva išmokti naudotis vidiniu socialiniu tinklu „Yammer“.	☐	☐	☐	☐	☐
5. Su „Yammer“ sunaudodavau mažiau laiko tam tikriems darbo klausimams spręsti (rasti reikalingą informaciją, sekti diskusiją ir darbo progresą).	☐	☐	☐	☐	☐
6. Vidinis socialinis tinklas „Yammer“ man atrodė veiksminga priemonė dalintis su kolegomis ne tik darbine, bet ir asmenine, laisvalaikio informacija.	☐	☐	☐	☐	☐
7. Man buvo patogu naudotis vidiniu socialiniu tinklu kartu su jau įprastomis bendravimo priemonėmis (el. paštu, Skype ir kt.).	☐	☐	☐	☐	☐
8. Vidinio socialinio tinklo „Yammer“ teikiama nauda komunikacijai ir informacijos sklaidai man buvo matoma.	☐	☐	☐	☐	☐
9. Bendravimas „Yammer“ nebuvo efektyvus, nes per mažai darbuotojų aktyviai juo naudojosi (t.y. dalis informacijos vis dar buvo perduodama kitomis komunikacijos priemonėmis).	☐	☐	☐	☐	☐
10. Man buvo sudėtinga naudotis vidiniu socialiniu tinklu „Yammer“.	☐	☐	☐	☐	☐

Diegiant tokią naujovę kaip vidinis socialinis tinklas yra svarbus organizacijoje įprastas bendravimas.

9. Prašau apmąstykite ir įvertinkite žemiau pateiktus teiginius pagal tai, kiek jie atspindi Jūsų asmeninę nuomonę:

	Visiškai nesutinku	Nesutinku	Nei sutinku, nei nesutinku	Sutinku	Visiškai sutinku
1. Manau, jog įmonės darbuotojai būtų labiau linkę naudotis tokia naujove kaip vidinis socialinis tinklas „Yammer“, jeigu patys vadovai apie tai pasakotų, skatintų naudotis.	☐	☐	☐	☐	☐
2. Nebuvau linkęs naudotis vidiniu socialiniu tinklu „Yammer“, nes nesijaučiau galintis laisvai dalintis man įdomia informacija su visais bendradarbiais.	☐	☐	☐	☐	☐
3. Mano nuomone, jeigu mūsų įmonėje būtų daugiau nuoširdaus noro atvirai bendrauti tarp darbuotojų iš skirtingų skyrių, tai paskatintų dažniau naudotis ir internetinėmis bendravimo priemonėmis (pvz. ir tokia platforma kaip vidinis socialinis tinklas „Yammer“).	☐	☐	☐	☐	☐
4. Būčiau labiau linkęs išbandyti vidinį socialinį tinklą „Yammer“, jeigu juo siūlytų naudotis man artimi kolektyvo žmonės.	☐	☐	☐	☐	☐

10. Jeigu pildant apklausą Jums kilo minčių ar pastebėjimų apie aplinkybes, svarbias vidinio socialinio tinklo „Yammer“ diegimui Jūsų įmonėje, ir norite jomis pasidalinti, tai galite padaryti čia:

APPENDIX 3. Factors found important for ESN tool Yammer adoption process

Group of important factors	Main aspects	Comments from Case study	Support in Literature
Introduction by the top management	Contingent innovation-decision	Was there a choice to use or not to use Yammer	Rogers (2003) Davis (1989) Korpelaimen and Kira (2013) Majlath, 2012
	Who and how is introducing Yammer	Newcomer vs senior manager E-mail vs face to face invitation	
	What is (not) communicated about Yammer	Consistency in presenting the purpose of Yammer	
	Training	Compulsory or not	
	Number of initial users (enthusiasts)	Encouragement from management for others to join	
The way ESN is perceived by the employees	How useful Yammer is for: 1) work 2) informal communication	Different perceptions of Yammer's purpose seemed to relate to different perceptions of its usefulness	Rogers (2003) Davis (1989) Benbasat (2007)
	How compatible it is with existing ICTs	Number of available communication platforms	
	How easy or complicated it is to use Yammer	Can vary greatly in degree, seems to relate to previous experience in SNS	
Individual characteristics of adopters	The ability and willingness to try something new	Relates to frequency and skills of using SNS in general	Rogers (2003) Agarwal and Prasad (1988) Davis et al. (2003) Hu et al. (2011) Alarcón-del-Amo and Lorenzo-Romero (2014)
	Age	Found to relate to the frequency and skills of using SNS in general	
	Trust in technology	Level of knowledge about the functioning of ESN tool	
Social structure within organization	Relationships between employees and departments	Internal communication problems	Rogers (2003) Davis et al. (2003) Verheyden and Goeman (2013)
	Usual communication patterns and problems within organization	Closed social groups, importance of social status	
	Organizational climate	Openness and sincerity felt among each other, being comfortable to share ideas	