**Aalto University
School of Economics**

The role of the intranet in enhancing communication and knowledge sharing in a multinational company: Create, store, retrieve, transfer, use and share information!

International Business Communication

Master's thesis

Marja Rajalampi

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AALTO UNIVERSITY SCHOOL OF ECONOMICS　　　　**ABSTRACT**
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The role of the intranet in enhancing communication and knowledge sharing in a multinational company:
"Create, store, retrieve, transfer, use and share information!"

Objectives of the study
The starting point of this thesis was the two-year old intranet of the case company. The personnel of the company had not used the intranet as actively as the management had wished. In the long run, the global intranet was supposed to become the main internal communication channel. The aim of this study was to find answers to the following three questions: What are the roles of the intranet in multinationals in general and in the case company in particular? How could the intranet be managed so that most of the personnel would become active users of the intranet? How could new technology enhance multidirectional communication and knowledge sharing through the intranet in multinationals and, specifically, in the case company?

Methodology and theoretical framework
The investigation of other multinationals was carried out by exploring earlier research and literature on internal communication. An intranet survey was conducted in the case company. The survey questionnaire consisted of 19 multiple-choice questions (quantitative study) and four open-ended questions (qualitative study). The questionnaire was filled in by 485 employees located in 30 countries. A theoretical framework adapting two theories published earlier by Van der Hooff (2006) and Stenmark (2002) was created to support the study. Van der Hooff (2006) and Stenmark (2002) argue the following: 1) personalisation has a positive impact on the use of the intranet by facilitating among other things information retrieval in everyday work and increasing communality, and 2) the intranet ought to encompass not only the information perspective but also the awareness and communication perspectives.

Findings and conclusions of the study
The findings of the study showed that the role of the intranet in the case company was still mainly to act as a top-down information distribution channel and information archive. It had not yet reached the role intranets in many other multinationals had as a multidirectional collaboration and knowledge sharing forum. In order to become the most important internal communication tool and channel - actively, diversely and regularly used by the whole personnel - the intranet has to be developed in several ways. The most crucial issues include 1) improving the search function, 2) increasing the user help and training, 3) clarifying the structure, 4) removing the out-of-date information and dead links, as well as 5) updating and maintaining the internal contact directory. Additionally, the use of the intranet could be enhanced with the help of new technology and benchmarking social media, for example, utilising personalisation and features of Wikipedia, discussion forums and blogs.

Key words: international business communication, internal communication, intranet, personalisation, knowledge sharing, multinational, collaboration

Intranetin rooli monikansallisen yrityksen viestinnän ja tiedonjaon tehostamisessa: "Luo, varastoi, hanki, välitä, käytä ja jaa tietoa!"

Tutkimuksen tavoitteet

Tämän tutkielman lähtökohtana oli case-yrityksen intranet, joka oli ollut käytössä kaksi vuotta. Yhtiön henkilöstö ei ollut käyttänyt intranetiä niin aktiivisesti kuin johto olisi toivonut. Pitkällä tähtäyksellä globaalista intranetistä on tarkoitus tehdä yhtiön sisäisen viestinnän pääkanava. Tutkimuksen tarkoitus oli löytää vastaukset kolmeen kysymykseen: 1) Mitkä ovat intranetin roolit monikansallisissa yrityksissä yleensä ja erityisesti case-yrityksessä? 2) Miten intranetiä voitaisiin hallita niin, että suurimmasta osasta henkilöstöä tulisi intranetin aktiivikäyttäjiä? 3) Miten uusi teknologia voisi edistää monensuuntaista viestintää ja tiedonjakoa monikansallisten yritysten intraneteissä ja erityisesti case-yrityksessä?

Tutkimusmenetelmät ja teoreettinen viitekehys

Muita monikansallisia yrityksiä koskeva selvitystyö tapahtui tutustumalla jo tehtyihin tutkimuksiin ja sisäistä viestintää käsittelevään kirjallisuuteen. Case-yrityksessä tehtiin kyselytutkimus yrityksen intranetissä. Kyselylomakkeessa oli 19 monivalintakysymystä (kvantitatiivinen tutkimus) ja neljä avointa kysymystä (kvalitatiivinen tutkimus). Lomakkeen täytti yhteensä 485 ihmistä 30 eri maasta. Tutkimuksen tueksi muodostettiin viitekehys kahden tutkijan, Van der Hooffin (2006) ja Stenmarkin (2002), aiemmin julkaistuja teorioita mukaillen. Van der Hooffin (2006) ja Stenmarkin (2002) teorioiden pääväittämät olivat seuraavat: 1) personalisointi vaikuttaa positiivisesti intranetin käyttöön helpottamalla muun muassa jokapäiväiseen työhön kuuluvaa tiedon hakua ja lisäämällä yhteisöllisyyttä, ja 2) intranetin pitäisi käsittää tietonäkökulman lisäksi myös tietoisuus- ja viestintänäkökulmat.

Tutkimuksen tulokset ja johtopäätökset

Tutkimuksen tulokset osoittavat, että case-yrityksen intranetin rooli on vielä suureksi osaksi ylhäältä alaspäin tapahtuvan tiedottamisen areenana ja tiedon varastona olemista, eikä sillä ole sitä aktiivisen monensuuntaisen vuorovaikutus- ja tiedonjakokanavan roolia, joka monien muiden kansainvälisten yritysten intraneteillä jo on. Jotta intranetistä tulisi case-yrityksen tärkein sisäisen viestinnän työkalu ja kanava, jota koko henkilöstö käyttäisi aktiivisesti, monipuolisesti ja säännöllisesti, sitä olisi kehitettävä monin eri tavoin. Tärkeimpiä kehittämisen kohteita ovat 1) hakutoimintojen parantaminen, 2) käyttötuen ja -koulutuksen lisääminen, 3) rakenteen selkeyttäminen, 4) vanhentuneiden tietojen ja toimimattomien linkkien poistaminen sekä 5) henkilöstöhakemiston päivittäminen ja ylläpito. Intranetin käyttöä voidaan lisäksi tehostaa uudenaikaista teknologiaa soveltamalla ja sosiaalisesta mediasta oppia ottamalla esimerkiksi personalisointia ja Wikipedian, keskustelufoorumien ja blogien ominaisuuksia hyödyntäen.

Avainsanat: kansainvälinen yritysviestintä, sisäinen viestintä, intranet, personalisointi, tiedonjako, monikansallinen yritys, vuorovaikutus

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1 INTRODUCTION

Charles (2009, pp. 11-19) sees successful corporate communication as a goal-oriented function requiring both communication knowhow, knowledge of business and language skills. As suggested by her, communication knowhow is an essential component of business knowhow, and by improving communications, employees sharpen the competitive edge of their companies. Accordingly, as argued by Trkman and Trkman (2009, p. 1087), companies need efficient and reliable ways of communicating and transferring information and knowledge among their employees.

In class, Charles (2009, p. 9) asked her International Business Communication (IBC) students how they would define business communication. Here are some of their answers:

- Interactions through messages
- Knowledge sharing in organisations
- Dialogues through which organisations reach their goals
- The glue that ties the organisation together
- The corporate function that maintains business relations

In these definitions, the emphasis is on process with multiple actors – or a two-way dialogue. They also highlight the functional role of communication: it is goal-oriented with both internal and external functions.

Traditionally, as noted by Cornelissen (2008, p. 195), internal communication has been defined as communication with employees internally within the organisation. Nonetheless, the increased use of new technologies (e.g. internet blogs and e-mails) has meant that messages to employees do not always remain inside the organisation at the same time blurring the boundaries between internal and external communication.

Kalla (2006, p. 25) points out that definitions of internal communication vary a lot depending on which angle communication is looked from. She suggests that the simplest definition is the one of Bovée and Thill (2000, p. 7) who state that internal communication means the exchange of information and ideas within an organisation.

Argenti (2003, p. 128) explains internal communication more from a human resource point of you saying that it creates an atmosphere of respect for all employees within a company. On the other hand, Quirke (2008, p. 31) defines internal communication through its role in the company: "Internal communication is a means to an end, not an end in itself – and part of its rationale is to help turn strategy into action by engaging, informing and directing employees."

Several researchers (e.g. Yates, 2006; Willem, Buelens & Scarbrough, 2006; Cutlip, Center & Broom, 2006; and Quirke, 2008) have pointed out that efficient communication practices should include two-way communication channels that facilitate employee input, feedback and knowledge sharing, and a broad range of technologies to support communication activities. According to Yates (2006, pp. 71-72), many companies have the conception that effective communication is a result of superior financial performance because successful firms simply have more money to spend on communication. Nevertheless, her research findings turn this argument upside down: first-rate companies consistently deliver superior financial performance using effective internal communication as their "secret weapon".

This thesis work stems from my interest in this "secret weapon". More particularly, I wanted to take a deeper look at intranets not only as the main internal communication tool but also as the channel and facilitator of knowledge sharing in multinational companies. A lot of research has been carried out on intranet implementation (e.g. Duane & Finnegan, 2003; Damsgaard & Scheepers, 2000; and Bansler, Damsgaard, Scheepers, Havn & Thommesen, 2000) but very little about how to develop it further and how it has worked in multinationals as a communication, collaboration and knowledge-sharing tool. One reason might be the fact that intranets are used internally within companies and protected by firewalls and confidentiality so that researchers seldom have the opportunity to get access to the necessary data.

Most of the definitions of an intranet found in literature refer to its internet-like technology and its internal use within an organisation. Accordingly, Choo, Detlor and Turnbull (2000, p. 71) define an intranet as "a set of application built on an internet-enabled infrastructure meant for internal use only by employees of a single

organisation". Duane and Finnegan's (2003, p. 133) intranet is "an application of internet technology within an organisation for the purpose of information dissemination, communication, integration and collaboration".

Sinickas (2005, p. 32) sees an intranet as an "online network within an organisation that uses internet technologies in such a way that its users are able to find, create, utilize, and share information internally on the Web". Lehmuskallio (2006, p. 291), collecting the essence of several definitions, states that "intranets are networks, built and maintained within the company firewalls, offering internet technology and various contents for the exclusive use of the company staff" and adds herself that intranets are built and maintained for information storage and retrieval as well as for enhancing communication within the organisation.

The present study is conducted for the case company, and it reports, first of all, on how other multinationals use their intranets to enhance multidirectional communication and collaboration among their employees and units. Furthermore, based on earlier research and this study, the case company will get recommendations for the future development of its intranet. Keeping in mind the fact that the global intranet in the case company was launched only two years ago, it will be good to find out how to avoid pitfalls and teething troubles that other companies have experienced.

Even though presenting a rather practical angle towards the topics – intranets in multinationals – the present study is fully in line with the research field of Internal Business Communication (IBC) since, according to the characterisation given in the IBC website, the mission of the IBC Unit at Aalto University School of Economics is "to enhance the business knowhow of internationally operating companies by contributing to greater understanding of the strategic role of communication in international business operations" (www.hse.fi/ibc). Furthermore, Kankaanranta (2009, p. 25) reviews IBC Master's theses and writes in her introduction as follows: "The IBC unit has always encouraged its students to take on research projects that are grounded in the everyday communication practices of globally operating players". Hence, my research project is clearly situated within the scope of IBC.

1.1 Research objectives, arguments and questions

Van der Hooff (2006, p. 14) gives four general complaints about intranets: 1) there is too much information on the intranet, 2) information is not properly categorised and organised, 3) it is difficult to navigate in the intranet, and 4) it is even more difficult to find the information one is searching for. Out-of-date sites and broken links are the most critical concerns in the intranet rebuilding project at Halifax Bank of Scotland studied by France (2007).

Cutlip et al. (2006) note that one of the most important goals of employee publications (newsletters, intranets, e-mails, newspapers etc.) is to create an opportunity for two-way communication. Willem et al. (2006) find a specific problem facing large firms and, in particular, multinational corporations: the unique knowledge "locked in" within business units that are geographically dispersed and relatively autonomous. As long as any knowledge remains inactive or tacit, it is of limited organisational value.

According to Bansler et al. (2000, pp. 33-34), the challenge of intranet developers is to find a golden mean between centralisation and decentralisation of power and to devise organisational structures and processes that encourage improvisations, experimentation, and learning and, at the same time, avoid confusion, chaos, and runaway costs. Another big challenge is to get employees convinced of the advantages of the intranet so that they will start using it on a regular basis, not only as their main information source but also as a collaboration channel leading to more discussion, innovations and thus developing the intranet further.

The objective of this research is, first of all, to find out how multinationals have developed their intranets during the last decade so that they would serve the companies as an effective and efficient internal communication, collaboration and knowledge sharing channel. Secondly, the aim is to find out the opinions of the present case company's users of the company intranet and of its functionalities as well as, at the same time, gather feedback on and ideas of how the intranet would become the best information and collaboration portal in the daily work of the company personnel worldwide. Finally, the ultimate goal of this thesis work is to give the intranet development team of the case company concrete recommendations on how they could

improve the technical and collaboration functionalities, contents, structure, layout and ownerships of the intranet so that it would be more actively utilised by all employees.

As a result of extensive examination of a number of previous studies and other research literature, simultaneously bearing in mind the case company and its challenges in the development project of the intranet, the following propositions have been drafted:

1. The role of the company intranet is not clear in all multinationals. Part of them would like to keep it mainly as a top-down information distribution channel while others would rather use it as an every-day tool to help their personnel carry out their work and share information and knowledge with their colleagues.
2. Ownership and control of different parts of intranets is not unambiguous, which leads, among other things, to unclear responsibilities among intranet content producers. This, in turn, results in out-of-date contents and poor quality of the intranet structure causing unwillingness among employees to use their intranet.
3. All potential of new technologies and interactive concepts in knowledge sharing through intranets has not been exploited yet.

In order to find out the validity of the above propositions, the following research questions are presented:

1. What are the roles of the intranet in multinationals in general and in the case company in particular?
2. How could the intranet be managed so that most of the personnel would become active users of the intranet?
3. How could new technology enhance multidirectional communication and knowledge sharing through the intranet in multinationals and, specifically, in the case company?

1.2 Case company

In this section, a brief introduction of the case company is given and the researcher's connection to this company explained.

The case company for this study is Globemec*, a stocklisted multinational engineering corporation with operations in 120 countries. This company was founded in 2005 by merging several world-wide companies. One of them had a global intranet and a few local intranets in different locations; one only had local intranets while the third did not actually have any intranet system at all. The challenging project to build a global internal communications system started in 2006 and the common global intranet was opened in October 2008.

Globemec provides an ideal setting for conducting international business communication research in terms of being a multinational with operations in approximately 120 countries and offices of its own in 50 countries. The company was founded in 2005 but its roots come from several companies in different industries and some of them are almost one hundred years old already. The company's interesting history gives a challenging opportunity to study the use of the company intranet in its different units worldwide.

The author of this thesis has worked for one of the units of Globemec from the year 1987. During these years I have had the opportunity to work both in internal, external and marketing communications. My work experience at Globemec affected this study giving me, first of all, interest in the topic of this thesis, i.e. intranet as an internal communications and knowledge sharing tool. Furthermore, my knowledge, experience and contacts made it easy for me to get an access to the internal documentation of the company.

1.3 Structure of the thesis

This thesis is divided into six chapters. This introductory Chapter 1 has described the background, research objectives, arguments and research questions. Chapter 2 – divided into six sections – gives an overview on previous literature and research done in this field. Section 2.1 describes the intranet's role in multinationals. Section 2.2 compares

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*A pseudonym 'Globemec' is used because the company prefers to stay anonymous.

intranets and other internal communication channels in terms of their advantages and disadvantages. Section 2.3 discusses centralised and decentralised intranets, followed by Section 2.4 that highlights information technology and its role in the intranet. Knowledge creation, storage, retrieval, sharing and use through intranets will be discussed in section 2.5. The theoretical framework for this thesis will be introduced in Section 2.6.

Chapter 3 will explain research methods, data collection and analysis as well as trustworthiness of the study. Chapter 4 will report on the findings of the study and it is followed by Chapter 5 where recommendations for Globemec will be given. Finally, Chapter 6 will conclude the study by summarizing the research with its main findings, presenting limitations of the study and giving suggestions for further research.

2 LITERATURE REVIEW

The exploration of previous literature and research presented in this chapter gives a general understanding of intranets and their use as a communication tool and knowledge sharing forum in multinationals. Keeping in mind the objectives of this research as well as the propositions and research questions presented in the second chapter, the main issues focused on in the literature review are as follows:

- Intranet's role as an internal communications channel and a collaboration tool
- Intranet's advantages and disadvantages compared to other channels
- Power and control of intranets (centralisation/decentralisation)
- Information technology enhancing top-down, bottom-up and horizontal communication, and enabling personalisation that leads to communality and connectivity
- Knowledge creation, storage, retrieval, sharing and use through intranets

Each of these five issues will get a section of its own in this literature review chapter, starting with Section 2.1 that will discuss the intranet's role in internal communications. Section 2.2 focuses on the intranet's advantages and disadvantages in comparison with other communication channels highlighting also the "pros and cons" social media has brought to the world of the intranet. Section 2.3 concentrates on power and control issues of intranets introducing the benefits of both centralised and decentralised intranets. Section 2.4 explains how modern information technology used by intranets enhances internal communication and enables personalisation that leads to communality and connectivity. Finally, in Section 2.5, the intranet's role in knowledge creation, storage, retrieval, sharing, and use is discussed.

The chosen literature presents findings of empirical research conducted in several disciplines, among others international business communication, information technology, organisational psychology, strategy management, and knowledge management. The theories found in previous research help the presenter of this thesis work form a general overview of frameworks useful in studying internal communications and, more precisely, intranets in multinationals.

2.1 Intranet's role as a communication channel and a collaboration tool

A company intranet is defined in several ways by researchers: some of them take an information technology point of view speaking about "applications" (e.g. Choo et al., 2000; and Duane & Finnegan, 2003) while others see it with the eyes of co-operators and rather describe them as knowledge-sharing networks (among others, Sinickas, 2005; and Lehmuskallio, 2006). According to Cutlip et al. (2006, p. 237), an intranet is one of the employee publications that play an active role in sharing information and knowledge among employees and units worldwide. More precisely, as argued by Cutlip et al. (2006, p. 237) intranets create an opportunity for two-way communication in order to generate employee feedback, questions, and concerns in terms of inviting questions, seeking input and comments, as well as conducting surveys, and finally, reporting the results.

Troy (1988) gave more than twenty years ago six key roles for effective internal communications in time when intranets were very rare internal communication channels. Nevertheless, we can say that those roles – 1) to improve morale and foster goodwill between employees and management, 2) to inform employees about internal changes, 3) to explain compensation and benefit plans, 4) to increase employee understanding of the company and its products and services, organisation, ethics, culture, and external environment, 5) to change employee behaviour to be more productive, quality oriented, and entrepreneurial, and 6) to encourage employee participation – are all played by today's intranets, thus leaving a minor importance to other internal communication channels, such as personnel magazines, face-to-face meetings or e-mails.

The company Starbucks, as Quirke (2008, p. 285) found, does not use its intranet merely as a communication channel but also as a core business tool that streamlines business practises and provides a means of business management. This intranet also provides a place for the most current reference information on human resources and its procedures. Despite that, it acts as a daily messaging channel to help drive the business effectively why it provides two-way communication for quick surveys and rapid feedback from employees.

As stated by Lehmuskallio (2006, pp. 288-289), multinational companies, convinced of the great advantages the intranet offers in internal communication, have been building and developing intranets at an increasing pace during the past two decades. Lehmuskallio's study shows that almost 93% of the largest companies operating in Finland had an intranet, and nearly 68% considered the intranet the most important source of internal company information. She suggested that the intranet had superseded face-to-face meetings and e-mail correspondence in internal communication. According to Cutlip et al. (2006, p. 10), there are companies - IBM among others - where the intranet has replaced the traditional co-worker grapevine and immediate supervisor as the preferred and most credible source of information for employees.

Sinickas (2009, p. 10) has found similar results in her studies confirming that before 2004 nearly half of all the top-two preferred sources when searching information were people, but as of 2004, this ranking was taken by electronic sources, including intranets, e-publications and mass e-mails. Printed communications material has remained steady over time, accounting for about one-fifth of the preferred sources selected. Nowadays, employees seem to be more comfortable accessing information electronically. They still rely on their managers for direction and interpretation, whereas intranets are displacing managers' role as human filing cabinets, as noted by Sinickas (2009, p. 10).

Sinickas' study (2004, p. 32) showed that more than half of the employees wanted to use an intranet as a communication tool, but not to the exclusion of other channels. As argued by Sinickas (2010, p. 10), face-to-face channels are still the most preferred type of communication at organisations with less than 5,000 employees (43%), and electronic channels are preferred more at medium and large companies (42% and 43% respectively). Her study showed that employees at middle-sized organisations prefer their intranets more than publications and supervisors. When more people have access to online sources, they are more likely to prefer them as primary sources. In Lehmuskallio's (2006, p. 305) research, 68% of the respondents (who were communication practitioners in multinationals in Finland), considered the intranet the most important channel of internal information.

The preferences of information sources depend on the working places and the level of their technology, too. Accordingly, it seems natural what Sudhakar and Patil (2006, p. 33) report in their research: a worker in a plant prefers bulletin boards to the intranet because the boards are closer to his work area than the intranet access. As found by Sinickas (2005, pp. 37-38), electronic sources were more greatly preferred by office-intensive organisations, followed by manufacturing companies and companies with many field employees working outdoors. The preference for electronic sources among office-based companies was about 50% higher than among those with many employees working outdoors.

The survey of Schleimer and Riege (2009, p. 35), carried out at BMW, gave somewhat contradictory results. Despite the existence of a digital portal for marketing-related knowledge, most managers perceived BMW's marketing portal on their intranet the least effective communication channel compared to face-to-face communication, telecommunication, and e-mail systems connecting different units. One reason was that context-specific local or regional knowledge was rarely applicable to other units. Additionally, the intranet was generally a one-way knowledge disperser used solely by central management and leading markets, such as the German and UK markets to inform other units located in smaller markets.

In her study, Sinickas (2004, p. 34) found that only 35% of employees actively looked at their intranets at least once a day and another 27% at least weekly (see Figure 1). More than one-fourth of employees either never looked at their company intranet or accessed it less than monthly. Lehmuskallio (2006, pp. 304-305) who carried out a similar survey within multinational companies in Finland, found that estimated two thirds of the employees used the company intranet at least daily and the rest of them at least weekly.
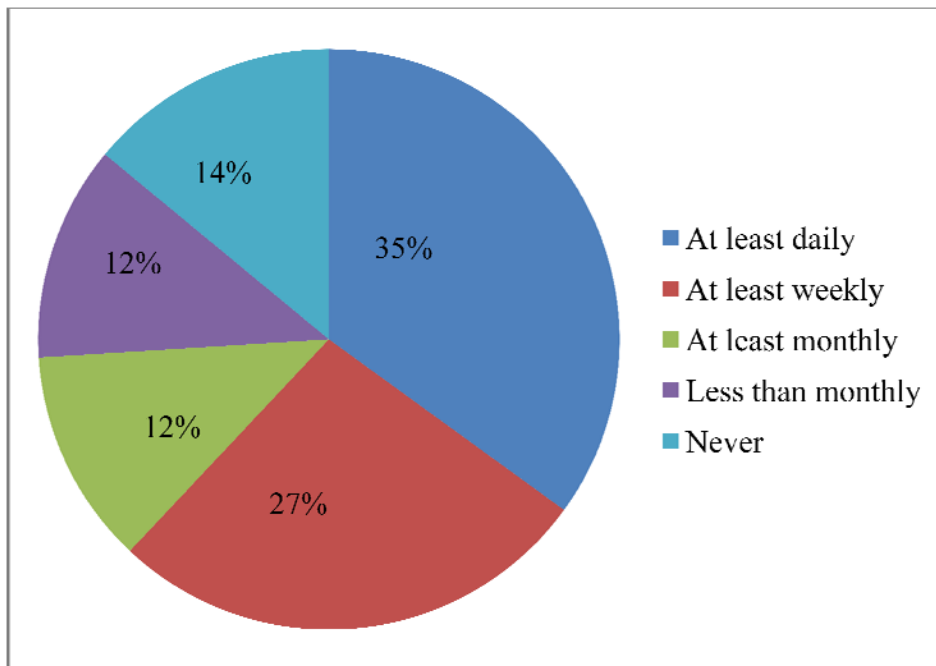
Figure 1. How often do employees access intranets? (by Sinickas, 2004, p. 34).

Sinickas (2004, p. 34) investigated the reasons why employees go to their intranets. The research showed that about half of employees access intranets as part of their regular work routines (see Figure 2). The other half of them goes there only when they have a need – either when prompted by the company or when they want to visit the site for their own reasons. As many as 58% of those who never visited the intranet said they did not have time to visit it. Another one-fourth of these people said the main reason was that either it was too difficult to find information on the intranet or they did not know how to access it in the first place. Finally, 15% of the respondents said the information on the intranet was not relevant to them.
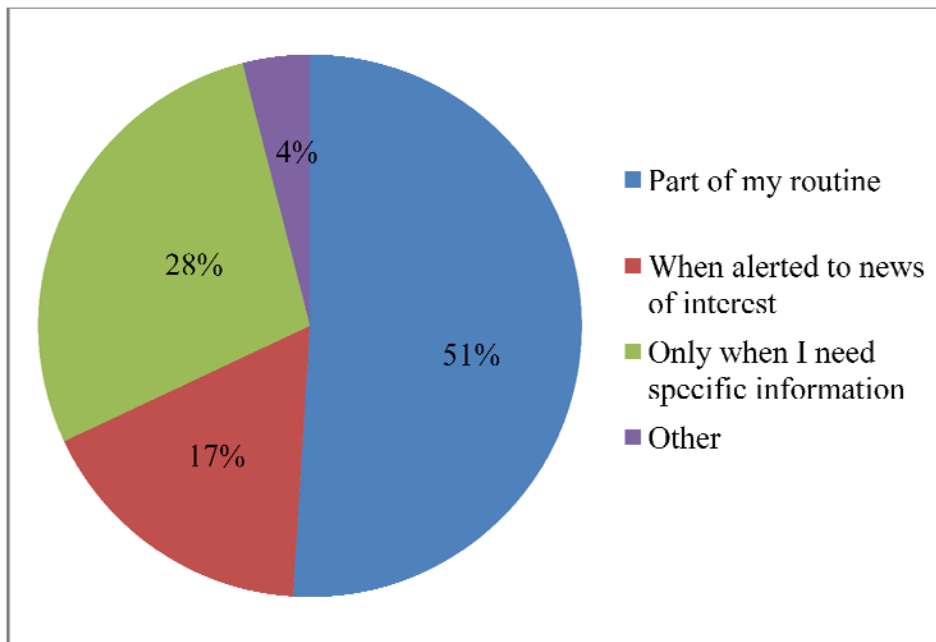
Figure 2. Reasons why employees visit intranets (by Sinickas, 2004, p. 34).

According to McConnell (2007, p. 24), the corporate intranet should be the first place where employees look for company information. The author sees it as the hub for information, collaboration and everyday work. Nevertheless, according to the study Intranet Strategies Today & Tomorrow conducted in 2006 (McConnell, 2007, p. 24), few organisations have achieved this degree of relevance in their intranets. The results revealed that intranets are used to distribute information but, to a lesser degree, increase productivity and facilitate collaboration. Half of the respondents polled 'absolutely' to the statement "The intranet is perceived to be the primary means of delivering information to where it is needed within the organisation". Only twenty per cent said 'absolutely' to it being "a collaboration platform, innovation trigger and knowledge-sharing tool", while nineteen per cent called it "a productivity tool."

In the Swedish company that Edenius and Borgerson (2003, p. 128) used as the case company in their research the main reason for implementing the intranet was to keep the company together. This was done by giving relevant information to the employees and improving their possibility to share knowledge. The intranet was said to help the employees work more professionally and efficiently.

It has also been suggested to use the company intranet more effectively in strategy communication. As pointed out by Kuivalahti and Luukkonen (2003, p. 49), functionalities of intranets enable sharing of exactly the same contents and quality of strategy communication within the whole company, among all its employees. According to Hämäläinen and Maula (2004), strategy communication that can be enhanced through the intranet, comprises of everyday work communication supporting employees in their tasks so that activities are aligned with the strategy. Furthermore, the intranet is a perfect channel to communicate about strategy-related changes in the organisation and its structure, processes and working practices as well as to collect ideas and feedback from employees.

From the above research findings we can conclude that the importance of intranets has been growing in most multinationals even if the intranet has not totally replaced the other, more traditional, internal communication channels. With improved technology and better access to the intranet, more companies will definitively use it not only as an "electronic pin-board" or information archive but also as a forum for collaboration and knowledge sharing in everyday work in the future. At Globemec, the aim is to develop the global company intranet so that it will become the most important internal communication channel.

2.2 Intranet's advantages and disadvantages compared to other channels

In case multinationals want their intranets to become common communication and knowledge sharing forums for all their employees, it is evident that intranets must have more advantages than disadvantages in comparison with other internal communication channels. Lehmuskallio (2006) argues that the speed and cost-effectiveness are the main advantages gained using the intranet instead of other internal business communication channels. Furthermore, she underlines the intranet's adequacy for situations in which a company needs to distribute information simultaneously to the entire staff located at various countries and time zones.

Employees often complain about receiving too much information though the electronic information channels. Nevertheless, we have to distinguish between the "push" and "pull" electronic sources. As explained by Sinickas (2005, pp. 43-44), "push" information sources are those that are proactively brought to an employee's attention. Among the electronic channels, these would be mass e-mails and electronic newsletters. "Pull" channels (intranet and internet sites) are passive in that once the information is posted it may never be noticed until someone affirmatively decides to browse to see if there is anything new or interesting.

Based on the findings of Sinickas (2005, pp. 43-44), there is a higher preference for "push" sources that alert employees when there is something new people should know about. This kind of alerts can be set in the intranets as well. Holtz (2008) argues that some of the more successful modern communication practices combine today both "push" and "pull" approaches by sending e-mails or periodic e-newsletters with headlines and brief summaries of news with embedded links that let people jump to the intranet or company website for more details, if desired.

Lehmuskallio (2006, p. 289), similarly to other researchers (e.g. Schleimer & Riege, 2009; Sudhakar & Patil, 2006; and Bansler et al., 2000), has acknowledged the weaknesses that make communication via intranet challenging and complicated. As a couple of examples, she gives challenges with media accessibility and technology usability as well as problems related to information overload. Partly because of being a "pull medium", i.e. dependent on its users' activity, an intranet often contains out-of-date information, duplicated documents, and links that do not take the user anywhere.

The research of Edenius and Borgerson (2003, p. 128) investigated how and why the investment managers in a Swedish company used the intranet and how that information helped them do their jobs better and improve their skills. The main objectives of the intranet were to give relevant information to the employees, improve the possibility to share knowledge and be able to structure knowledge thus helping people work more professionally and efficiently.

As stated by Scott (1998, p. 6), universal reach in communications both makes globalisation possible and enables more effective collaboration. For example, synchronous communication such as e-mail and the intranet, with posted electronic documents, electronic discussion groups and transaction systems, is more convenient across different time zones and thus more ideal for global communications than synchronous communication by telephone, teleconferencing and videoconferencing. According to Scott (1998, p. 6) intranets in multinational companies have connected people from different departments and countries that have never interacted before.

To the discussion of whether companies and their employees nowadays suffer from information overload, Holtz (2008, p. 17), referring to a recent study of Forrester Research, brings a few critical differences there are between social media and traditional intranet content:

- The content that overloads employees is "pushed" to them through the traditional intranet. Social media are mostly "pulled" by employees who want that particular content. It is hard to get too much information about the things that are important. This can be called "proactive information delivery".
- Social media is not just content - it is conversation. Only those who want to participate in a conversation do so.
- Social media streamline processes that have contributed to the current environment of information overload.

As suggested by Holtz (2008, pp. 17-18), the same advantages could easily be taken into use in intranets, too. Looking at YouTube, he wondered why a teenager could find an amateur video on the site quickly and easily, but finding a video of a corporate presentation in a company's archives was next to impossible if you did not know the exact title of the file. He goes on with his critics, notifying that any employee who watches a video can tag and comment on it. Other employees can find a relevant video by searching - not only using the video's title but also the tags and comments added by their colleagues.

According to Burrus (2010, pp. 50-51), innovative companies are beginning to embrace social networking tools as a way to enhance communication, information sharing, and collaboration, thereby allowing them to implement many innovative business practices. One of these tools is Facebook through which large organisations can connect all of their employees. Some companies are already using an internal, secure version of Facebook. This has helped them to increase their internal networking and collaboration.

As an example of a smart use of Wikipedia, Burrus (2010, pp. 50-51) mentions a large manufacturing company with engineers in locations around the world that increased problem solving and collaboration by creating an internal, secure version of Wikipedia for sharing information on parts and service offerings as well as repair and maintenance instructions. Accordingly, companies could create a version of Wikipedia of their own to foster education and training as well as enhance information sharing.

Discussing the advantages of the new media, Holtz (2008, p. 17) states that wikis and blogs allow team members to create, edit, approve, publish and manage content all in one place, with virtually no training required. Another critical dimension of social media is that it actually makes information easier to find and filter. Additionally, social bookmarking allows any employee to bookmark any page he or she finds useful and tag it with relevant keywords. Other employees searching those keywords will find content their colleagues have already found useful. Sometimes this may even help employees and companies avoid "re-inventing the wheel".

The case company of the present study is one of those multinationals which have operations in several continents covering different time zones, cultures and languages. The previous research underlines the easiness of an intranet to reach all personnel at the same time all over the world. Cost-effectiveness is another clear advantage compared with, for example, face-to-face meetings or printed publications. Finally, characteristics offered by new social media can be easily adapted to company intranets, thus reaching possibilities that are not possible to be achieved by traditional communication tools.

As a counterbalance to these advantages, there exist a few challenges to get an intranet used by all employees within a multinational. The main reported disadvantages are

involved in media accessibility and technology usability as well as information overload. Furthermore, intranets often contain out-of-date information, duplicated documents, and dead-end links, which decrease the relevance of the information employees need in their everyday work. At Globemec, prior to the survey, the main reported challenges were connected to the difficulties in finding relevant information.

2.3 Power and control of intranets (centralisation/decentralisation)

Bansler et al. (2000) carried out a study of intranet development processes in two large European corporations which they called 'PharmaCo' and 'PlayCo'. PharmaCo had adopted an improvisational approach to intranet implementation, characterised by an exploratory attitude toward the technology, a commitment to learning by doing, and openness toward local initiatives. This liberal approach had stimulated creativity and helped create a large community of active users. The disadvantage of this approach was a lack of overall structure and coordination. The policy of letting all departments and units create their own websites made the intranet difficult to navigate. Furthermore, the quality of many individual websites was relatively poor.

The other company, PlayCo, had adopted a structured, top-down approach to intranet implementation, characterised by a strong emphasis on careful planning and a cost-conservative attitude toward the technology. The result was a well-structured intranet with a professional design and a focus on efficient dissemination of "official" information. However, this approach left little room for local initiatives and informal experimentation with the technology. It tended to reinforce traditional communication patterns and power structures and impede more informal sharing of information and knowledge.

Edenius and Borgerson (2003, pp. 127-128) carried out a survey for which material was collected at a small company in Sweden interviewing sixteen members of the organisation. Even though everyone in the company was encouraged to contribute to the content of the intranet, very few persons succeeded in doing that. Thus, finally, the company had to assign people to be responsible for in-putting information. For example, one person was in charge of fundamental information (about new colleagues, timetables, and common meetings), and another person was in charge of publishing

news. A third person was in charge of administrating data and statistics about different investment projects.

In her research, Lehmuskallio (2006, pp. 309-310) found that strict control and a centralised approach to content creation may result in unbalanced intranet content and a skewed view of company issues as well as in decreased use of the intranet. Respondents in Lehmuskallio's (2006, pp. 309-310) study were asked to estimate whether content creation was centralised or decentralised, as shown in Figure 3. The majority of the respondents (20 out of 25) said their company creates intranet content in a way that reflects both central control and distributed content creation. Advantages of decentralised content creation included dispersed maintenance loads, efficient content updates, and contributions by those who know particular issues well. Advantages of the centralised model included more control with improved quality.

In all companies that took part in Lehmuskallio's (2006, pp. 309-310) study, both corporate communications and human resources personnel contributed in creating intranet content. Some respondents reported that experts in particular areas were encouraged to be more active in producing content. These findings, as seen from Figure 3 below, reflect a tendency for the hybrid approach to intranet content creation: the intranets have centralised control but decentralised content creation.
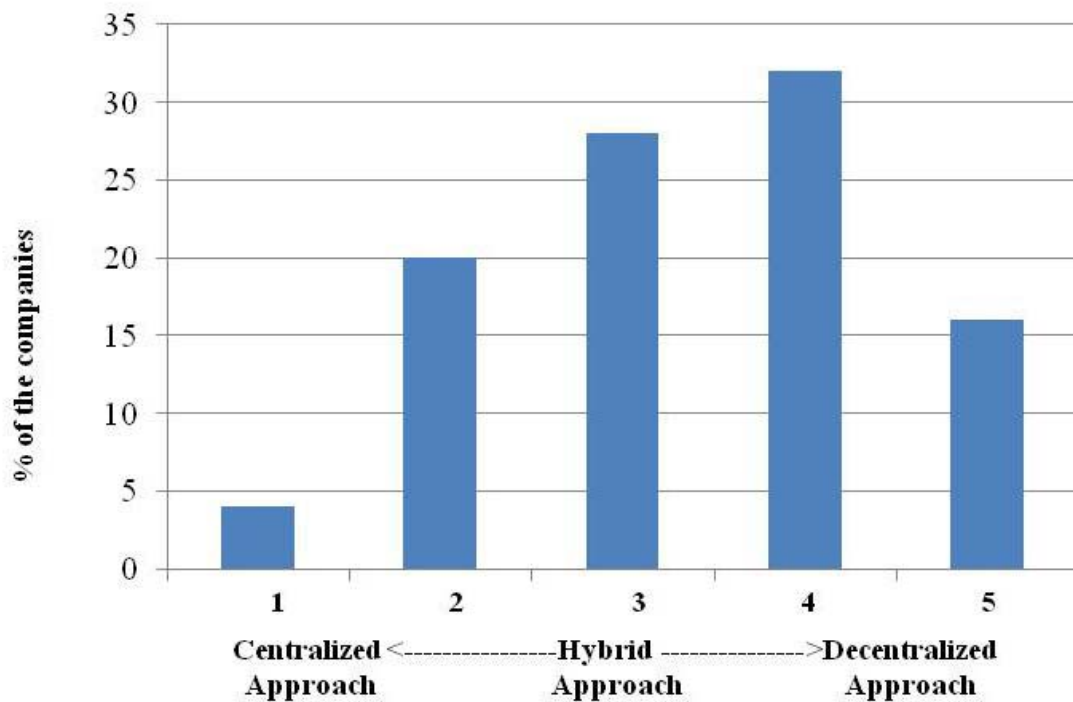
Figure 3. Content creation approach chosen by the company (applied from Lehmuskallio, 2006, p. 310).

It is not easy to decide whether to go for a centralised or decentralised approach because both concepts have their advantages and disadvantages. Bansler et al. (2000, pp. 33-34) argue, on the one hand, that decentralisation and efforts to stimulate local initiative and creativity may result in:

- Information overload, caused by an uncontrolled expansion of websites and services. Lack of standardisation and coordination may lead to chaos on the intranet and make it almost impossible to navigate.
- Low quality of information, caused by the distribution of responsibility among several local contributors. It is much more fun to create a new website than to "maintain" and update an existing site.
- Uncontrolled costs, caused by the difficulty in managing how much time local contributors (business units, departments, or projects) spend on developing their websites.

On the other hand, as found by Bansler et al. (2000, pp. 33-34), centralisation and a strong emphasis on organisational control and planning may result in:

- Underutilisation of the technology because users may perceive the intranet as a top-down initiative, not very useful, and not relevant to them.
- Lack of innovation, caused by centralised decision making, organisational control mechanisms, and bureaucratic planning procedures that prevent new ideas, experiments, and learning at the local level.
- "Partisan activities" by displeased decentralised actors who, for instance, may set up "underground" intranets out of reach from the central webmaster.

As can be concluded from the research projects of Bansler et al. (2000), Lehmuskallio (2006) and Edenius and Borgerson (2003), the challenge to find a golden mean between centralisation and decentralisation of power is not easy. Companies should favour organisational structures and processes that encourage improvisations, experimentation, and learning that would, at the same time, avoid confusion, chaos, and runaway costs. The question about whether to decentralise the structure and content creation has been raised at Globemec. At the moment, there are approximately 60 communication practitioners who have the authorisation to edit and publish content while their hands are very much tied in the technology of the programme SharePoint that is used which means that new ideas can be executed only in case SharePoint supports them.

2.4 Information technology and use of internet-based information systems

Advancing technology has changed the way communication is produced, distributed, displayed, and stored. As Cutlip et al. (2006, p. 10) fairly note, the digital age makes communication faster than ever before with even those messages meant only for internal use becoming global in a matter of mere seconds. Bansler et al. (2000, p. 3) rate intranet technology as the great unifier – as an interactive and reflective medium that is multi-purpose, richly networked, and offers a seamless way to integrate text, graphics, sound, and video.

Lehmuskallio (2006) sees the modern intranet technology support communication from various directions: top-down, bottom-up, and horizontally across the organisation.

Amurgis (2007) uses the same terminology arguing that the top-down communication can be seen as a one-way conversation crafting messages by corporate leaders for the rest of the company. Most intranets start this way but then proceed to bottom-up communication. Cornelissen (2008, pp. 204-205) describes the complementary nature of corporate information and communication systems through the concepts of downward, upward and side-to-side communication which seems to correspond to Lehmuskallio's and Amurgis' top-down, bottom-up and horizontal concepts.

Scott (1998, p. 3) mentions technology standards and organisational need as drivers in reaching two intranet objectives, firstly, to communicate across geographic, organisational and functional barriers and, secondly, to collaborate among sites and with suppliers and customers. She states that the intranet was originally welcomed as the solution to faster information systems, access to legacy system data, integration of incompatible systems, and progress towards the 'paperless office'. Moreover, intranets enabled work-flow management and project management.

Damsgaard and Scheepers (2000, pp. 137-138) created a model of success and failure of the intranet technology based on an in-depth interpretive field study of intranet implementations carried out in large Danish and South African organisations (see Figure 4). They identified that there are essentially three existential crises and four different stages when implementing an intranet. The first crisis at the initiation stage emphasises the intranet's dependence on resources that must be in place for the intranet to be implemented. Therefore, there is a need for the intranet to be supported by a sponsor who nurtures the intranet. Without a sponsor there is a danger that the intranet cannot evolve beyond its experimental beginnings. The second crisis easily attacks at the contagion stage emphasising the need for a critical mass of both content and users to co-exist for the intranet to self-expand and become self-sustaining. If this is not met, the intranet will stagnate and regress to being an experimental technology.

The third crisis, occurring at the control stage, deals with the planning and procedures that must be in place for the intranet to stay up-to-date and useful. If the intranet "grows wild", it eventually becomes chaotic. The wilderness of information becomes impossible to manage and update. Users will perceive the intranet content with mistrust

and look for other ways to obtain data. Again, the result is that the intranet stagnates. Therefore, the researchers propose that each stage poses a key challenge that must be overcome in order to proceed to the next stage. If the challenge is not met, the intranet comes to a stop. Success and failure at each stage relates to the organisational "pervasiveness" of the technology. Ultimate success means that the intranet becomes institutionalised in the organisation. Failure during any stage means that the intranet stagnates.
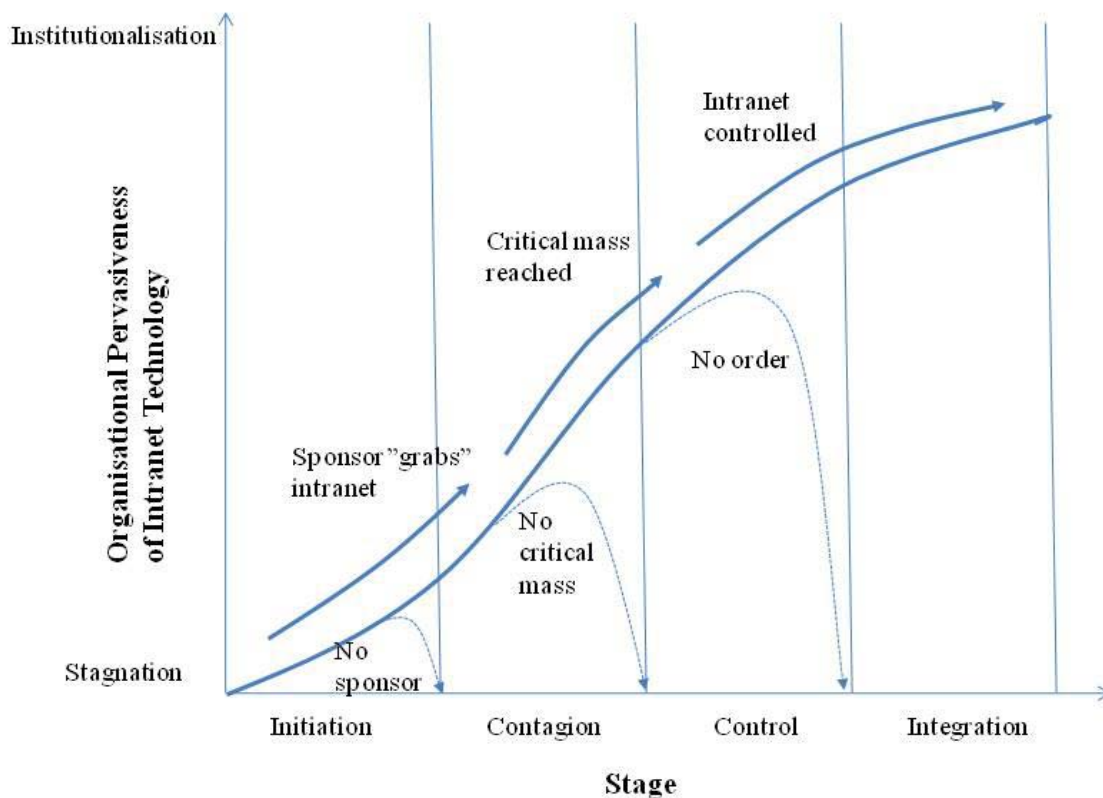
Figure 4. Success and failure in the management of intranet technology (applied from Damsgaard & Scheepers, 2000, p. 137).

The stages of intranet development with their crises can be closely related to the centralisation or decentralisation of the intranet that was discussed in Section 2.3. At Globemec, the next stage seems to be integration but in order to reach it, the company has to make sure the intranet is neither let to "grow too wild", nor create too strict frames and rules for it.

Almost all information technology today is focused on compressing the time to acquire, use and share information to zero. Szukala and O'Conor (2001) argue that electronic systems help companies retrieve, process, store and distribute information easier and faster. The use of computer technology, for instance an intranet, increases the speed and accuracy of information transfer and knowledge sharing and also provides the possibility to process large amounts of data and store them in a relatively small space.

Even if the use of modern technology in internal communication does not only depend on the latest available technical qualities but also on business policies and resources of companies, it is easy to agree with Trkman and Trkman (2009, p. 1087) who claim that the spread of internet-based information systems has changed the way employees work and interact with their colleagues. Today they spend more and more time in communicating "online" or "digitally" compared to the twentieth century.

Detlor (2003, p. 128) found that in most companies internet-based information systems – including intranets – concentrate on supporting information search. Based on the results of his study, he suggests that information technology designers should create features and functions that facilitate or match the predominant information uses of these systems. For instance, to support search, intranets should provide features such as 'frequently asked questions' or 'best practices'. Likewise, to support browsing and exploring, intranets could provide functions such as 'editorials', 'commentaries' and 'discussion areas' by connecting people together and encouraging the sharing of knowledge and new ideas.

Groot and Van der Hooff (2004) argue that a major role of collaboration technology is to coordinate people working at a distance and allow them to interact with distant data sources. In order to determine the possible contribution of personalisation to the use of an intranet, Van der Hooff (2006) used the Theoretical Technology Acceptance Model which identifies two key variables in explaining use of technologies: the technology's *perceived usefulness* and *perceived ease of use*. These perceived system characteristics are expected to influence an individual's attitude towards the system, which influences their intention to use it, which in turn ultimately leads to their use (or non-use) of the system.

In this light, a distinction to *individual use* and *collective use* made by Van der Hooff (2004) is useful. Individual use here means the use of collaboration technologies for individual information management (e.g. consulting relevant information, and registering information for individual use in forms of retrieval, reconstruction, and reminding). Collective use is the use of collaborative technologies for interpersonal collaboration and coordination (e.g. contributing information to the shared information base, answering questions on a discussion forum, looking for persons and finding out where to reach them, etc.). The realisation of collective goods through an intranet is strongly dependent on the extent to which members of an organisation make collective use of this medium.

The perceived usefulness of an information and communication technology is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance". The other key variable, perceived ease of use is defined as "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989, p. 320).

That survey was part of a larger research project of Van der Hooff, focusing on a user evaluation of the organisation's intranet. The methods how Van der Hooff explored individual and collective use, perceived ease of use, perceived usefulness, communality, connectivity and personalisation of intranet can be found in Table 1 below.

Table 1. Measurements used in the theoretical model of personalisation and intranet (Van der Hooff, 2006, pp. 8-9).

Parts of the user evaluation	How were they measured?
Individual use	User's frequency to visit the intranet to consult information
Collective use	Frequency with which the intranet was used for providing information
Perceived ease of use	A scale consisting of three items: 1. Clearness of the intranet structure 2. Easiness to find information 3. Easiness to lose one's way
Perceived usefulness	Does the intranet help people a) work more efficiently? b) contact those who are relevant to their work?
Communality	Importance of the intranet as a) Source of information for one's work b) An additional information channel in the work place
Connectivity	How easy is it to contact people who are relevant for one's work?
Personalisation	Do people have the functionality in the intranet to enable them to indicate the subjects of interest?

In his research, Van der Hooff (2006, pp. 10-11) found that intranets are often insufficiently adapted to particular users' needs. Hence, the researcher differs two advantages that can result from the sharing of individual information by an intranet: *connectivity* (the ability to reach other members in the organisation), and *communality* (the collective storing and sharing of information to which all members of the organisation have access).

Van der Hooff's (2006, pp. 10-11) findings proved that personalisation can have a positive contribution to the use of an intranet in terms of both communality and connectivity. On the contrary, personalisation obviously does not lower the effort of using the intranet by making it easier to search and navigate, but it does enhance the value of the intranet because information and other applications are more directly related to a user's work. Perceived usefulness positively influences individual use.

Furthermore, a lower effort in using the technology enhances its relative value for a user's work.

Van der Hooff (2006, pp. 10-11), as shown in Figure 5 below, found additionally a number of interesting relationships between personalisation, collective use, communality and connectivity. First of all, personalisation not only influences the use of an intranet indirectly (through perceived usefulness), but also directly: there is a direct, positive relationship between personalisation and both individual use and collective use. In other words, the opportunity to adapt the technology to one's own demands directly increases the extent to which it is used.

Van der Hooff (2006, pp. 10-11) found that connectivity was dependent on communality. The shared information base is apparently an important help in finding relevant people, their expertises and roles, their availability, and so on. Better and more complete information leads to more efficient contact between members of the organisation. Also, perceived ease of use was found to directly contribute to the emergence of both communality and connectivity as a consequence of system use – the easier the intranet is to use, the easier it is to build a collective information base and the higher the system's contribution to contacting relevant co-workers.
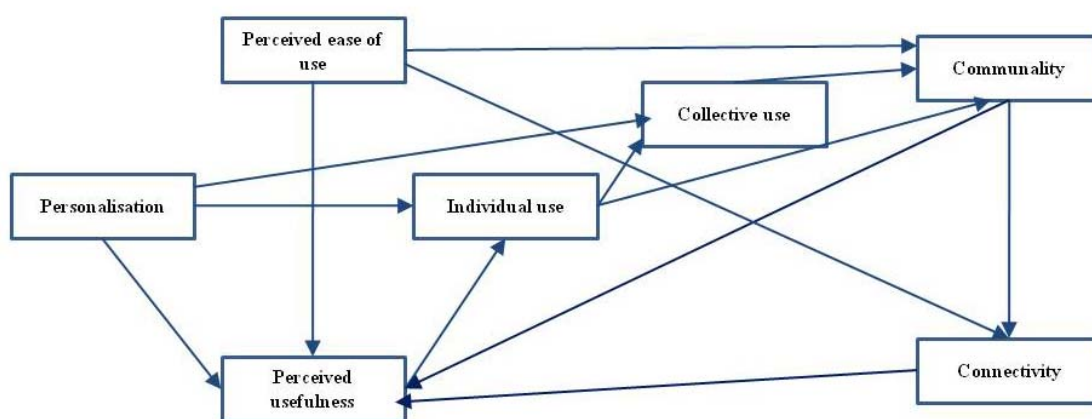

Figure 5. Empirical model - personalisation and intranet (applied from Van der Hooff, 2006, p. 12).

From Van der Hooff's (2006, p.12) empirical model in Figure 5 above we can conclude that the use of an intranet does lead to benefits in terms of both communality and

connectivity, and that personalisation has a positive contribution to the realisation of these benefits. Yuan, Fulk, Shumate, Monge, Bryant and Matsaganis (2005) made similar findings in their research: relevant information on the intranet is a strong motivation to contribute to that intranet. Accordingly, by lowering barriers and enhancing the visible value of an intranet to a user's work, personalisation may well be a means to overcome the often disappointing contribution of intranets to information sharing in organisations.

Several researchers agree on the positive influence of the modern technology on intranets. Cutlip et al. (2006), Bansler (2000) and Lehmuskallio (2006) suggest that it allows multidirectional online conversation within the company, between different units and employee groups. According to Detlor (2003), technology gives companies better possibilities to share knowledge. Finally, as argued by Van der Hooff (2006), a quantum leap is reached through personalisation: in case intranets are sufficiently adapted to each user's needs, they will easily become prioritised internal communications channels in multinationals.

For the intranet development team at Globemec the improvements related to the modern technology, as described above, will definitively be issues to be considered once they will take the next steps in their intranet's development. Multidirectional conversations and further personalisation of the intranet will be interesting options in the near future. The new version of the intranet programme, SharePoint, will give the technical frames for the development work.

2.5 Knowledge creation, storage, retrieval, sharing and use through intranets

Youngjin, Lyytinen and Dongcheol (2007, pp. 322-323) define knowledge sharing as "a process of creating a mutual stock of knowledge among individuals or groups – the knowledge that someone in the organisation already knows – through direct or indirect interaction". According to them, knowledge sharing takes place through structures, people and processes. Stenmark (2002, p. 1) argues that the ability to share and transfer knowledge within an organisation and amongst its members is a fundamental knowledge management process that can be greatly facilitated by the use of information technology in the form of e-mails, documents or Web pages.

According to Scott (1998, p. 3), the most far-reaching impact of the intranet is on organisational knowledge. She sees intranets provide organisations with opportunities to create knowledge. Chmiel (2008, p. 223) groups the available technologies for virtual organisations into two broad categories: 1) communication technologies for exchange of information and knowledge, and 2) collaboration technologies to create, store and utilise information and knowledge for co-workers.

As stated by Stenmark (2002, pp. 43-44), being an organisation-wide technology, an intranet should encourage people to actively use it not only as a place to look for information but as a collaboration tool, too. To support and facilitate everyday work and knowledge creation and sharing, an intranet ought to encompass more than just the information perspective. Hence, Stenmark (2002, pp. 43-44) has suggested a model – shown below in Figure 6 – where the intranet as a knowledge management environment is seen from three different perspectives: the information perspective, the awareness perspective, and the communication perspective.
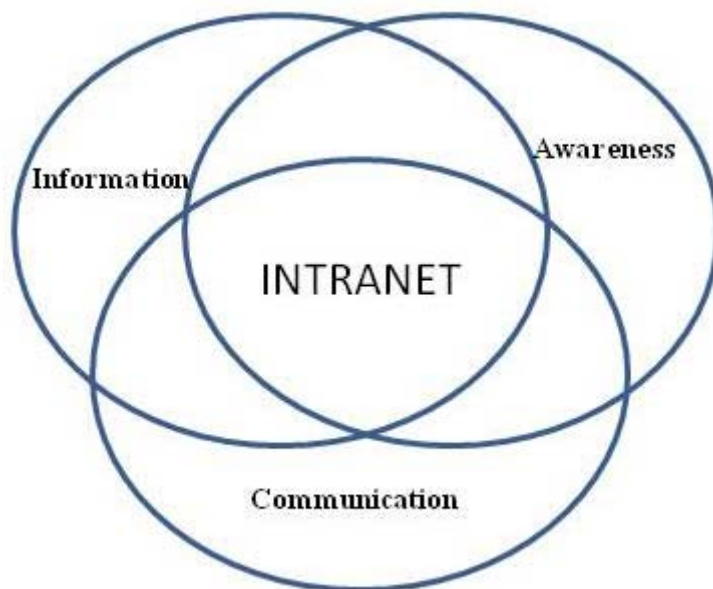

Figure 6. Three perspectives on the intranet based on three Web technology features: openness, linking and networking. (Stenmark, 2002, p. 44).

Stenmark (2002, pp. 44-45) states that the *information perspective* is the most common view of the intranet. When intranet users say they cannot find the information they are looking for, the most obvious reason they give is the intranet's poor structure. Nevertheless, another very simple reason is the fact that the information is not there in the first place. Even if the information is found, Stenmark (2002, pp. 44-45) argues, it does not necessarily lead to the desired result, e.g. sharing knowledge or exchanging ideas with colleagues.

Hence, as argued by Stenmark (2002, p. 45), the *awareness perspective* exploits links and connections to find other members in the organisation. Furthermore, to maintain the awareness perspective, and to avoid drowning in the information overload, Stenmark (2002, p. 45) recommends developing tools that can assist people by alerting when new and relevant information is added into the intranet. The awareness perspective can also help establishing communities of practice in terms of making intranet users aware of colleagues sharing their needs and interests.

Stenmark (2002, p. 46), suggests that the *communication perspective*, finally, enables employees to collectively share the available information when they use various forms of channels for conversations and negotiations. Offering workflows and co-ordinating routines as well as support for more informal collaboration such as shared whiteboards, project areas, and chat rooms through the intranet, the company can provide its employees means for working together and engaging in dialogue, thus transforming their knowledge to organisational benefit.

Szukala and O'Conor (2001) argue that the speed at which organisations acquire knowledge and put it to good effect has become one of the main competitive advantages. They urge companies to map their expertise using new technology – and letting that "map" be widely available. The process of knowledge sharing ensures employees to know where to go for task-critical information.

Accordingly, Stenmark (2002, p. 22) points out that the organisational members must be understood as actors and not merely as passive receivers of corporate information. Contributions from all members are important when seen from the knowledge

management perspective. Intranet applications must, therefore, be designed so that the technology actively affords user participation. This is a prerequisite for the intranet to function as a knowledge management environment. However, these activities must not increase the users' workload or oblige them to do things in addition to what the tasks at hand require.

According to Stenmark (2002, p. 43), today's intranets are, in general, populated by a small number of information providers, who publish official corporate material and general information. However, much of the information available in intranets is not used by the organisation's members, who instead need specific information. Leveraging the intranet means including the users and having them add content more closely related to the everyday activities they perform. Stenmark (2002, p. 43) suggests that allowing not only a narrow group of information professionals but the entire employee base to publish has a positive effect on organisational knowledge creation.

Youngjin et al. (2007, pp. 334-339) found the key challenge in knowledge sharing be how to effectively translate tacit knowledge into explicit knowledge through a diverse set of systems, structures, people and processes. They studied the way how two companies were merged becoming a company to act 'as a single company' in terms of knowledge sharing through their common intranet. Employees had to integrate knowledge resources from both companies, sales people were expected to offer complementary products and solutions that required a combination of these two companies, and employees in the research and development area were also expected to be aware of developments in other areas. A "knowledge Web" was created where all documents and other work-related information was uploaded.

Amurgis (2007, p. 8) describes that by establishing new interactive features, American Electric Power (AEP) created a special area of their intranet devoted to employee collaboration. These features included:

- A weekly multiple-choice poll, enabling employees to quickly register their opinions on company or societal issues.

- A weekly discussion with a carefully-chosen topic of broad appeal, soliciting employee perspectives and ideas, in full text.
- An online thank-you card application, so employees can thank their colleagues (privately or publicly) for a job well done.
- An online marketplace where employees can sell cars, furniture, and other items to one another.

As noted by Amurgis (2007), the online marketplace, in particular, turned out to be very popular among AEP employees. It was not only valuable because of its selling function but also in terms of getting employees into the habit of sharing and exchanging. It was the company's intention to further promote discussion and encourage knowledge exchange, so this was one of the forerunner methods to pave the desired culture.

At Globemec, an online global marketplace has been open approximately for one year. Unfortunately, it has not been actively used one reason probably being the fact that it is not too easy to sell, among other things, furniture or cars from one country to another. Obviously, this type of activity will be carried out through local intranets in the future.

Knowledge sharing seems to be one of the most important tasks of the company intranet as evaluated by, among others, Scott (1998), Stenmark (2002), and Szukala and O'Conor (2001). Intranets ought to be developed in such a way that organisational knowledge would be easy to share among colleagues, thus transferring tacit knowledge to the benefit of the organisation as stated by Stenmark (2002).

2.6 Theoretical framework

In this section, the theoretical framework is provided and explained to conclude earlier discussion and form the frame for the present study. The theoretical framework aims to illustrate the construction of the theoretical literature review and the empirical focus of the study.

In Figure 7 below, two theories presented earlier in subsections 2.4 and 2.5 are combined and used as basis for the theoretical framework of this thesis (ref. Figure 5 on page 27 and Figure 6 on page 29). As can be seen from Figure 6, the inner part of the

framework, i.e. the three circles, indicates the three perspectives of the intranet presented by Stenmark (2002, p. 44): information, awareness and communication.

As explained by Stenmark (2002, p. 45) when intranet is seen from the information perspective, its task is to provide the employees access to information, which is necessary for knowledge creation, and also offer them the access to the information. The awareness perspective facilitates communication allowing employees find each other and engage in dialogue. Stenmark's theory (see Section 2.5) argued that by making users aware of colleagues who have accessed the same information the awareness perspective can help establishing communities of practice, which increases successful communication and collaboration. As reported by Stenmark (2002, p. 46), the communication perspective, finally, enables employees to collectively share information and knowledge by supporting various forms of channels for discussions. The theoretical framework argues that none of these perspectives can work alone. They should not be isolated from each other but combined thus making sure that the intranet can serve all employees as a knowledge sharing platform at the same time utilising the three features found in Web technology: openness, linking and networking.

Van der Hooff (2006, p. 12), with his research findings, evidenced that intranet personalisation has a positive contribution to the use of intranet benefitting in communality (referring to the intranet's importance for one's work and an additional information channel in the work place) and connectivity (making it easier to contact those people who are relevant for one's work). Personalisation also enhances the value of the intranet in terms of perceived usefulness (i.e., helping people to work more efficiently). Perceived usefulness positively influences individual use of the intranet which, in turn, affects collective use. Additionally, there is a positive relationship between personalisation and both individual use and collective use. Even though personalisation does not enhance perceived ease of use as such, communality does benefit from perceived ease of use in the form of a clear intranet structure and easiness to find information in the intranet.

Accordingly, the features adapted from Van der Hooff's (2006) model "Personalisation and intranet" (personalisation, perceived ease of use, perceived usefulness, individual

use, collective use, connectivity and communality) are grouped in this framework so that each group relates to one of the three different perspectives – information, awareness or communication – presented in Stenmark's (2002) model (see Section 2.5). Personalisation, perceived ease of use, individual use and communality play a role in the information perspective; personalisation, perceived usefulness and connectivity affect on the awareness perspective; and personalisation and collective use have a positive impact on the communication perspective.

In the core of Figure 7, there is the intranet that utilises the characteristics from Van der Hooff's and Stenmark's theories described above. Accordingly, this theoretical framework argues that it is possible to develop the intranet in such a way that it will finally serve all personnel as a one-stop shop in all of their information seeking, communicating and knowledge sharing needs for their daily work.
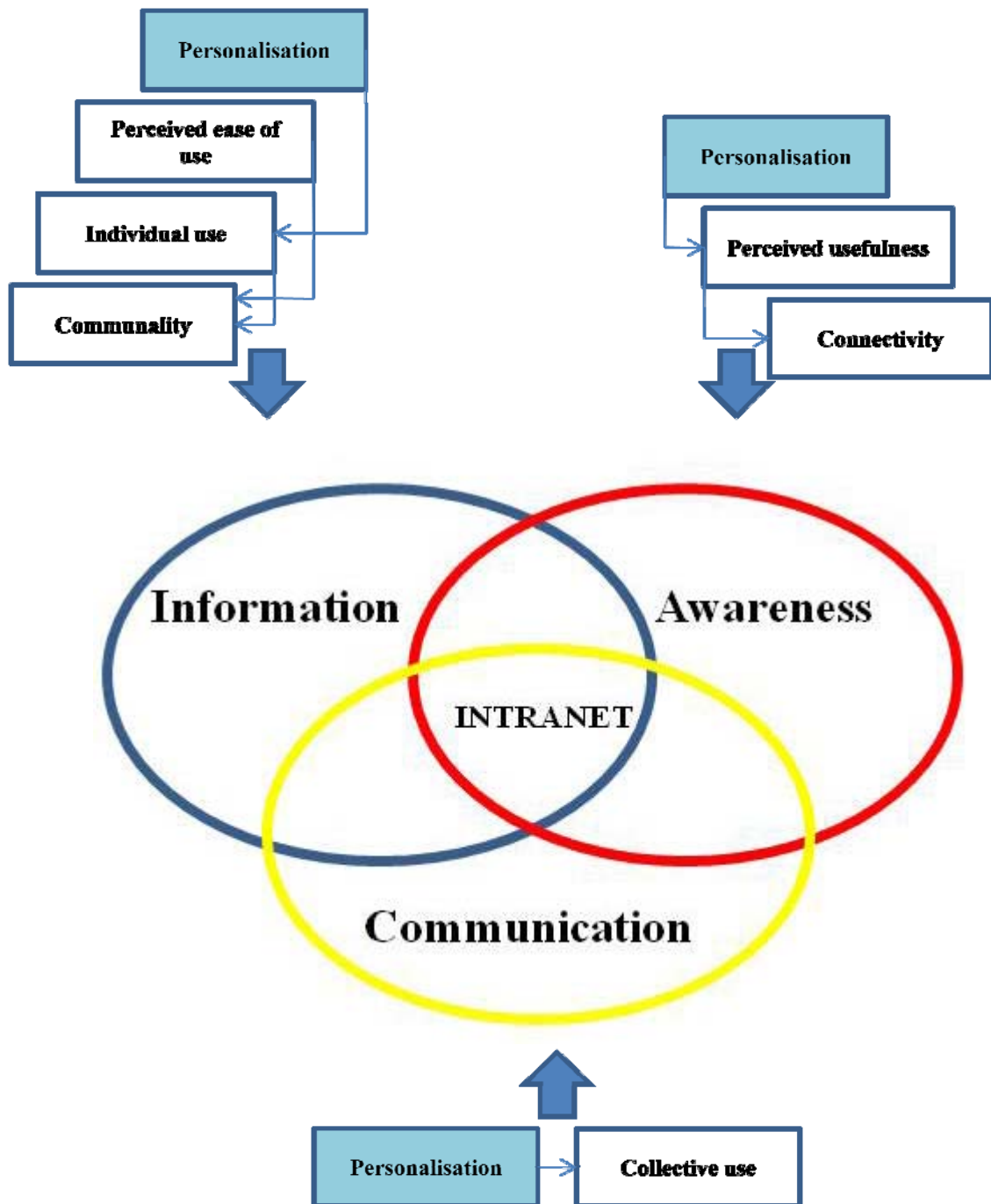
Figure 7. Theoretical framework (applied from Van der Hooff (2006, p. 12) and Stenmark (2002, p. 44)).

3 METHODS AND DATA

This chapter will present the research methods and explain the data analysis of the thesis. Furthermore, it will discuss the trustworthiness of the study.

3.1 Research methods

The research method is a single case study (one case company) which can be justified by the following reasons:

- In order to explore the area more in detail, seen from the case company's point of view, there was no reason to involve any other companies in the research.
- The presenter of this thesis is working in the case company and thus has a reasonably easy access to the necessary documentation and contacts.

The study incorporates an intranet survey. The survey represents both quantitative and qualitative research due to the fact that the survey questionnaire included both multiple-choice and open-ended questions. The survey, focusing entirely on the intranet and its role as the main internal communication channel at Globemec, was carried out in November 2010. The objectives of the survey were to find out how often people go to the intranet, why they visit it, and how satisfied they are with certain qualities of the intranet. They were also asked to give their opinion on whether internal social media would be beneficial in their daily work. Finally, the respondents were encouraged to suggest how the intranet could be improved. At the moment, there is neither internal social media nor any access to social media through the company network.

The theoretical framework composed of the basis of the literature and previous research was applied to this study in the analysis process.

3.2 Data collection and analysis

The data for this research were collected by conducting an intranet survey among employees of the case company.

The intranet survey (see Appendix 1) was carried out in November 2010. The survey was available on the intranet for a period of time of 12 days. Employees were informed

of the survey through an article on the global intranet's main page. The link to the survey questionnaire in the article encouraged participation as follows: "Please participate in a brief online survey and let us know what you think of the intranet. Give us your feedback and help improve the intranet to become the best information and collaboration portal in your daily work. It will take only a few minutes of your time and all responses will be processed confidentially and anonymously". The questionnaire was prepared using the programme within the intranet, i.e. SharePoint. At the time, approximately half of the employees (5000) had an access to the intranet and thus they would, in theory, have been able to participate in the survey. The number of participants finally amounted to 485.

Based on information received from communication practitioners from different units and countries prior to the survey, it was obvious that the amount of those who regularly visited the intranet was low. Thus, it was considered satisfactory to get those 485 replies. Some participants did not reply to all questions so that the average number of respondents per question was 480. When all open comments were gone through one by one, it was noticed that some respondents had reported useful, unnecessary and good intranet features under the same reply, or given ideas for improvements or other comments under the four first open questions. These answers and comments were transferred to their right places in the final results.

3.4 Trustworthiness of the study

Yin (2009) identifies three circumstances, when a case study is the preferred method: 1) "how" and "why" questions are being posed, 2) the investigator has little control over events, and 3) the focus is on a contemporary phenomenon in a real life context. In the research setting of the present study all these three circumstances apply. First, two of the three research questions are "how" questions. Second, the researcher has little control over the events of the study. Third, an intranet is very much a contemporary phenomenon in a real life context. Consequently, a case study setting is a very suitable method for this study.

Bryman (2004) notes that the evaluation criteria for the research design are not straightforward in the case study setting. According to him, it depends to a great extent

on what the researcher feels are appropriate criteria for the evaluation. In the present study, Globemec's needs have played an important role in the evaluation criteria. It was critical for them to find out the main advantages and disadvantages in their present intranet and also to gather new ideas from the intranet users. Furthermore, Globemec's intranet development team wanted to learn how other multinationals have handled the challenges concerning the activation of the use of the intranet among their personnel.

According to Bryman and Bell (2003, p. 288), trustworthiness of a study can be examined through external reliability, by which they mean the degree to which the study can be replicated. In other words, they argue that if the same study is repeated, it should lead to the same findings. If this survey had been repeated soon after the present survey in the case company, the findings would have remained unchanged. So, we can state that the external trustworthiness is reached in the present study. Additionally, in this study, the reliability is enhanced by detailed and descriptive analysing of the answers and comments gathered in the survey questionnaire.

According to Locke, Silverman and Spirduso (2004), internal validity reveals whether the research has been designed so that it truly deals with what is examined. The validity of this study is enhanced by the fact that the researcher works for the company, as explained in the introduction. Hence, there is a lot of information she has in her possession which has influenced the angle of the study and which has, to some extent, dictated the items investigated in the survey questionnaire.

External validity, on the other hand, questions whether or not the results will remain truthful when subsequently applied to people, situations or objects outside the original investigation. In the case study setting the question of external validity or generalisation is an interesting one due to the fact that a single case study is not necessarily so representative that its findings that can be applied more generally to other organisations. Hence, as stated by Bryman (2004, p. 50) and acknowledged by the researcher of this study, external validity in case company studies is not reached.

Daymon (2002, p. 108) suggests that a case design is especially useful for such communication related studies where the aim is to highlight and underline

communication processes. In this study, the function of the internal communications within the case company plays a central role in being responsible for the intranet and its development.

For the purposes of this study, the single case study design was a self-evident choice because the objective was to investigate a single multinational. Additionally, in case an intranet survey had been conducted in several multinationals the results would not automatically have been useful for all multinationals as a group.

4   FINDINGS

The findings of this thesis are based on the online intranet survey conducted at Globemec in November 2010. This chapter is divided into five sections. The first of them, Section 4.1, presents the details of the demographics of the participants gathered in the opening part of the survey questionnaire. After that, Section 4.2 describes the results of the second part of the questionnaire named "Use of the intranet". In this part, the questions handled the frequency of and reasons for visiting the intranet, which sections of the intranet employees use and which interactive features and social media they would like to have in the intranet. This part of the questionnaire ended with a question about the respondents' satisfaction level with the intranet.

Section 4.3 discusses the ways how respondents search information in the intranet. Section 4.4 goes through the results of the open questions in the last part of the questionnaire called "Other feedback" highlighting the opinions on what the participants consider useful, unnecessary and good with the intranet and what they would like to improve in it. Finally, Section 4.5 summarises all findings and connects them to the research questions, earlier research and the theoretical framework.

4.1 Demographics of the participants

The survey questionnaire was filled in by 485 employees of whom 35% were female and 63% male (2% did not reply to this question). At the time when the survey was conducted there were approximately 9,600 employees at Globemec of whom 16% were female and 84% male. So, the proposition of sex does not fully correspond to the real situation.

The age of the respondents divided into these groups: 11% under 30 years, 32% between 30 and 39, 33% between 40 and 49, 19% between 50 and 59 and 5% over 59 years. There are no statistics showing the same age division in the company but compared to the personnel statistics available at Globemec, the proposition of each age group matches the reality to a great extent.

The participants represented thirty different countries out of fifty where Globemec has offices of its own. One third (161) of all participants were located in Finland, one fifth

(102) in Sweden, 29 came from the United States, 21 from Norway, 20 from Singapore, 19 from Poland, 14 from Germany, 13 from the Netherlands, 10 from United Kingdom, nine from Malaysia and India, and eight from Spain. Six participants were located in China, five in Belgium and Japan, and four in Estonia.

As seen from Figure 8 below, the biggest differences in the proportions of home countries between employees and those who filled in the survey questionnaire are in Finland, USA and China. Approximately 11% of the employees are located in Finland but as many as 33% of respondents came from Finland. In USA the figures are nine versus six and in China ten versus one. The survey participants represented thirty different countries out of those fifty where the company has own personnel. The amounts of employees in those countries where no questionnaires were filled in were very small. Thus, the representativeness of the nationalities within Globemec can be considered very good.
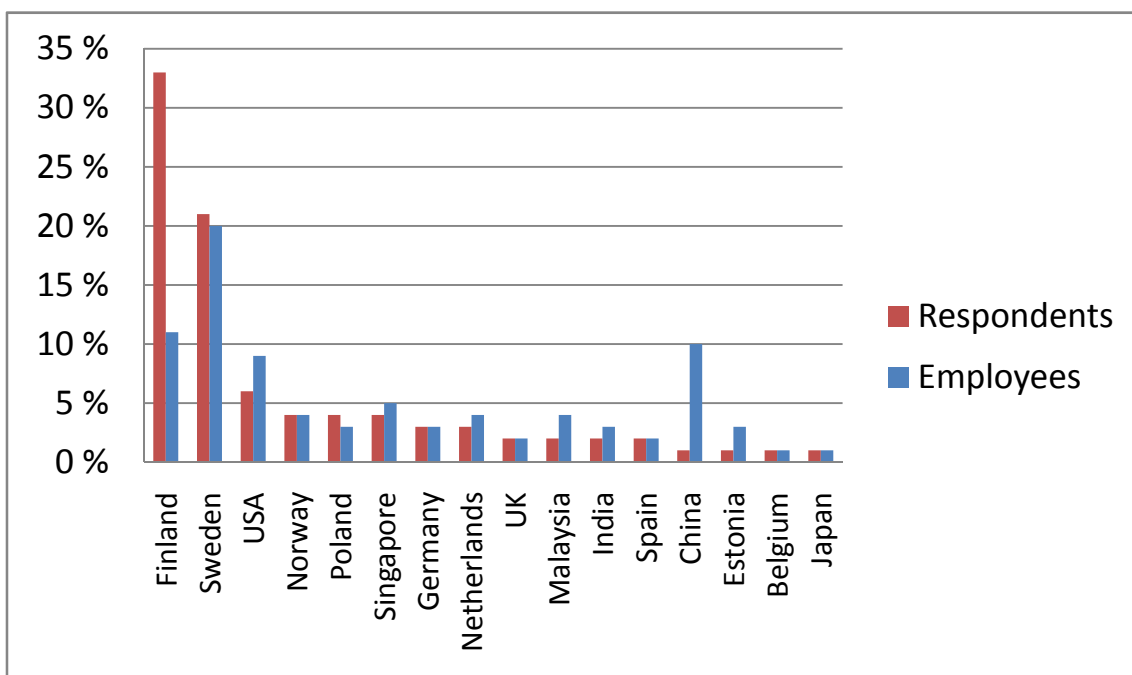
Figure 8. Home countries of respondents and employees of the case company

4.2 Use of the intranet

Figure 9 shows that more than two thirds (69%) of respondents visit the intranet at least once during every working day, one fourth once a week or more often, while only four percent say they visit the intranet two or three times per month and two percent once a month.
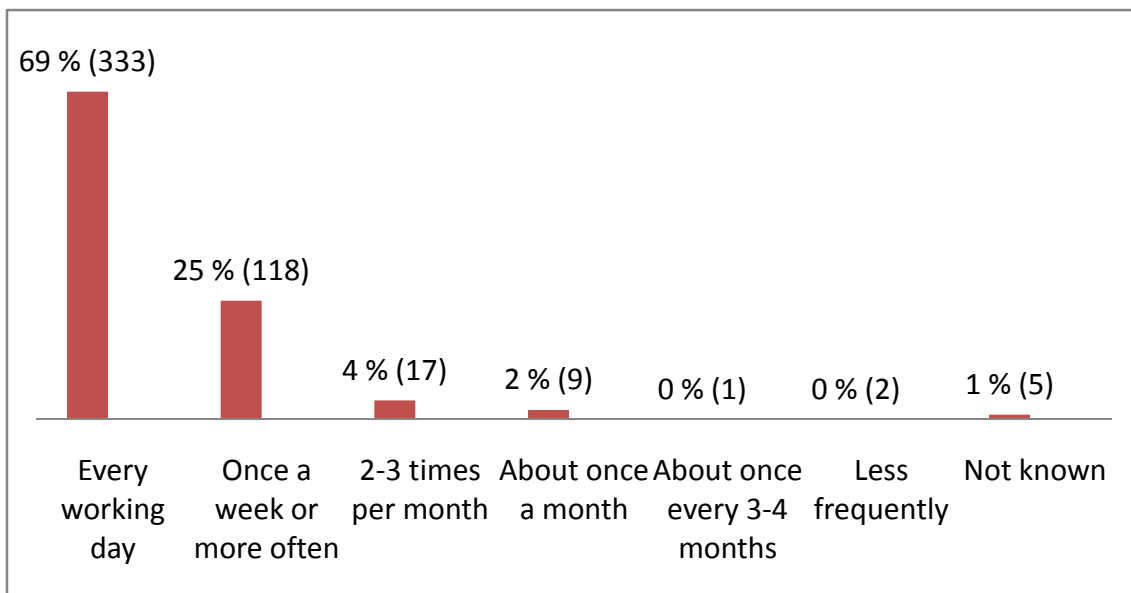
Figure 9. "How often do you visit the intranet?"

The participants were asked to report why they go to the intranet. Eight ready alternatives were given and additionally a ninth open alternative: 'Looking for specific information on the intranet – please specify'. The most popular choice was 'Reading the latest internal news' (38%), the second was 'Accessing a team site' (19%) and the third 'The intranet is set as default page' (12%). It has to be noted that at Globemec, when people open any website, they always get the global intranet first (it is the default site). So, obviously 12% of the participants did not even want to go to the global intranet but had to open it first before being able to access other websites or local intranets.

When looking at the reasons for visiting the intranet and comparing them with the individual and collective use presented in the theoretical framework of this thesis as well as in Van der Hooff's empirical model, we can conclude that most of the participants visit the intranet for individual use (86%). In other words, they look for

information, instructions or templates to be used in their daily work or read news. Collective use – i.e. contributing information to the site, participating in knowledge sharing or looking for contact information – only covers 14% of the responses.

The third question concerned the items people follow or use on the front page of the intranet. When replying to this question, respondents could choose several alternatives. The six clearly most popular choices were 'The intranet front page in general' (18% of the responses), 'Breaking news' (17%), 'Internal news' (15%), 'Appointments' (11%), 'Team sites' (10%) and 'My links' (9%).

As seen from Figure 10, there were eight alternatives to choose to reply to the question "Which of the following interactive features and internal social media would be beneficial in your daily work?"As many as 26% of the respondents said they are not interested in this kind of tools at all. The choice 'Globemec's internal social network (with functionalities similar to LinkedIn, MySpace, and Facebook)' conquered the second place getting 22% of the responses. Choices 'News commenting' and 'Discussion forum' amounted to 16% and 'Wikis' to 11%, 'Blogs' 7% and the choice 'Other' 3%.
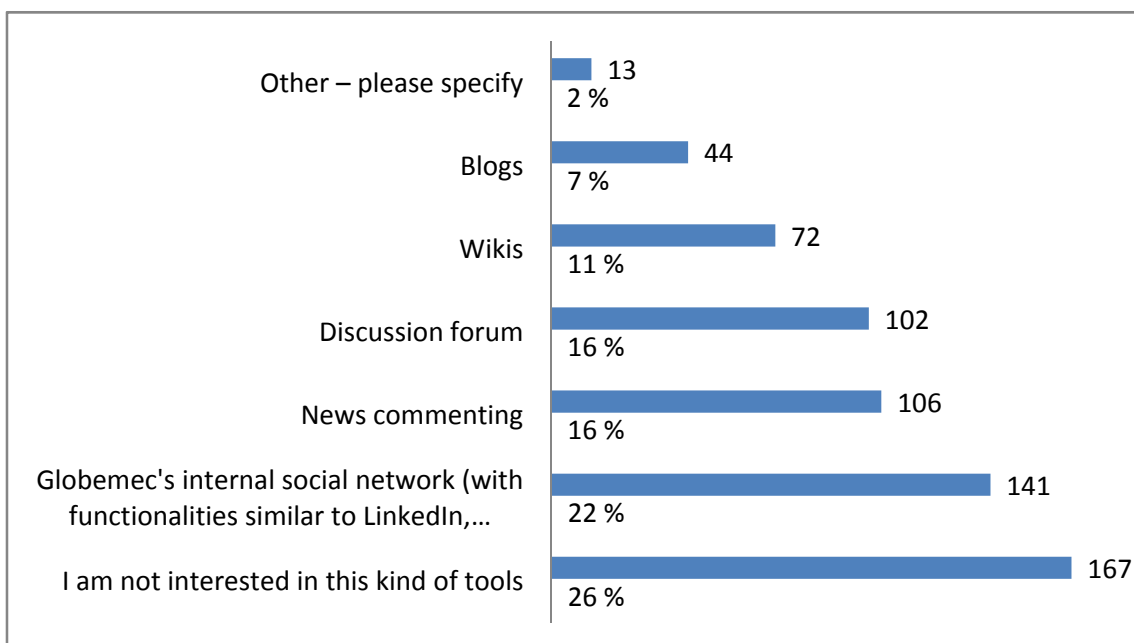

Figure 10. "Which of the following interactive features and internal social media would be beneficial in your daily work?"

The participants were asked to report their satisfaction or dissatisfaction with the following eleven qualities of the intranet: 'Page loading time', 'Visual look of the intranet', 'Content and structure', 'Readability', 'Ease of finding information', 'Clarity of top and left navigation', 'Up-to-datedness of information', 'Usefulness of information', 'Usefulness of the search function', 'Possibility to interact through the intranet' and, finally, 'The intranet as a whole'. The results are shown in Table 2 below.

Table 2. Participants' satisfaction with different qualities of the intranet.

	Dissatisfied or fairly dissatisfied	Satisfied or fairly satisfied	Neither satisfied nor dissatisfied
Page loading time	18 %	54 %	28 %
Visual look of the intranet	18 %	52 %	30 %
Content and structure	38 %	33 %	29 %
Readability	22 %	44 %	34 %
Ease of finding information	65 %	13 %	22 %
Clarity of top and left navigation	26 %	34 %	40 %
Up-to-datedness of information	16 %	52 %	32 %
Usefulness of information	12 %	55 %	33 %
Usefulness of the search function	46 %	26 %	28 %
Possibility to interact through the intranet	34 %	19 %	47 %
The intranet as a whole	26 %	38 %	36 %

As can be seen from Table 2, the amount of people dissatisfied with searching and finding information in the intranet is a clear sign of actions needed to improve that functionality in the intranet. As a matter of fact, those four qualities that got most dissatisfied/rather dissatisfied grades from respondents – 'Ease of finding information', 'Usefulness of the search function', 'Content and structure' and 'Clarity of top and left navigation' – all indicate that the intranet cannot be very popular in case it is difficult to use or information is not found in the first place.

From Van der Hooff's model (presented on page 27), Stenmark's model (page 29) and the theoretical framework of the present thesis (page 35), it can be concluded that perceived ease of use – on which finding information affects to a great extent – has a positive influence on communality and, in turn, to the information perspective of the intranet. Perceived ease of use in this connection means how easy for employees it is to use their intranet.

The situation is, however, not hopeless deduced from the opinions respondents gave regarding 'Usefulness of information', 'Page loading time', 'Visual look of the intranet', 'Up-to-datedness of information', and 'Readability'. From 44% to 55% of the respondents informed that they were satisfied with these qualities. Almost half of the participants replied 'neither satisfied nor dissatisfied' to the question regarding the satisfaction with the possibility to interact through the intranet. This result has a clear connection to the participants' disinterest towards social tools through the intranet (see Figure 10 on page 43).

Finally, 38% of the participants were satisfied or rather satisfied with 'the intranet as a whole' while 26% said they were dissatisfied or rather dissatisfied and the rest 36% were neither satisfied nor dissatisfied.

4.3 Finding information

This section in the survey questionnaire explored opinions of finding formation in the intranet. The first question read: "Do you find the information you are looking for on the intranet?" As few as 3% replied 'always', half of the respondents (51%) replied 'most of the times', 39% 'sometimes' and 7% 'hardly ever'. Here we can see a clear correlation between the result of this question and the one presented in the previous section where 65% of the respondents said they were dissatisfied or rather dissatisfied with the ease of finding information.

To the question "Which of the following ways do you use most for finding information on the intranet?" four alternatives were given: 1) search function, 2) top and left navigation, 3) browsing through various sections, and 4) the intranet site map. The first alternative, search function, was used most – for 36% of the respondents that is the main way to find information. This is an unexpected result because in the previous section we learnt that as many as 46% of the respondents were dissatisfied or rather dissatisfied with the usefulness of the search function. However, it was the most popular way to find information on the intranet.

Next, the participants were asked to choose one alternative ('most of the times', 'sometimes', 'hardly ever', or 'I do not use the search function') to this question: "Do

you find what you are searching via the search function?" Almost half of the participants replied 'sometimes' (48%), one fourth 'hardly ever', and 22% 'most of the times'. Those 5% who replied that they do not use the search function were asked to give the reason why. Approximately half of these people wrote that they either did not know that it existed, or that they do not see it necessary. The other half seemed to have become frustrated with it; they had tried but found it poor in terms of giving too many links, or insufficient or non-matching results. Here again, we can see the connection between the results above with finding information and usefulness of the search function.

The same question about finding information through top and left navigation of the intranet gave most replies to the alternative 'sometimes' (55%), while 26% said they managed 'most of the times', and 11% 'hardly ever'. Eight percent replied they do not use the top or left navigation for searching information on the intranet.

The Phonebook is a separate internal contact directory found in the intranet. It is a tool for employees to find contact information of their colleagues and offices around the globe. The survey revealed that the respondents found what they were searching via Phonebook 'most of the times' (64% of the replies), 'sometimes' (24%), and 'hardly ever' (5%).

4.4 Other feedback

In the section 'Other feedback' all four questions were open-ended questions:

1. What do you find most useful on the intranet?
2. What do you think is unnecessary?
3. What is good about the intranet?
4. What should be improved on the intranet?
5. Do you have any other comments you would like to send to the intranet development team?

The amounts of respondents and items given in each of these questions are found in Table 3 below. Some of the respondents reported several items or suggestions – that is

why the numbers of given items are higher than the numbers of respondents. For Globemec, it is positive to find that the amount of useful and good items exceeds the number of unnecessary items. Nevertheless, the big amount of suggestions on how to improve the intranet is a clear sign of the intranet not serving its users in the best possible way yet. On the other hand, Globemec's intranet development team is definitely satisfied with the great number of ideas that employees gave to improve the quality and functionality of the intranet. Furthermore, activity giving other comments, too, can be considered positive in terms of showing the employees' will to assist the development team in their work to further develop the intranet.

Table 3. Summary of answers received to "Other feedback".

	Amount of respondents	Amount of items given
Most useful	303	470
Unnecessary	101	146
Good	272	375
To be improved	309	465
Other comments	147	153

The opinion of 41% of the respondents was that the most useful item on the intranet was 'News' (including news in general, breaking news, internal news and appointment news) getting, second best was 'Phonebook' (34%) and third 'Team sites' (20%). As unnecessary items in the intranet were mentioned 'Out-of-date or old material or information' by eight per cent of the participants, 'Calendar' (6%), 'Information overload' (6%), 'Phonebook' (4%) 'Local appointments in the global front page' (4%), and 'Social media' (3%). As much as 41% of the respondents reported that nothing is unnecessary, which can be seen as a sign of the importance of the intranet.

As can be seen from Figure 11, one third of the respondents (99) valued best the fact that there is 'A lot of useful information in one place'. 'One common information channel/site for the whole company' was mentioned by 10% (29) of the respondents, 'News' were considered to be good by nine per cent (25), 'Sharing of information' by

seven per cent (22). 'Easiness' (also formulated as 'Easy access' or 'Easy to use or navigate') got 6% (20), 'Phonebook' and 'Team sites' both got 5% of the responses (14).
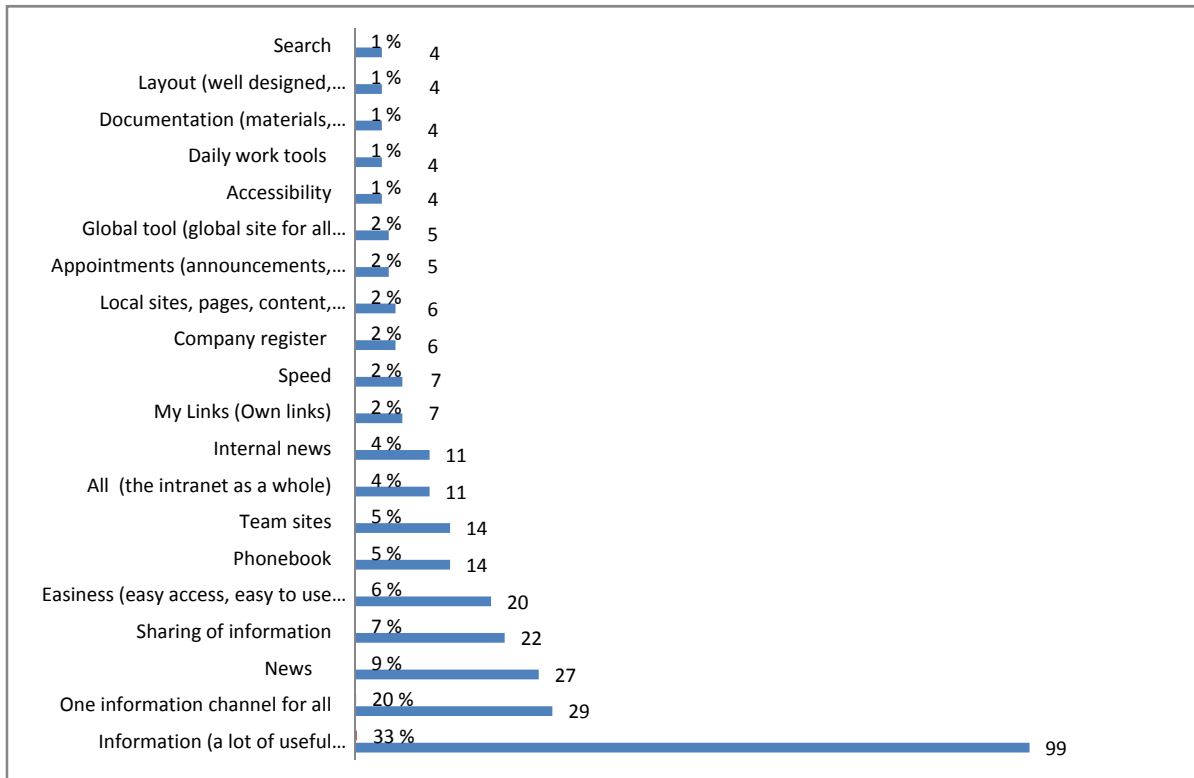
Figure 11. "What is good about the intranet?"

The open-ended question, "What should be improved on the intranet?" gathered, as mentioned earlier, as many as 465 improvement areas. Several of them were mentioned by a few participants, so altogether there were over 250 issues which the researcher divided into 20 groups according to their subject matters. The major needs for improvement seem to be in the 'The intranet content' – 11% mentioned that – followed by 'Layout', 'Structure' or and 'Appearance' (8%) and 'Phonebook' (6%),'Training' (6%), 'News' (6%), 'Search / find' (6%), 'Localisation / local sites' (6%), 'Collaboration' (5%) and 'Links' (4%). Eleven participants (4%) wanted improvement in the control, responsibilities and contact of the intranet so that, for example, each page would have a nominated owner whom one could contact in case of any problems or questions about that page. See the replies in Figure 12 below.
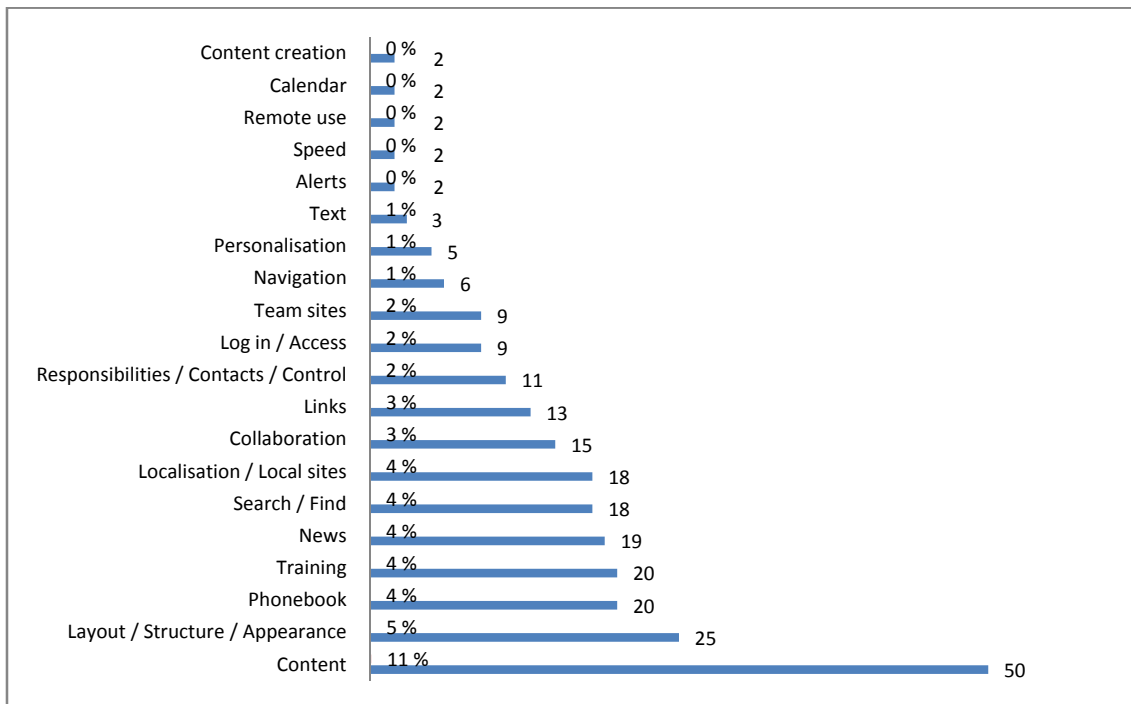
Figure 12. "What should be improved on the intranet?"

When analysing the last open question, the 'Good' and 'Unnecessary' things' comments as well as improvement comments were moved to their correct places. Finally, there were 47 general comments left. Most of them (32) were positive and encouraging greetings to the intranet team, such as the following:

- *I was a bit sceptical about it from the beginning but this brings value and modernity to us in the company.*
- *A very good channel for every day work, the more information we have there, the more use it will create in the company.*
- *I like the overall efforts being made with the intranet and how the team continues to work to find a common electronic ground where all facets of the company can come together. Thanks.*
- *The site as a whole looks good... Very good job so far.*

A few participants wrote about lack of time or interest, e.g.:

- *I really don't go on the intranet often. My job keeps me busy all the time and I don't have time to really investigate the intranet. I'm sure it would be very useful, but I rarely have any free time to look into it and learn how to navigate.*
- *I do not have the time or the needs to use the intranet.*

Furthermore, there were a couple of critical comments on using the intranet as the main (or only) internal communications channel:

- *Please, believe that people are not interested in getting info from any pages like this; it should be told direct from boss to the subordinates.*
- *The intranet is the only way of following change within the organisation. It appears to be used to make major announcements which affect employee's roles and job security. ... If we consider the most recent restructure announcements, without the intranet most employees would not know because there have been no local management announcements. ... Using the intranet in such a way increases employee unsettlement and adds to the insecurity ...*

Finally, a few people gave general comments in this part, too, e.g.:

- *The intranet is actually quite clear to me as I have been involved since the beginning and have created and update pieces in the intranet. BUT most people who are normal users find the intranet a mess. Internal clarity is part of strategy; let it be part of the intranet, too.*
- *Make it easier to use!*
- *KEEP IT SIMPLE (less is more)*

4.5 Summary of findings

When thinking of the role of the intranet in Globemec, the findings indicate that the intranet is mainly used as an information distribution channel at the moment. Employees appreciate having one common place where they can find all work-related instructions, documents, templates and tools that ease their everyday work. Furthermore, they are pleased to find there details of other offices and colleagues so that they can quickly contact each other. People are also keen on reading in the intranet what happens

both within the company (internal news, appointments and organisational changes) and outside it (press and stock exchange releases). Nevertheless, the survey findings clearly indicate that employees are expecting to find more local news (e.g. news of their own units and colleagues and events in their own country) in the intranet. Additionally, they would like to learn about products and services of other units, and research and development issues in the field, and read news about markets and competitors.

Concerning the knowledge sharing role of the intranet, we can conclude from the findings of this study that neither the company nor the personnel are yet ready for using their intranet for that purpose. The company does not provide any social media type of solutions in its intranet at the moment and, as found in the survey, a lot of employees do not seem to be very interested in having those functions there either.

Globemec aims at developing the global intranet into the preferred internal communications tool. The intranet was launched two years ago and during these years it has already gained a strong foothold, judging from the findings of the survey where 69% of the participants say they visit the intranet at least once during every working day. Another 25% use the intranet services at least once a week. The most important reason why people go to the intranet seems to be reading the latest news.

Internal social media is one of the subjects the development team of Globemec's intranet has already started preparations for. Even though every fourth survey participant informed that they were not interested in tools like this, it is self evident that the company will have to follow general trends and benchmark other multinationals that have positive experiences of social media in their communication in terms of activating employees to share knowledge and communicate more actively with each other. The survey findings report that those who are interested in these tools are of the opinion that Globemec's internal social network (22%), news commenting tool (16%) and a discussion forum (16%) would be beneficial in their daily work.

The issues creating most dissatisfaction with the intranet seem to be connected with the difficulties in finding information and the poor search function. The company phonebook is a critical tool to help people find each other's contact details, thus getting

them together to communicate and share information and knowledge. The starting point of collaborative cooperation between employees and units is to find each other's details. Thus, 64% of the respondents reporting that they 'most of the times' find in the phonebook what they are looking for is not a satisfactory result. Regardless of this, people find the phonebook very useful: 26% of the respondents grade it as 'most useful'. It is only news that is graded higher: 31% respondents say that is the most useful element in the whole intranet. The complicated structure and unclear top and left navigation seem to increase difficulties in surfing in the intranet and finding what one is looking for.

The results of the survey show that most of the respondents value the global intranet and its content, especially the possibility to follow the latest news and to find contact details of colleagues. What seems to be the most annoying issue is the fact that it is often difficult to find what one is looking for. The reason for this does not seem to be that the information would not be there but rather the fact that the search function is not technically satisfactory. Additionally, the open comments reported that people are not very familiar with the system and would need training and guidance. Part of the content seems to be out-of-date, and all links do not work, which causes inconvenience and reluctance to use the intranet actively.

The survey indicates that team sites are a frequently used forum to publish and share information meant for certain groups of people. They help employees in their work and decrease the need to send heavy e-mail attachments to other team members. As the company's target is to unify all personnel also in terms of having one common place for all information, it seems to have succeeded very well already during these two first years of the global intranet. Namely, in the open questions' section, more than one fourth of the respondents reported how good it is to find a lot of useful information in one place and have one common site for the whole company.

In the open comments section, several respondents express their worry about not being able to get properly acquainted with the intranet due to lack of time. Wishes for quick help in a form of, for example, e-training, tutorials or videos, are passed to the company. All in all, the amount of positive feedback in the open comments exceeds the negative

statements. Globemec's intranet development team gets several thank-you messages and encouraging wishes to "keep up the good work" in the open comments. One example of them is the following quotation:

> *"The intranet is a very important tool and it is great that you will develop it further!"*

5   RECOMMENDATIONS

Based on the literature and earlier research conducted in other multinationals, and on the survey carried out at Globemec, recommendations on how to develop the global intranet will be given in this section.

The results of this study are supported by the survey of Jokinen (2010, p. 17) who explored internal communication channels within one unit in Globemec. Both the results of her survey and the results of this thesis research clearly indicate that the use of the intranet as a common internal communication tool can and ought to be improved. As suggested by Jokinen (2010), this can only happen by bringing the contents and usability to a level that corresponds to people's requirements. The survey findings clearly indicated the need to promote professional knowledge exchange through the intranet in terms of, for instance, forums for exchange of technical, customer and sales information. One of the respondents gave a good idea of adding more online training tools onto the intranet (e.g. pricing excellence with evaluation tool), which could also enhance knowledge sharing through the internet.

Dead links seem to be one factor to decrease the motivation to actively use the intranets. Globemec is not an exception in this respect. The links leading nowhere should be removed. Furthermore, links should lead the user directly to the document they look for and not to a folder with a long list of documents.

In the survey, critical feedback on page loading time was given especially by Americans. This is obviously a technical matter to be taken care of by the local information technology experts. Readability of texts and titles got a few critical voices. It seems that font sizes are too small and colours too weak in some places. Furthermore, in news articles, titles are sometimes placed too tightly with the body text which hinders reading.

In the following six sections, more detailed recommendations are given in the following issues that should be improved:

- Information search

- Employees' training

- Content and structure

- Use of interactive features and social media

- Phonebook

- Personalisation

5.1 Finding information and search function

The survey results show that 65% of the respondents are dissatisfied or fairly dissatisfied with finding information in general and that 7% hardly ever and 39% sometimes find information they are looking for. Furthermore, 46% are dissatisfied or fairly dissatisfied with the usefulness of the search function, and 25% hardly ever and 48% sometimes find what they are searching through the search function. Another 5% do not use the search function due to too many returns, insufficient results, the fact that it does not work - to mention a few reasons.

These results are very much in line with the results of a survey conducted in May 2010 in one unit within Globemec by Jokinen (2010). Her question was "Have you found what you look for?" and the three alternatives, 'No', 'Yes' and 'Sometimes' got 17%, 29% and 54% of the answers respectively.

As earlier mentioned, frustration in failing to find what people are looking for, ends up in inactivating the use of the search function and the intranet in general. To avoid this, the following suggestions are given to Globemec:

- Results received from search should be listed in relevant order (freshest first).

- Use of keywords and free text search should be improved in the search function.

- Separate searching should be created for finding information in team sites.

- Help function could be one solution to ease finding information.

5.2 Training of users, content producers and contributors

The survey at Globemec and research of others has revealed that it is not self-evident for everybody to start using new technology and, as in this case, the programme

SharePoint. In addition to the technology itself, there are several other issues to be used in the intranet in order to get most out of it in everybody's daily work. Hence, it is necessary to consider the following:

- Guidelines and instructions should be given in usage and management of the intranet, for example, in an intranet user handbook, tutorials, live meetings or short training videos.

- Online "SharePoint for Dummies" could be acquired for every user.

- Managing authorisations of the intranet could be made easier.

- For content producers, the system how to create and update information should be revised (e.g. uploading pictures is difficult at the moment).

- Up-to-date, functional test environment is needed.

5.3 Structure and content

More than one third (38%) of the respondents were dissatisfied or fairly dissatisfied with the content and structure of the intranet. When analysing the satisfaction with this issue, it was found that the question combining structure and content to be evaluated together was not a good baseline. Namely, these two features are so different that they should both have had a question of their own. This was witnessed by the answers received from the open-ended questions where the unclear structure was reported to create problems in finding what one is looking for in the intranet, while content as such did not play an important role in finding information but had an impact on the fascination of the site.

To explicate the structure, these proposals are given:

- Visual effects offer one possibility to help clarify the structure and also get the visual look more attractive.

- There is a lot of empty space in the upper part of the screen, at least when looking at a laptop which causes unnecessary scrolling. A redesign of this part is recommended.

- Under each function, more sections could be created to get a clearer structure. At the moment, there are functions with a long list of different items, which means a lot of scrolling when searching for a certain item.

- A site map similar to Microsoft Explorer could be created. This would allow users to see the complete intranet structure immediately and thus one could find the necessary information without delay.

In order to improve the contents, the following actions are suggested:

- Local news should be published only in local sites, and thus preserve the global site for information that is of global interest.

- Each page must have an owner to make sure all its contents are up-to-date, well structured and easily found and that all links work. The name and contact information of this person are to be given on this page thus letting users ask for more information or give feedback.

- All units should be given an equal space in the global intranet. Information of all company products and services should be added and links to them created.

- Out-of-date material and dead links should be removed.

- Organisation charts should be kept up-to-date all the time and they should include all levels and all employees, not only managers

- Extranet is suggested to be designed in order to facilitate the collaboration with agents, dealers, consultants, subcontractors and other partners with whom the company cooperates. A database of these stakeholders should be available on the intranet.

- One section should be created where all papers and presentations that are published or presented by Globemec people in different occasions, like conferences and seminars, would be saved.

- A clickable world map could be placed on the front page where everybody could by one click go on to local information sites.

For 38% of the respondents, the main reason to go to the intranet was to read the latest internal news. Thus, it would be worthwhile to pay more attention to the layouts and texts of the news, why the following actions are recommended:

- Most of the articles are too long, giving too much background information and "sweet nothings" as well as "management talking" instead of real news. Texts should be shortened.

- Case stories about products, services and people are to be published to enable teams in different countries have an insight of what their fellow mates are doing.

- More success stories and business news about markets, competitors etc. should be published.

5.4 Interactive features and social media

The study shows that 34% of the respondents are dissatisfied or fairly dissatisfied with the possibility to interact through the intranet. On the other hand, 34% of the survey participants chose the alternative 'I am not interested in this kind of tools' in the question that read "Which of the following interactive features and internal social media would be beneficial in your daily work?" Nevertheless, the rest 66% reported that they were interested in interactive media. The alternative 'Globemec internal social network with functionalities similar to LinkedIn, MySpace and Facebook' received a "yes" reply from 141 respondents (22%). When thinking of the advantages that could be gained through this network we can mention the following:

- It would improve overall interaction and getting acquainted with each other over the boarders.

- It would offer a forum for knowledge sharing between different units and work teams (not only within the teams as we can do through team sites already).

- Adding comments or tags would improve creation of new ideas, finding best practices and founding new communities of practices.

The alternative 'News commenting' was supported by 16% of the respondents. Here we can add, as suggested by one of the respondents, that commenting on everything on the

intranet could be allowed, not only commenting on News. 'Discussion forums' was also supported by 16% of the respondents. This idea is very welcome provided that there is an "owner" or "controller" for each forum in order to make sure no insulting, confidential or otherwise critical material is published in the forum. The alternative 'Wikis' was welcomed by 11% of the respondents. There is already a Globemec glossary in the intranet but it would be worthwhile to consider broadening it to become a corporate Wikipedia with a dictionary, all terminology and abbreviations that are widely used within the company. Within Widipedia, people could create their own sites for information sharing. 'Blogs' got "green light" from 7% of the respondents. What these people especially seem to be looking for is a blog of certain managers or specialists.

Apart these given alternatives, respondents were given the possibility to suggest other internal media that they consider beneficial in their daily work. YouTube got three supporters with reasoning that Globemec has a lot of product videos that could be placed into the "internal YouTube". A 'knowledge bank' was one of the suggestions (which could be beneficial for sharing technical solutions and ideas) and 'Interactive Q & A pages' another that would also be an interesting forum for different support needs of employees.

Using intranets as learning forums seems to be an increasing phenomenon as reported in the earlier research. At Globemec, e-learning as such has not been executed through the intranet yet. Today, however, team sites are well utilised in terms of using them as platforms of all material that is shared among a project group or a working team. It is worthwhile for the company to activate e-learning through the intranet placing videos and other self-access material there. Furthermore, discussion forums for certain professional groups (such as engineers who develop new equipment or solve technical problems occurred in old equipment) would be beneficial for knowledge sharing, exchanging of experiences and learning from each other.

5.5 Phonebook

As argued by several researchers (see Chapter 2), the basis for efficient communication, cooperation, collaboration and knowledge sharing is the fact how easily employees and

managers are able to be in contact with their colleagues. This fact is extremely critical in multinationals located in different geographic locations and different time zones. The best tool for finding colleagues is an internal contact directory. At Globemec, its name is Phonebook. The survey results show that 5% hardly ever and 24% sometimes find what they are searching via Phonebook. Another 7% do not use Phonebook at all.

The following actions are suggested in order to improve the Phonebook and activate its use:

- More information of Globemec's employees should be there: responsibilities, organisation, manager relations, etc.

- Everybody's details ought to be updated and missing photos added. Office information should be updated whenever any changes occur (also Google map details). At the moment, each employee is responsible for updating his or her details in the Phonebook. The intranet development team should consider giving this responsibility to either human resource or communication practitioners of each unit. That way it would be made sure that details are kept up-to-date constantly.

- When developing the Phonebook, the internal contact directory of one of the business units could be used as basis utilising its functions, among other things:
  - search of employees in certain offices and search by job titles
  - abbreviations of employees (three-letter abbreviations are used in certain information systems within the company)
  - opening hours and holidays of each office
  - possibility to upload Phonebook to mobile phones to find colleagues when, for example, travelling

- Link to Outlook contacts (or to Twitter or Facebook) could be an option.

5.6 Personalisation

Personalisation of the intranet is worth considering because, based on the survey findings, people do not seem to have time or interest in reading through all news and all

material but would prefer finding quickly the specific information they need in their work. In particular, a clear division between global and local news ought to be done and, accordingly, publish news of local importance and interest only in the local sites. Alerts could be used to inform employees through their e-mail or mobile phones when news or material of interest is placed into the intranet. This is technically possible when using personalisation.

At the time of the survey, a new local intranet had been opened only in four countries: Finland, Sweden, China and the United States. Additionally, a few units still had their old local intranets up and running, i.e. those sites that they used to have prior to 2005 when several companies were incorporated to form the stocklisted case company Globemec. The company's plan is to open a local site in all countries where they have own personnel. When that is done, it should be considered whether it is possible to personalise the intranet using the unit and the home country of the employees as a baseline. As clearly shown by Van der Hooff's research (see Section 2.4), personalisation has a positive impact on the use of the intranet.

6   CONCLUSIONS

This chapter will connect the findings to the research objectives, arguments, questions and the theoretical framework presented for this thesis. Furthermore, this chapter will summarize the main points of the literature review from Chapter 2 and the empirical findings from Chapter 4 as well as sum up the main recommendations given in Chapter 5. Additionally, the limitations of the study will be discussed. Chapter 6 will be concluded by presenting suggestions for future research.

6.1 Research summary

The starting point of the present survey was a concrete need at Globemec – to decide how to develop the global company intranet so that it would become the number one in internal communications for employees worldwide. A survey among Globemec's intranet users was carried out in November 2010. The survey questionnaire consisted of 19 multiple-choice and five open-ended questions. It was published on Globemec's global intranet. The number of respondents was 485.

Three research questions raised in this thesis were the following:

1. What are the roles of intranets in multinationals in general and in the case company in particular?
2. How could the intranet be managed and so that most of the personnel would become active users and contributors of the intranet?
3. How could new technology enhance multidirectional communication and knowledge sharing through the intranet in multinationals and, specifically, in the case company?

The aim of the first research question was to find out which roles intranets play in multinationals in their internal communications. The presumption was that there are several roles, such as a top-down information channel, a multidirectional communication forum, a knowledge sharing tool, an information archive, and a discussion forum. The second question aimed at finding ways to activate the use of intranet. Finally, the third question wanted to dig into the world of modern technology

to get ideas of how modern technological features may enhance communication and knowledge sharing through intranets.

In the literature review, the main issues handled a) intranets' roles, advantages and disadvantages in comparison with other communication channels, b) centralisation and decentralisation of intranets, c) information technology and social media that enhance internal communication through intranet, and d) knowledge creation, storage, sharing and use through intranets. The central theories found in previous research were Van der Hooff's (2006) *Empirical model* (personalisation and intranet) and Stenmark's (2002) *Three perspectives on the intranet* (based on three Web technology features: openness, linking and networking).

The theoretical framework for this thesis (see Section 2.6) was formed using these two theories as a basis. The framework emphasises the impact of personalisation, perceived ease of use, perceived usefulness, individual use, collective use, connectivity, and communality on the three perspectives of the intranet – information, awareness and communication. The theoretical framework argued that a well-functioning intranet is a portal that serves the whole company as a one-stop shop in internal communications and knowledge sharing.

6.2 Main findings

The main findings in connection with each of the above research questions are presented as follows. In Subsection 6.2.1, the intranet's roles will be discussed, Subsection 6.2.2 will focus on the ways how intranet users can be activated, and Subsection 6.2.3 will discuss information technology issues. Finally, the Subsection 6.2.4 will conclude the main findings section by summarising all findings and reviewing them against the theoretical framework.

6.2.1 Intranet's roles

According to the findings of Lehmuskallio (2006), Cutlip at al. (2006), and Sinickas (2010), as presented in Section 2.1, the intranet has not been able to take over the whole scene in internal communications, i.e. it has not replaced other tools such as printed

publications and supervisors but has mainly become a complementary channel in internal communications in multinationals. Lehmuskallio (2006) and McConnell (2007) argue, however, that an intranet should be the most important source of internal company information and the first place to look for information. Furthermore, it should increase productivity and facilitate collaboration and knowledge sharing. Additionally, Quirke (2008) argues that the intranet should be seen as a tool to strengthen business and provide communication means for business management, as a source for information and, finally, as a daily messaging channel.

At Globemec, the ultimate goal of the Corporate Communications is to constantly develop the intranet in such a way that it will become the main internal communications tool for the whole personnel. Accordingly, other communication channels – face-to-face communication, printed publications, e-mail and online meetings – would remain as supporting tools to the intranet.

The intranet survey at Globemec showed that the main reasons to visit the intranet were to find information for one's everyday work and to read news, which both refer to the information perspective of an intranet. The third reason in importance was visiting team sites which is an element belonging to both the awareness and communication perspectives. The possibility to interact through the company intranet – i.e. the collaboration role – is welcomed by Globemec's employees even if 26% of those who took part in the survey are not interested in social media. Personalising the intranet would obviously be an action to strengthen the intranet's role as the main internal communications channel that also offers employees a collaboration and knowledge sharing forum.

In Van der Hooff's empirical model (presented in Section 2.4), we can find several intranet's roles. Individual use means consulting information and collective use means sharing information through the intranet. Communality includes both storing information and accessing to information while connectivity presents the collaboration role because it stands for the possibility to reach others through the intranet.

6.2.2 Activation of intranet users

As stated in Chapter 2, outdated material and links leading nowhere are features that discourage the use of the intranet. Globemec would obviously be able to get rid of the out-of-date material and dead-end links, among other things, by creating guidelines that dictate who develops which parts of the intranet (is it the information technology experts or others), and who takes care of standards and policies concerning the intranet. Furthermore, the company should consider investing on ongoing support services for both users and contributors.

At Globemec, difficulties in surfing in the global intranet and finding relevant information seem to discourage employees from visiting the intranet regularly. The problems in finding what they are looking for stem obviously at least partly from a poor search function, unclear structure and insufficient training of users. Part of the difficulties are caused by the fact that intranet pages do not have dedicated "site owners" responsible for keeping the contents and links up-to-date.

In case employees are of the opinion that the information on this intranet is not relevant to them, it is self-evident that something has to be done. This message is interpreted from the survey, too: 38% of the respondents are either dissatisfied or rather dissatisfied with the content and structure of the intranet. As many as 11% of the respondents especially mentioned content when asked about things to be improved but they did not clarify further what they meant exactly. Some of them clearly said there is too much stuff on the intranet that is not relevant to them. In the literature review it was emphasised that relevant information put onto the intranet at regular intervals is a strong motivation to visit the intranet.

As was discussed in Chapter 2, companies should invest in the training of their employees irrespective of their position in the company and their proficiency in computer or online information use. Training in how to search information and navigate within the intranet is clearly one issue that people look forward to at Globemec, too. Furthermore, looking for information would become easier in case the intranet structure

would be rebuilt, based on different units or geographic areas where the company is located.

As shown by Van der Hooff and presented in Section 2.4, personalisation is also one activator, a key to individual use, collective use and perceived usefulness of the intranet (see also Figure 5 on page 27). Additionally, as was shown in the theoretical framework, personalisation has a positive impact on all three perspectives of the intranet: information, awareness and communication.

6.2.3 Information technology enhancing collaboration

As was discussed in Section 2.4, Detlor (2003) suggests that to support search, browsing and exploring, intranets should provide features and functions such as 'frequently asked questions', 'best practices', 'editorials', 'commentaries' and 'discussion areas' thus connecting people together and encouraging the sharing of knowledge and new ideas. The results of the present study support Detlor's conclusions: respondents were in favour of discussion forums and possibilities to comment all contents, not only the flow of news as they can do now.

Personalisation offers an opportunity to adapt an intranet to a user's needs which could help in overcoming problems like information overflow as well as poor categorisation and organisation of information, as was discussed in Section 2.4. Personalisation would definitely help in avoiding some of the difficulties Globemec's employees have in navigating on the intranet and not finding the necessary information. The launching of local intranets can be considered as part of the personalisation process since local and global news and appointments can be published in different sites thus diminishing people's need to go through all published material in case they are looking for certain local news.

At Globemec, intranet users could be activated by offering social media features and functions in the intranet, because wikis and blogs allow people to create, edit, approve, publish and manage content in one place, without any specific training. By establishing new interactive features on the intranet, employees are encouraged to give feedback, take part in discussions, send online thank-you cards and sell or buy on an online

marketplace, as was already discussed in Section 2.5. Globemec has created an online marketplace on the global intranet. For the time being, very few deals have been made there though. One reason might be that it is difficult to arrange the logistics and bureaucracy if cars, pieces of furniture or other large items are sold from one country to another. Thus, it would be worthwhile to create such a marketplace in all local sites once they are established in all countries.

In the modern "mobile" world it should not be a big problem to get people's lives easier by giving them all possible technical tools to reach each other, communicate and share knowledge. One example is Globemec's phonebook which should be possible to upload into mobile phones thus making sure that employees are able to contact their colleagues anywhere any time. The other crucial issue for the future is definitively the implementation of Web functionalities in the intranet thus enhancing searching of information, collaborating and sharing knowledge.

6.2.4 Summary of main findings

Combining the features from the theoretical framework presented earlier in Section 2.6 (Figure 7) and the existing and recommendable elements of its intranet, Globemec could raise its global intranet to be the internal communications, collaboration and knowledge sharing channel number one – a one-stop shop – as shown below in Figure 13.

As was already explained in Section 2.6, the inner part of the figure, i.e. the three circles, indicates the three perspectives of the intranet presented by Stenmark: information, awareness and communication. In each of these perspectives as well as in the overlapping areas we can find a collection of elements either existing in Globemec's present intranet or suggested to be added there in the next development phase. Elements from 'Instructions' to 'News' in the blue circle of Figure 13 are included in the information perspective. The findings from the study referring to this perspective clearly indicate weaknesses in the contents of Globemec's intranet and in the search and navigation functionalities. The elements from 'Internal contact directory' to 'Alerts' are seen as part of the awareness perspective (see the red circle in Figure 13). The survey revealed that Globemec's employees greatly value their phonebook but that they are

disappointed in the fact that it does not give contain all necessary details of colleagues and offices and that it is not kept up-to-date. Another critical issue in the awareness perspective at Globemec is that all intranet pages do not have nominated owners who would both keep the contents and links up-to-date and reply to questions raised by intranet users. The elements from 'Blogs' to 'Documentation of experiences' have their place in the communication perspective (the yellow circle in Figure 13). At Globemec, this perspective is still in its infancy. The open comments gathered thought the survey give plenty of suggestions of how to enhance communication, collaboration and knowledge sharing by utilising Web technology and social media features, for example, creating blogs, wikis, and discussion forums in the intranet.

Apart these three groups of elements that have been categorised here into the information, awareness and communication perspectives, another three element groups are formed in the overlapping areas of the three perspectives. These elements have all features from two perspectives: the elements from 'Links' to 'Help function' have features from information and awareness, the elements from 'Team sites to 'Webcasts' have features from awareness and communication, and elements from 'Forms' to 'Knowledge centres' have features from information and communication. Hence, they cannot be placed into one perspective only but have found a proper place in these overlapping areas between two perspectives.

When looking at the "boxes" in the upper corners of Figure 13 and below the "three circles", it can be seen that intranet personalisation plays a positive role in activating the use of intranet in several ways as already discussed earlier. At Globemec, localisation would be a good start towards a more personalised intranet. As reported in the survey, employees are not satisfied find having both local and global news mixed together on the main page of the intranet. Furthermore, they would rather get a quick access to those documents and material they need in their daily work without having to plough through a massive archive of information. This is where intranet personalisation would certainly offer a solution.

Perceived ease of use, individual use and communality have an impact on the information perspective of the intranet. Perceived ease of use is improved by offering a

well-functioning search and a clear structure and layout in the intranet so that people quickly find what they are looking for. At Globemec, finding information seems to be one of the critical issues in terms of activating the employees' regular use of their intranet. As found in the study, individual use is already at an active level thanks to a lot of information available in the global intranet. The characteristics of communality have already been fulfilled in the intranet because employees report that they use the intranet in their daily work as an additional information channel in the work place.

Perceived usefulness and connectivity are features that influence the awareness perspective of the intranet. At Globemec, the team sites and the internal contact directory (Phonebook) are in active use and improving their quality will certainly strengthen the awareness perspective in the future. Connectivity at Globemec refers to elements such as organisation charts and job descriptions of colleagues which would help employees contact those who are relevant for their work. Accordingly, all actions related to improvements in finding the relevant colleagues are welcomed to Globemec.

Finally, collective use plays an important role in the communication perspective and especially in the work of content producers and site owners who publish information and news, maintain intranet pages and keep it up-to-date. In order for them to smoothly carry out their tasks, Globemec should provide them with the necessary resources and time. For the time being, the technical features of the intranet do not seem to support their work as well as it ought to.

To conclude, Figure 13 indicates that it is possible to develop Globemec's intranet in such a way that it serves its global personnel in all work places as a one-stop shop in their information seeking, communicating and knowledge sharing needs for their everyday work. Nevertheless, to reach that stage, it is presumed that all parts of the model are paid attention to and that all pieces are fallen in their places like in a puzzle.

Figure 13. "One-stop shop intranet" for Globemec.

6.3 Limitations of the study

This section will review a few limitations of the present thesis by approaching the study from a critical perspective. The limitations should be kept in mind when interpreting the findings of this study but they do not diminish the trustworthiness of this study. As this study focuses on intranets in multinationals, it would be possible to explore a larger scope than done in this research because there are several angles that could be taken. Nevertheless, the scope of this thesis needed to be narrowed down into one specific area, which is why it was chosen to focus mainly on the intranet users' perspective.

Accordingly, one limitation is that this was a case study based on one multinational, which means that the results may not apply to other organisations. This limits the possibility to generalise the results, but possible similar trends in other organisational environments can be discussed.

The case study method was chosen to gain comprehensive results. As explained by Ghauri (2004), this is a good way to gain a variety of information in a cross-cultural setting of a multinational. In addition, even though the research method has its limitations, for this thesis it produced findings which are consistent with each other and with those of other researchers, e.g. Jokinen (2010), Sinickas (2009), Lehmuskallio (2006) and Cutlip et al. (2006).

Although the number of participants in this study, 485, makes a large sample size, it is still a small share of the total amount of personnel Globemec has worldwide (approximately 9,600 at the time of the survey). However, as was shown in Section 4.1, the sample seems to represent the entire personnel fairly well.

The data collection method of the survey may have affected the results of this survey because it was obvious that the most active intranet users would take part in the survey while the passive users who visit the intranet seldom would not raise their voices. The most common way to approach the target group of a web survey would be to send an e-mail invitation. In this study, since Globemec wants to avoid sending surveys by e-mail, this method was not an option. Instead, an intranet news article on the main page was used to approach the target group.

Furthermore, since the data sample used in the study was relatively small (one case company), no generalizations can be drawn from the research findings. The aim of the study was not to test a hypothesis or to generalize based on the findings, but to find out opinions of employees.

Eskola and Suoranta (2005, p. 33) argue that a typical problem associated with qualitative research methods is the lack of depth of the analysis since the analysis often stays at the level of direct quotes. This study, however, presented both quantitative and qualitative methods because the survey questionnaire included both multiple choice and open ended questions.

The present study focuses on a particular phenomenon in a multinational and therefore makes use of case study research design. According to Gerring (2007, p. 7), a better understanding of the whole subject can be gained by focusing on a key part. He argues that, sometimes, in-depth knowledge of an individual example is more helpful than fleeting knowledge about a large number of examples. In short, the product of a good case study is insight.

6.3 Suggestions for future research

Based on the findings of earlier research and the study conducted at Globemec, it is obvious that communications is not the only function to make sure that information is equally distributed and knowledge sharing made possible for all employees within a multinational. Thus, one interesting area for further research would be to examine the role communication practitioners play in implementing and developing new communication tools in multinationals in the future.

Furthermore, there are several interesting areas in this study that were only discussed in brief but that could be researched further. First of all, since the present study focused on studying the intranet from the users' point of view, the perspective of other groups – for example, content producers or site developers – could be studied. Second, a similar study is recommended to be repeated in the same case company in a couple of years when the improvement ideas of this study have been implemented and the next version of the programme SharePoint has been taken into use at Globemec. Third, Globemec

would obviously benefit from a study covering other internal communication tools than the intranet. More precisely, it would be interesting to find out how other tools and channels could support the intranet and its role as an important internal communication channel.

Finally, another direction for further research would be to carry out a similar study of intranets in other multinationals or other types of organisations. It would be interesting to make comparisons between companies in terms of how actively intranets are used as information and knowledge sharing channels utilising modern technology and social media.

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APPENDICES

APPENDIX 1: The intranet survey questionnaire (6 pages)

1. Background information

Gender

- o Male
- o Female

Age

- o < 30
- o 30-39
- o 40-49
- o 50-59
- o > 59

Employed at Globemec

- o < 1 year
- o 1-2 years
- o 3-5 years
- o 6-10 years
- o 11-20 years
- o > 20 years

Country

- o Albania
- o Argentina
- o Australia
- o Austria
- o Belgium
- o Brazil
- o Canada
- o Chile
- o China
- o Croatia
- o Cyprus
- o Czech
- o Denmark
- o Estonia
- o Finland
- o France

- o Germany
- o Greece
- o Hungary
- o India
- o Indonesia
- o Ireland
- o Italy
- o Japan
- o Korea
- o Malaysia
- o Mexico
- o Morocco
- o Netherlands
- o New Zealand
- o Norway
- o Poland
- o Qatar
- o Reunion
- o Russia
- o Singapore
- o Slovakia
- o Slovenia
- o South Africa
- o Spain
- o Sweden
- o Ukraine
- o United Arab Emirates
- o United Kingdom
- o United States
- o Other – please specify: _____

Organisation (choose only one)

- o Support/Corporate function
- o A business area
- o B business area
- o C business area
- o Supply organisation
- o Americas region
- o Asia-Pacific region
- o EMEA region

2. Use of the intranet

How often do you visit the intranet?

- o Every working day
- o Once a week or more often
- o 2-3 times per month
- o About once a month
- o About once every 2-3 months
- o Less frequently

What is the most common reason for you to go to the intranet? Choose only <u>one</u> alternative.

- o Looking for specific information on the intranet – please specify:

  _____
- o Accessing a team site
- o Reading the latest internal news
- o Looking for local information
- o Searching a colleague in Phonebook
- o Looking for contact information in a Globemec office
- o Updating/creating content on the intranet
- o I usually do not look for anything specific
- o The intranet is set as default front page

Which of the following do you follow or use on the front page of the intranet? You can choose several alternatives.

- o The intranet front page
- o Breaking news
- o Internal news
- o Appointments
- o Press and stock exchange releases
- o Banners
- o Rolling alerts
- o Useful links
- o The intranet links
- o Most visited pages
- o Latest updates
- o Best rated pages
- o My Links
- o Corporate Calendar
- o News alerts
- o Alerts on other content pages
- o Team sites
- o Other – please specify:

  _____

Which of the following interactive features and internal social media would be beneficial in your daily work? Please select all suitable alternatives.

- News commenting
- Discussion forum
- Blogs
- Wikis
- Globemec internal social network (with functionalities similar to LinkedIn, MySpace, Facebook)
- Other – please specify:

_____

- I am not interested in this kind of tools

How satisfied or dissatisfied are you with the following qualities of the intranet?

(1=Dissatisfied, 2=Fairly dissatisfied, 3=Neither satisfied nor dissatisfied, 4=Fairly satisfied, 5=Satisfied)

- Page loading time
- Visual look of the intranet
- Content and structure
- Readability
- Ease of finding information
- Clarity of top and left navigation
- Up-to-datedness of information
- Usefulness of information
- Usefulness of the search function
- Possibility to interact through the intranet
- The intranet as a whole

3. Finding information

Do you find the information you are looking for on the intranet?

- Always
- Most of the times
- Sometimes
- Hardly ever – please specify, why:
  _____

Which of the following ways do you use most for finding information on the intranet? Choose only <u>one</u> alternative.

- Search function
- Top and left navigation
- Browsing through various sections
- The intranet site map

Do you find what you are searching via the <u>search</u> function?

- o Most of the times
- o Sometimes
- o Hardly ever
- o I do not use the search function on the intranet – please specify, why:

_____

Do you find what you are searching via <u>top and left navigation</u>?

- o Most of the times
- o Sometimes
- o Hardly ever
- o I do not use the top or left navigation for searching on the intranet – please specify, why:

_____

Do you find what you are searching via <u>Phonebook</u>?

- o Most of the times
- o Sometimes
- o Hardly ever
- o I do not use the intranet Phonebook – please specify, why:

_____

Do you find the link listings on the front pages of various sections e.g. Functions useful (Here you can..., Useful links and Recommended reading)?

- o Yes
- o No
- o I don't know

Do you find the local information of your country and/or site on the intranet?

- o Yes
- o No
- o I don't know

What kind of local information do you look for /would like to have on the intranet? You can choose several alternatives.

- o Your own site and country information
- o Recreational activities
- o Job-related information
- o Other – please specify:

_____

Do you use any other intranets than the intranet?

- o   Yes
- o   No
- o   If yes, please specify which and why:

_____

4. Other feedback

What do you find most useful on the intranet?

Open- ended

What do you think is unnecessary?

Open ended

What is good about the intranet?

Open-ended

What should be improved on the intranet?

Open-ended

Do you have any other comments you would like to send to the intranet development team?

Open-ended