

Virtual Social Networking for Business Purposes

Sebastian Regber

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Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person, nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

-Sebastian Regber-

Master of Business Candidate

Student ID 0831103

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Abstract

The concept of social media is high on the agenda for contemporary senior executives. Decision makers, such as CEOs, as well as support workers, such as consultants, are striving to make profitable use of existing virtual social networks (VSNs) such as Facebook or LinkedIn which present possible platforms for the concept of social media. This study focuses specifically on VSNs in the workplace. The research was undertaken to develop an understanding, from the organization's perspective, of the benefits and disadvantages involved in maintaining a VSN account for the purpose of encouraging knowledge sharing, collaboration, innovation and other commercial activities.

The study involved a review of the literature in the field and the development of an online survey platform. The literature review uncovered a tendency to treat VSNs as a process rather than by their function. Subsequently, a framework has been developed which classifies the various VSNs in use according to their functionality i.e. as primarily business-related, socially-related or as blended virtual networks. The framework further classifies the VSNs according to whether they are publicly or privately accessible. The methodology adopted was quantitative statistical analysis with qualitative variables, with a focus on descriptive statistics. A hybrid of snowball and convenience sampling was applied. A survey questionnaire was developed and spread via VSNs among 337 employees of different kinds of organizations in order to identify how and why they use VSNs. The main benefits of VSN use, from the organization's perspective, were identified as quick and informal communication, relationship encouragement, and knowledge sharing. Industry types that tended to use VSNs most were Repair and Maintenance, Personal and other services, and private households employing staff. Approximately half of employees (53.1%) were encouraged to use VSNs for business purposes and maintained a corporate account (58.8%), mostly with Facebook (64.4%). The use of business-related VSN use was found to be dependent on job level. Most companies in the survey had been maintaining a corporate account for between 1 and 3 years and updated it daily under the rules of social media guidelines that had been introduced by 69% of organizations. The power of VSNs nowadays is illustrated by the fact that 87.7% of respondents regarded them as a serious business tool. Furthermore, 35.35% of organizations were planning to introduce the usage of VSNs in the future. VSN features identified and used were predominantly advertising (68.1%) and information purposes and PR (56.9%) aiming to contact principally

potential and existing customers. The surveyed organizations not using VSNs identified security reasons such as cyber bullying and cyber stalking (51.6%) as well as privacy issues and data leakage (44.7%) as the main issues.

The findings of this study contribute to our understanding of VSN use in the business context and can act as guidelines for organizations planning to adopt VSNs as part of their strategy. The relevant theoretical, historical and critical contexts of embedding the use of VSNs into business practices are discussed. Managerial implications on how organizations can utilize VSNs for business purposes in a profitable way are also made.

Chapter 1: Introduction

1.1 Introduction to the Chapter

This chapter covers the origins of, and background to, this study on virtual social networks (VSNs). The prevailing problem in the area is stated and the research questions presented. The methodology adopted is then introduced before the significance and of the study and its delimitations and assumptions are outlined.

1.2 Background to the Study

The history of VSNs appears to go back to the year 1978, when Linton C. Freeman came up with an “Electronic Information Exchange System”. This allowed the staff of the New Jersey Institute of Technology to email each other, operate a list server and view a bulletin board (Wasserman, 1994). Since the launch of the SixDegrees.com portal in 1997, there has been enormous growth in user behaviours and the exploitation of such sites (Boyd & Ellison, 2008). Since its inception in 2004, Facebook has gained over 800 million users and is attracting more and more daily (Facebook Statistics, 2011). Figure 1 shows the tremendous growth of Facebook over the last six years.

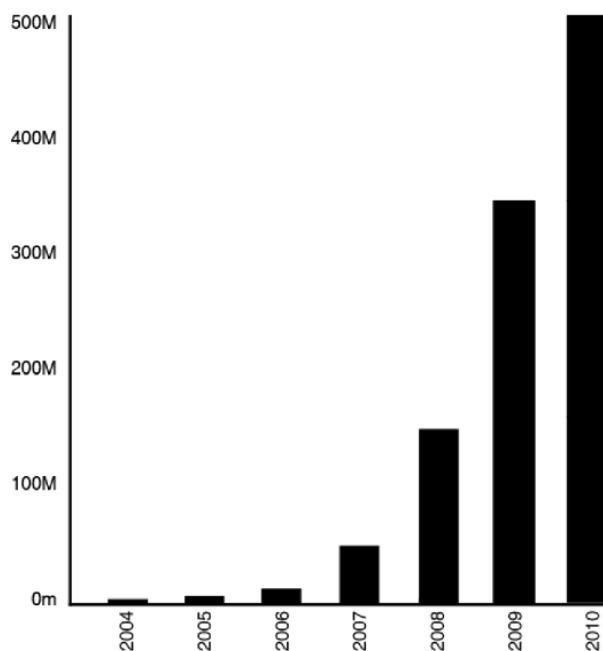


Figure 1: Facebook user growth over the last six years

Source: (Zarrella, Driscoll, & Zarrella, 2010).

According to Zarella, Driscoll and Zarella (2010), there were approximately 500 million Facebook users in 2010. In fact, the average monthly growth in members is approximately 3.5%, which is equivalent to 21.5 million newly signed-up users per month (Eldon, (2011); Nicholas, (2011)). Users of these VSNs free up time on a daily basis to use these platforms. According to Facebook Statistics (2011), this time equates to over 700 billion minutes per month on Facebook alone.

Currently, there are many hundreds of VSNs with different purposes, from dating sites dedicated to picture sharing and professional networks, they seem to share a reasonably similar structure. However, the cultures, demographics and psychographics that surround these numerous VSNs differ significantly. VSNs seem to group members with common interests or characteristics – people can be classified by ethnicity or political or religious views, just to name a few. The purpose or aim of belonging to any given VSN varies widely, as VSNs evolved for different purposes. Some VSNs even have shifting purposes or serve users with different needs or goals. A prime example of this is Facebook, which serves as a medium for socializing among friends as well as giving companies the opportunity to market themselves by creating an account. Business-oriented people tend to affiliate themselves with LinkedIn, a professional VSN launched in 2002. The Society for Human Resource Management (SHRM), the world's largest association of hiring managers, found that 95% of job recruiters who use social networking sites look at LinkedIn to search for candidates (Stafford, 2011). People seeking to join a VSN that will link them to others with common interests (such as books, games, pets or art, for example) can join Meetup, a website founded in 2001. Dating sites such as Match.com, founded in 1994, are also considered VSNs, serving as the portals for millions of singles to meet (Boyd & Ellison, 2008). For a summary of the most common VSNs, their different purposes, and their development of user counts over the last three years, see Figure 2.

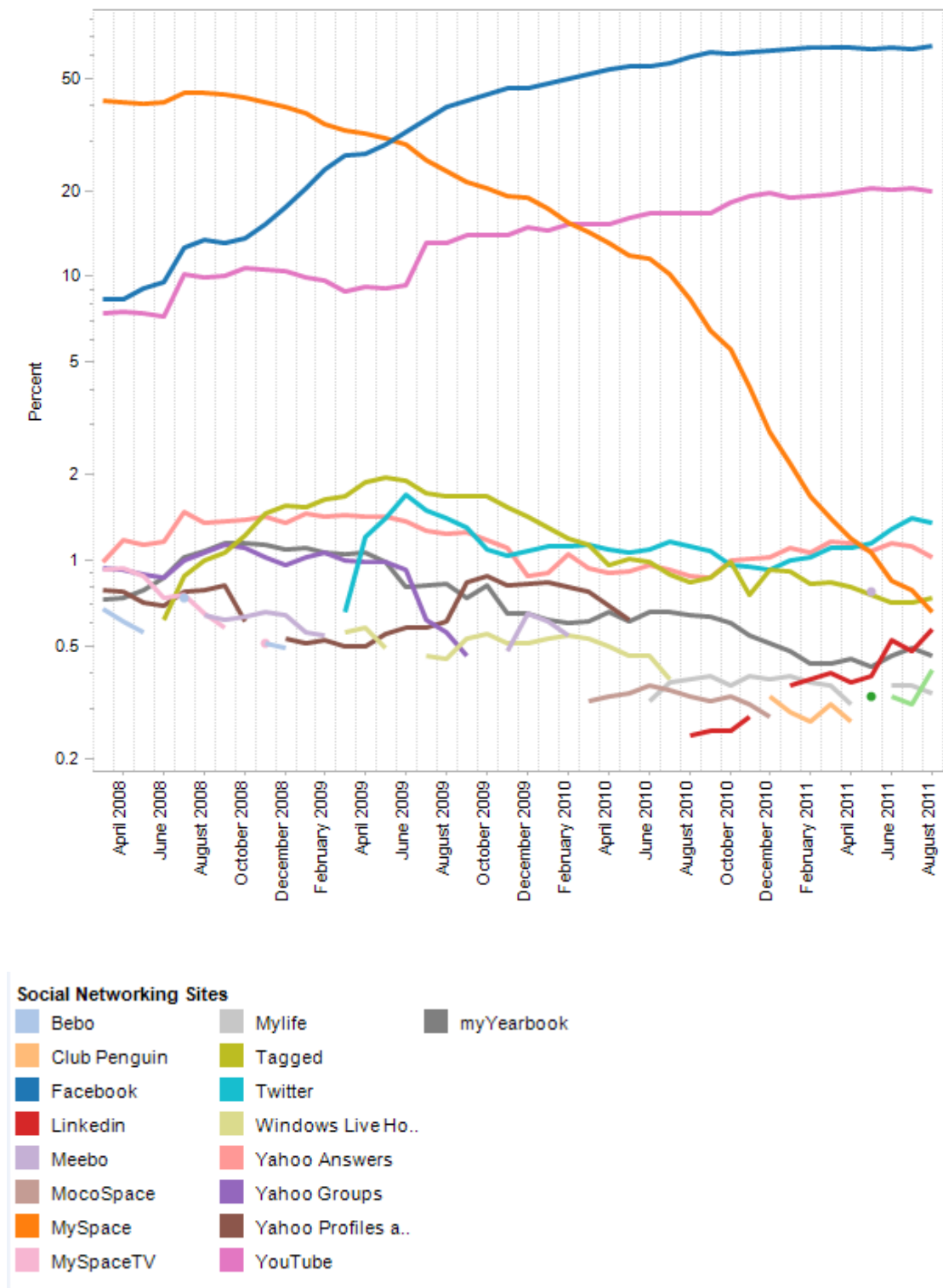


Figure 2: Top social media forums in the US market (including VSNs)
Source: Kallas (2011)

In the business context, VSNs such as Facebook and LinkedIn can profit from the rise in the social media activities of enterprises. Sixty-one per cent of Fortune 100 enterprises were using Facebook to further their online presence and communication

with their customers in 2011. On the regional level, Facebook enjoys the greatest public confidence in the USA, with 72% of American enterprises having a fan page (Kallas, 2011). In Europe, however, often-repeated discussions about privacy issues and data sharing may have negatively affected Facebook's results. Despite these concerns, the majority of European enterprises also have a fan page (Kallas, 2011).

Facebook has registered its biggest increase in Asia, where it rose from 40% use to 50% use between 2010 and 2011. The strong trend towards subject-based fan pages is also significant. Companies that are already on Facebook seem to be transferring increasingly internal structures onto the fan pages, e.g. account structures adapted from the company's organizational chart / organigram. This means that large enterprises with many different business segments have not only one fan page, but a whole series. Hewlett-Packard in the USA already has 51 Fan pages, and the car manufacturer Ford has 23 (T3News, 2011). Also remarkable is the fact that LinkedIn grew by 200% in 2008 despite the economic recession, gaining 35 million new registered members from diverse business sectors (LinkedIn, 2011).

However, despite the ongoing success of VSNs in gaining the interest of investors and members, industry participants and academics alike are concerned about the long-term sustainability of the business model, given that the profitability of some of the existing VSNs is questionable. An impressive member count does not guarantee high profit by itself. A common method of financing is to get a share of the revenue from companies advertising on the VSN. the companies' revenue will in turn define the share for the VSN (J. Cha, 2009). The lack of established business models in the social networking site market prompted Cha (2009) to suggest answering that shopping services be offered on the VSNs in order to exploit and monetize the huge number of users.

However, despite the ongoing success of professional business networks, the market penetration of VSNs is high and that in turn makes it more challenging for current leaders such as LinkedIn to survive and keep their position in the market. In fact, Ushi, a professional networking site with just 250,000 members, launched its platform in May 2010 and aims to become China's LinkedIn, drawing on trustworthy members only accessible through invitations from those who are already members and outpacing its predecessors Tianji and Wealink in regards to traffic. LinkedIn is not, as Facebook is, prohibited in China, but it has not yet entered that market (Suhr, 2011).

1.3 Problem Statement and Research Questions

In the midst of an increasingly globalized business environment, companies are being presented with new channels to reach potential customers, thereby increasing the exposure of their product or service. At the same time companies have benefited from VSNs by utilizing the virtual platform to distribute information and hire people. Organizations are currently exploring the world of VSNs, how to use them and what to use them for. As VSNs are a fairly untouched topic in the academic context, there is a demand for research to give organizations guidelines on how to get started using these new channels to create the highest possible output. In order to address the gap in the literature, the following research questions were developed:

RQ1: What is the state of corporate VSN use to date?

RQ2: How can an organization make use of VSNs in a constructive way for commercial purposes?

The purpose of this study is to explore and analyse the current usage of VSNs by organizations on an international basis, including revealing the most frequently used VSN features and the frequency of account updating. It attempts to categorize the functions organizations use VSNs for and the functions of VSNs organizations use. Further, the study examines reasons for not using VSNs and provides recommendations for future users and social media managers. Discussed topics at the higher level of business in conjunction with virtual networks are human resource (HR) recruitment, marketing, customer service, product development, enhancing business relationships and information and communication. The author has explored the application of this relatively new channel to business purposes. In particular, the study will concentrate on VSN use in the workplace.

1.4 The Professional Significance of the Study

VSNs have become a commonly used tool in an organizational context to develop relationships among members or staff. Additionally, they are employed to improve the potential for the exchange of information and cooperation at work. To date, research has been conducted mainly on the impact VSNs have on user behaviour of target groups, i.e. youngsters and students. Hence more research needs to be conducted on VSNs in an

organizational context, which means examining the use of VSNs in organizations. It can be assumed that, for example, the use of VSNs in an organizational context diverges from the use of a VSN such as Facebook among students.

It is possible that people in an organizational environment use VSNs in a goal-oriented and focused way rather than a casual way. Furthermore, there possibly will be less unconstrained humour and light-hearted content, and less self-disclosure and self-presentation, depending on the organizational cultural context – perhaps due to the fact that members know that supervisors are viewing traffic. Furthermore, the swap of information may be complicated by issues regarding intellectual property. Taking into account these previously unexamined differences assumed between casual VSNs among students and VSNs in organizational contexts, it is suggested that the product/outcome for each is different.

It is therefore the author's intention to investigate this potentially fertile area. Detailed research will be conducted into the tensions that arise when home and work networks overlap, e.g. while using VSNs in the workplace. Examples could be when competing clients "friend" the same salesperson, or when a manager asks to be "friends" with subordinates. Members exposed to such situations may not only wonder how to react, but also be unable to refuse the requests. They may have to adjust their usage behaviour or risk alienating important clients or revealing information that may cause his or her standing at work to be diminished.

1.5 An Overview of the Methodology

The research was conducted by gathering both qualitative and quantitative data through an online survey which was spread through the internet onto various VSNs. A fully detailed description of the methodology is presented in chapter 4.

1.6 Limitations of the Study

Since there is a substantial number of publicly available VSNs, it is not possible to analyse the entire range of users of each existing VSN. The researcher therefore decided to limit this study to the currently most popular VSNs. Further, the research is limited to only publicly accessible VSNs. Hence, internal VSNs (i.e. password-protected, operated

only within a company and used for work purposes) were not examined as there was no opportunity to view them in the scope of this study. However, they could be investigated in a subsequent research project.

The research consisted of a questionnaire that was sent to participants who were asked to answer from the organization's perspective. Since the author had no influence over who in the organization was going to participate in the survey, however, the answers might have been subjective perceptions that deviated from the organization's official position.

Another aspect worth noting is the lack of scholarly and peer-reviewed data in academic journals. This is due to the relative newness of the emerging topic of social media. This in turn has led the author to source information from other sources such as newspapers and magazines. Some data can only be supported by reports and online web forums as the author found no indication of any scholarly research, either in academic journals or on other relevant databases such as EBSCO, Google Scholar and ABIGlobal.

1.7 Definitions of Key Terms

Virtual social networks (VSNs): “Applications allowing users to build personal web sites accessible to other users for exchange of personal content and communication” (Palmer & Koenig-Lewis, 2009, p. 164).

Facebook: a VSN service and website that was launched in February 2004 and is operated and privately owned by Facebook, Inc. Registered members may create a personal account, and subsequently add other members as “friends”, and exchange messages, including automatic notifications. Other services, such as notifications about a friend's profile are offered. In addition, users may join common-interest user groups, arranged by a workplace, school or college, or other aspects. Facebook allows anyone who declares themselves to be at least 13 years old to become a registered user of the website (Boyd & Ellison, 2008; Eldon, 2011).

LinkedIn: a business-oriented VSN founded in December 2002 by Reid Hoffman and launched in May 2003. It is primarily used for professional business networking. As of 4 August 2011, LinkedIn has more than 120 million registered users, spanning more

than 200 countries and territories worldwide. The site is available in English, French, German, Italian, Portuguese and Spanish and has 21.4 million monthly unique US visitors and 47.6 million globally (LinkedIn, 2011; Skeels & Grudin, 2009). LinkedIn is the first major US social-media company to go public and has a current market value of \$8.4 billion, equivalent to about 22 times its 2011 revenue. Revenue projections for the three remaining quarters of the 2011 fiscal year are expected to match or exceed that revenue of the first (Rapaport & Turner, 2011).

1.8 Assumptions

This study focuses was designed to research how organizations use VSNs and what they use them for. It was anticipated that prospective participants would complete the questionnaire truthfully and on a voluntary basis. It was further assumed that participants would either follow the link on a publicly accessible website or follow the link in a personally addressed message via one of the selected VSNs.

1.9 Outline of the Dissertation

This first chapter presents the background and purpose of the study. It also states the research questions and includes the limitations of the study. Chapter 2 then provides a comprehensive literature review including discussion of definitions and business features of VSNs. Chapter 3 outlines the theoretical framework of the study based on the identified gap in the literature. Chapter 4 accommodates the methodology of the study – how and why the research was carried out. The alternative ways of approaching the research, data collection, validity and reliability are also discussed.

In Chapter 5 the empirical findings gathered from the collection of primary data are extracted and research outcomes are presented. Chapter 6 then discusses the findings and concludes the dissertation by listing the main outcomes of the study and summarizing the research. The contributions of the research are identified and recommendations for further research are made.

1.10 Chapter Summary

This chapter presented the background facts and key figures related to the chosen topic as well as the significance of the topic. Further, the need for this kind of research was identified and two research questions were proposed to address the gap in the literature. Lastly, an overview of the study, including its methodology, limitations and assumptions, was presented, as well as an outline of the entire dissertation.

Chapter 2: Literature Review

2.1 Introduction to the Chapter

This chapter firstly covers the basic characteristics of VSNs and their origins. Subsequently, light is shed on VSNs in the context of business, covering the history of VSNs in the business world as well as their benefits and hazards. The chapter then focuses on the functional use of VSNs in the business context such as in HR recruitment or marketing activities.

2.2 VSN: Definitions and Properties

A remarkable amount of research has been conducted in the field of VSN development and thus its characteristics have been well established (Powell, Piccoli, & Ives, 2004). Thus the area of VSNs can be classified as an academic or applied research knowledge base, as suggested by Crebolder, Pronovost and Lai (2009). With this in mind, it is important to begin by defining the fundamental concepts of this knowledge base.

Boyd and Ellison (2008) defined social network sites as:

Web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site. (p. 1)

Crebolder et al. (2009), researching and analysing the social network phenomenon as a whole, pointed out that “a social network constitutes connections (ties) between nodes (individuals) that share an incentive link together ... such as interests, ideas, expertise” (p. 4). However, they emphasized that connection to a variety of VSNs is a success factor in the business world and that such connections appear to be more effective than concentrating on connections within a single VSN. Hanneman (2001) saw the properties of VSNs as relating to size, density, degree and reachability. Stocker, Green and Newth (2001) added connectivity, while Emirbayer and Goodwin (1994) put more emphasis on “multiplexity”. VSNs need to build communities over time. The community is a crucial factor of a VSN and will be explained further in the following subchapter.

2.2.1 Communities of Practice in VSNs

One of the aims of VSNs is to sustain and grow traffic. They therefore aim to develop relationships between users that will make them return frequently. In turn, if the community grows, the content and knowledge grows, disburdening the actual provider from having to create “artificial” content on the site. There is a slow transition from it being the provider’s responsibility to create content to it becoming the members’ responsibility and commitment to create the content that, in turn, generates the drive and self-renewing force on the platform. Additionally, it is in the members’ interest to keep the site well-built and visually pleasing, which in turn carries useful feedback to the site provider. Members represent themselves on a VSN and, at the same time, they associate themselves with the community and its values. Hence, members are able to express wishes, values and intentions to the site provider who, in turn, can respond to them. Members also provide useful and honest feedback to their community. The community feels responsible since they understand how the community should function from the social aspect, e.g. how the morals and principles of behaviour in the real world are rendered in the virtual world. As long as the members of the community have the feeling of being needed and being understood, they make the effort to attract prospective members and test new channels aimed at these new members, making use of the equipment the website provider supplies. Thus the recruiting is mainly done by the community – more efficiently than it could be done by the site provider itself (Figallo, 1998).

Comparing the values and intentions of a real-world community with those of a virtual community, Figallo (1998) established three parameters: interactivity, focus and cohesion. The attributes of a community are hard to categorize however since it is individuals who say whether they feel part of a community or not (Figallo, 1998). In fact, if a particular person is missing the feeling of being part of a community, in a sense there is no real community, even if everyone else has the feeling of belonging to it, since for that one person the community does not exist. As stated by Figallo (1998), “the feeling itself is a function of the relationships that an individual has with others”, where those others may be members or hosts of the site, and “the more the relationships overlap and interweave with each other – the more complex the web of relationships – the stronger the ties to the community” (p. 1).

Relationships grow out of treasured exchanges between humans which can be in the form of goods or information. In order to vitalize relationships, the community must

maintain this intention in order to expand. However, a community can be established in a short time period if circumstances are favourable, e.g. when there is a focus on a topic and the people who feel they belong to the community.

As pointed out in section 1.2, Facebook is currently the dominant VSN in terms of members and member growth. Facebook is a publicly accessible VSN where everybody, including organizations, can create a public profile. Private end users can become fans of particular pages by “liking” them and connect with each other through “friending”. Zarella (2009) pointed out that this VSN offers the most valuable features that can be of use to an organization becoming active in this channel. Initially, the site was originally limited to university students and the majority of its users are still those aged under 35, however, the 35–54 age group is the fastest growing user group, and is larger than the 18–24 segment (Zarella, 2009).

Brady, Holcomb and Smith (2010) have researched non-commercial, education-based VSNs such as Ning – a VSN used in education. They showed that VSNs build communities of practice and facilitate social presence for students enrolled in distance education courses. This kind of VSN can be used most effectively in distance education courses as a high-tech instrument for improved online communications. In this context Lave and Wenger (1991) developed their framework of legitimate peripheral participation (LPP) which holds that newcomers turn into knowledgeable members and eventually old-timers of a “community of practice” or collaborative project. A community of practice was described by Wenger (1998) as a “joint enterprise as understood and continually negotiated by its members ... with relationships of mutual engagement that bind members into a social entity ... and a shared repertoire of communal resources” (p. 2).

Lave and Wenger (1991) explain the development of new members through peripheral activities. They become familiar with the tasks, vocabulary and organizing principles of the community. Thus, their participation can become more central to the functioning of the community, which is mediated by practical types of participation to which newcomers have access, both physically and socially. Through observing experts, newcomers can understand the context of the community’s goals and put themselves into it. However, without access to social participation and experts and their tools, those newcomers have limited growth.

Backstrom, Huttenlocher, Kleinberg and Lan (2006) researched community growth in VSNs on a long-term basis and at both the individual and global levels (in terms of membership and content), using the technique of decision trees in order to find out the most significant structural determinants. It was found that the tendency of potential members to join, and therefore the VSN's growth, is highly dependent on delicate characteristics in the underlying network structure (e.g. nodes in the second or third degree). In a virtual network, a node can be regarded as connection point especially in terms of data transmission (e.g. information) (M. Cha, Mislove, & Gummadi, 2009). A node can process or forward data to other nodes. Nodes can be understood as (online) acquaintances or business contacts (Mislove, Marcon, Gummadi, Druschel, & Bhattacharjee, 2007).

2.2.2 Critical Success Factors

Leimeister, Sidiras and Krcmar (2004) provided a list of 32 critical success factors found in the literature for the successful evolution of virtual communities and adjusted their rankings via an online survey. Their analysis took place from the perspective of male and female users as well as operators of commercial and non-commercial communities. As this study is focused on businesses using VSNs, Leimeister et al.'s (2004) list will be limited to the following ten relevant factors:

1. Handling member data sensitively
2. Stability of the website
3. Short reaction time of the website
4. Offering up-to-date content
5. Encouraging interaction between members
6. Building trust among members
7. Building a strong trademark
8. Defining sources of revenue as starting condition when building a virtual community
9. Increasing market transparency

10. Constant extension of offerings

All in all, these factors aim to ease collaboration while analysing the portraits of user accounts including its preferences in order to attract a prospective customer and give him/her a reason to be part of a digital community (Ferguson et al., 2004).

Factor 6 above highlights the role of trust, which Mital, Israel and Agarwal (2010) showed to be a prerequisite for establishing a VSN. This role is outlined below.

2.2.3 The Role of Trust in VSN

According to Mital et al. (2010), there is a considerable correlation between information exchange and information disclosure. A correlation between trust and information disclosure has also been found which is, in turn, dependent upon the type of information exchange. This indicates that the more information exchange is valued, the higher the information disclosure and trust is valued. Nolan, Brizland and Macaulay (2007) studied the role of trust as trigger for online activity in VSNs and found that “social loafing” and the theory of “legitimate peripheral participation” (LPP) define the extent of how much an individual would contribute to a VSN (Lave & Wenger, 1991). Further a VSN can degenerate to a high degree when physical signals showing ongoing dialogues are missing. This is called full participation in the context of LPP and thus, is the crucial factor for VSNs. Trust will decrease on the part of those who doubt the motives of other members of the community when the amount of LPP decreases (T. Nolan et al., 2007). The rationale of business-related VSNs is justified in the following section.

2.2.4 Rationale for Business-related VSNs

Online communities play a crucial role in stimulating knowledge creation since the members ask for valuable and specific information and expert insight, with a minimum of administration and a minimum of time for the distribution of information (Davenport & Prusak, 1998; O’Murchu, Breslin, & Decker, 2004). Lea, Yu, Maguluru and Nichols (2006) have shown that VSNs vitalize social and economic advancements through the utilization of communication and information technologies that interact and share knowledge which in turn stimulate commerce activities and thus improve business networks.

According to Crebolder et al. (2009), another rationale for setting up purpose-focused VSNs is the limitations of traditional web-based collaborative tools such as blogs or email, particularly when it comes to the sharing of knowledge between multiple

parties. Often, huge amounts of information must promptly be made available to particular members who are scattered around the globe (e.g. for special operations regarding a new project, innovation, etc.). VSNs can meet this need and offer particular information to particular people in a timely manner. However, it is a pull-based mechanism which means that it needs the direct action of users in finding and swapping information. Hence it all depends on the users and thus we return to the community as a foundation for the existence of VSNs. Further, the users seek to know the type of information needed, information sources and appropriate recipients. Lea, Yu, Maguluru and Nichols (2006) explained that members can transfer information and assist each other in finding solutions for particular problems as they can be connected globally without physical boundaries. This cooperation results in accumulated knowledge, information management, technology and innovation that can be shared with other interconnected networks (Komninos, 2002). Another outcome might be the establishment of social support and new social or business contacts (Hogg & Adamic, 2004). Apart from knowledge transfer, an important objective of professional VSNs is the transformation of human capital – including financial goods or services – into business opportunities (Garton, Haythornthwaite, & Wellman, 1997). A good example of this is the internet provider AOL, which uses network aid in delivering crucial local commerce information and thereby implements the features, e.g. on-site advertising, in vertical markets such as real estate or health (Ishida, 2002).

2.3 VSNs in the Business Context

2.3.1 History of Professional Business Networks

The first recognized VSN for business was started in 2001. Called Ryze, it was basically maintained by entrepreneurs and future VSN founders in San Francisco. It was followed later by Tribe, LinkedIn and Friendster, which all had similar purposes which were connecting people and helping them to stay in touch with each other, as well as discovering new people and things that might become relevant for them. However, it should be mentioned that none of them, apart from LinkedIn, ever had a successful breakthrough (Boyd & Ellison, 2008).

One recent example of a virtual community focused on information and knowledge sharing is Virtual Vienna, which places considerable emphasis on the implementation

of digital technologies in its administration body (Götzl, 2002). Virtual Vienna aims to promote business across borders and the structure accommodates approximately 120 European cities and, gives strategic implications for evolving eGovernment. Its four pillars are knowledge transfer, policy and dialogue, dissemination activities, and support and assistance, carried out in policy papers, working groups and EU projects. Therefore, all participating cities must be prepared to accept a lot of changes in their public administration in order to create suitable policies to generate business activity across the EU borders.

Kumar et al. (2006) portrayed the possible outline of the evolution of large online social networks, in their study Flickr and Yahoo! 360, which they saw as segmented into three parts. Firstly, there are individuals not contributing to the network; secondly, they form isolated groups displaying a star structure; and thirdly they form a soundly linked core part. Members were found to be either passive or so-called “inviters” who encouraged offline associates to migrate or “connectors” who contributed hugely to the social evolution of the network.

Gilbert, Ahrweiler and Pyka (2007) showed the natural constraints of traditional forms of organizational learning, such as learning by doing. However, Liebeskind, Oliver, Zucker, and Brewer (1996) analysed two successful new biotechnology companies and found that via a substantial number of collaborative research efforts with researchers at other companies and universities they were able to push both their learning and flexibility in a highly profitable manner. Liebeskind et al. (1996) concluded that this would not have been “possible within a self-contained hierarchical organization” (p. 428). It can be assumed that it was only possible because these companies had a focus, i.e. a research focus on biotechnological-related innovations. Interactivity was provided through the VSN they arranged. Cohesion was built up through a common aim, i.e. focusing on the research project in order to develop an innovation. That in turn would bring a win-win-success for both the companies and therefore business in the long-term, according to the Figallo (1998) model (elaborated in section 2.2.1).

Eysenbach (2008) described a pioneer project for medical innovation purposes based on web technologies. This technology creates a virtual community that enables participation and collaboration between the user groups who are, in particular, patients, caregivers, health professionals and biomedical researchers.

As the number of VSNs is growing continuously, on the one hand it has been reasonable for many organizations to invest in them with resources such as staff and time to create their profiles for promotion or advertising on VSNs. On the other hand, many companies continue to prohibit their employees from using VSNs (Boyd & Ellison, 2008). For insight into the hazards of VSNs for employees, see section 2.3.5.

To sum up, taking into account the four examples in the preceding section it can be seen that VSNs have been applied in the business context already, namely for medical innovation and biotechnology innovation purposes, member promotion on VSNs and knowledge sharing between European cities. There have been a handful of successful examples but managers remain hesitant. LinkedIn seems to have had the greatest success and the first steps have been taken to integrate VSNs in the business world and advance them to a highly integrated level in order to exploit their features.

2.3.2 The Status Quo of Integration of VSNs into Business

According to Steinfield, DiMicco, Ellison and Lampe (2009) and Ferdig, Dawson, Black, Black and Thompson (2008), there is growing interest in the professional use of VSNs, e.g. for business purposes. Nevertheless, as Thompson, Dawson, Ferdig, Black, Boyer, Coutts and Black (2008) pointed out, it seems there has been little research on the transition of VSNs into professionalism as VSNs are a fairly new area. Accordingly, this dissertation contributes by providing new and valuable information through researching current VSNs and their use in order to understand the emerging phenomenon. The aim is to gain an insight into the development of the transformation of VSNs from purely social networking platforms into ones that promote economic productivity and the creation of business by enhancing innovation potential or HR recruiting potential (Lea et al., 2006);(Hustad, 2004). Additionally, some implications and directions for future strategies in the deployment of VSN-based professional communities are also identified.

Moitra and Krishnamoorthy (2004) emphasized technology-based competition accompanied by the growing importance of research and development (R&D) as the main determinant of global competitiveness since the World Wide Web created the opportunity of establishing a R&D community able to solve specific technical and business problems, especially for innovation-focused businesses. Enterprises adjust their R&D capability and innovation, e.g. as a result of unexpected occurrences, incongruities, process needs, industry and market changes (Drucker, 1999). According

to Teece (1997), innovation is crucial for the generation of success that is sustainable and has the competitive edge over business competitors. Gilbert et al., (2007) state in their framework for modelling learning competence that the intention of firms with dissimilar knowledge stocks to enhance their economic outcomes by creating in radical or incremental innovation actions, engaging in joint ventures and networking with other companies which could, in turn create the firms' core business strategies, accumulating in a competitive advantage, pointing to the use of VSNs. For example, the product MySQL, a relational database management system running as a server that supports multi-user access (Schumacher & Lentz, 2007), is considered as an incremental software innovation supported by a commercial open-source software development process which is founded on a web-based proprietary business model, in particular through knowledge sharing in a virtual community, and turned out successful through having a competitive advantage as described above (Burgelman, Christensen, & Wheelwright, 2008). Moitra and Krishnamoorthy (2004) talk about "enrolling the expertise of the globally dispersed talent pool and extending beyond the firm boundary into a virtual world" (p. 32). Hence it can be seen that the main focus appears to be on innovation and competitiveness.

A recent US survey suggests more businesses are considering using VSNs in the workplace. Robert Half Technology surveyed 1,400 chief information officers and reported that 51% said they permitted employees to use Facebook, Twitter and other VSNs on the job for business purposes. Remarkably, this represents an increase from only 19% in 2009 (Oakley, 2011).

Osterland (2011) notes that Morgan Stanley Smith Barney LLC became the first major Wall Street firm to allow its financial advisers to use popular networking websites in May 2011. Initially, 600 financial advisers have been given greater access to LinkedIn and will have "partial use" (p. 1) of Twitter. They are allowed to share profiles on LinkedIn and communicate on the network. On Twitter they are allowed to share preapproved status updates within social and professional networks. "Preapproved" means that each item posted by advisers on a VSN is preapproved by the firm. Furthermore, there is a library of preapproved content, using the Voices software platform by Socialware Inc., to control the process. The company plans to subsequently expand this tool to all its financial advisers to allow them to communicate with their clients. However, compliance concerns remain a major barrier

to companywide implementation, but the company is aware of the growing power of VSNs as marketing and communication tools.

When used in the workplace, VSNs may expose businesses, and in particular their employees, to ethical and security risks. Moreover, there are difficulties associated with verifying the validity and accuracy of postings or the authentication of employees acting on behalf of a business on a VSN. As a mass communication channel, VSNs are only edited by the reviewers or editors in the community of authorized employers. It can be assumed that each form of communication in social media such as blogs, online forums or instant messaging offers similar conditions in an enterprise environment. Additionally, when VSNs such as LinkedIn and Facebook are used in the workplace, organizations give away their control of service provision and underlying security systems (in comparison to an email server which is hosted within the organization and is therefore under the full control of the organization's administrators) (Lee & Warren, 2010).

As pointed out earlier, the use of intranet-based VSNs is considered preferable by many companies due to hazards associated with publicly accessible VSNs. A comparison of intranet- versus Internet-based VSNs is outlined below.

2.3.3 Intranet-based VSNs versus Internet-based VSNs

A number of companies – predominantly large technology companies – are advancing the creation of their own internal VSN software. A sequence of studies of IBM's Beehive system (now known as Social Blue) disclosed that such sites can attract large numbers of employees from around the world; assist in the socialization of new employees; and enhance employees' access to new people and sources of expertise within the company (Majchrzak, Cherbakov, & Ives, 2009).

A range of competing VSN providers such as Yammer, SocialText, INgage Networks, NewsGator, Spigit and other vendors have hurried to offer products for this promising market. These VSNs allow companies to set up private systems with internal databases, search and chat functionality (Charles Steinfield & Huysman, 2011).

Magnier-Watanabe, Yoshida and Watanabe (2010) researched the use of intranet-based VSNs and their influence on the productivity of staff and found them to "mildly improve efficiency in accessing knowledge or in increasing the number of business contacts" (p. 910). A further finding was that companies that use intranet-based VSNs

have both greater social capital and innovativeness and hence greater social network productivity.

However, an intranet-based VSN is not sufficient to exploit the vast pool of knowledge that can be accessed through an internet-based VSN as it only allows interactions between employees of the organization. In addition, there is no opportunity to share content with the public, e.g. with prospective or existing customers, or obtain useful news (Bhattacharya, 2011). However, intranet-based VSNs have been proven to be fruitful from the educational perspective, e.g. for training up staff in sales promotion or competing strategies for gaining new customers. Another advantage of intranet-based VSNs is their ability to support recruitment processes, identified in a study on Xavier University, Ohio by (Hayes, Ruschman, & Walker, 2009).

2.3.4 Potentials/Benefits Associated with Participating in a VSN

Wildstrom (2007) identified the invaluable feedback of customers in a timely manner as one of the main advantages of the use of VSNs. More and more online forums, companies and people are talking about social media and are suggesting it as a valuable tool for businesses. Indeed, VSNs have become the foundation of various start-up companies, offering users the opportunity to manage their own account as a valuable resource that can be developed and guided by comments (Kumar, Novak, & Tomkins, 2010). Boyd and Ellison (2008) considered VSNs as beneficial for different organizations in terms of the creation of customer communities for their products or services. A unique profile of people with distinctive descriptors such as political views or location triggers people with the same interests to communicate, share thoughts and give feedback. Furthermore, the company can announce new product launches or re-promote their existing product portfolio. Therefore a VSN has the potential to generate additional revenue but it must be borne in mind that a substantial amount of time is required to maintain a VSN presence properly (Boyd & Ellison, 2008). In this context, Einemann and Paradiso (2004) noted that entire economies can profit through VSNs by supporting the growth of “creativity and assist citizens to develop interaction and establish socio-economic forces at higher standards” (p. 1). Ochman (2009) confirms this, stating that “for companies, resistance to social media is futile. Millions of people are creating content for the social Web” (p. 1).

2.3.4.1 Successful Current Examples

A recent successful example of implementing corporate VSN use is Home Depot, a US retailer which is planning to increase its engagement with social media to build brand awareness and customer service. The retailer will introduce a designated employee group of Social Media Store Associates who are in charge of advertising favourite products online, sharing home improvement tips, and answering questions about home improvement projects (Planet Retail, 2011a).

Another US company, pet speciality retailer PETCO recently increased its number of followers on VSNs by 62%. The retailer hid a letter of a word on one of its VSN profiles each day for a whole week, and shoppers were asked to engage with the page and craft a photo caption on a published picture. Participants had the chance to win one of five USD500 PETCO gift cards after that week. This promotion's outcome was 3,500 comments on Facebook, i.e. 775% more than its previous record number of comments (Planet Retail, 2011b). As can be seen, with relatively little financial effort the company could capture attention, increase traffic on their website and arouse awareness of its products and brand (see section 2.4.10). Brand awareness will be discussed in more detail below.

As an aside: Apart from the business context, Ancu and Cozma (2009) stated that political members have made use of VSNs in a promotional sense. The US headquartered and very successful VSN MySpace was used by politicians to increase political awareness and to reach disinterested people. They were aiming for visits and comments on their own page through prospective voters to strengthen existing attitudes. (Utz, 2009). To sum up, apart from business purposes, VSNs can also be used for political purposes such as for the promotion of views or policies. That implicates a variety of prospective opportunities for commercial and political use of VSNs.

The above section covered the potentials and benefits associated with VSNs. However, there are also drawbacks and dangers which are laid out in section 2.3.5 below.

2.3.5 Hazards Associated with Getting Active in a VSN

Wildstrom (2007) stated that tapping into the field of VSNs can be hazardous for businesses. The actual point of "danger" is the customer because his/her behaviour is

unpredictable. Once an organization starts allowing prospective customers to participate, it has to be cautious of the content published as it could give the organization a bad reputation, e.g. critical comments about a service/product are posted. However, as Wildstrom (2007) and Ellison et al. (2009) stated that is one unavoidable part of the culture of the World Wide Web.

2.3.5.1 Legal Hazards when Acting with the Customer Directly

Navetta (2011) suggested that there are four options when it comes to dealing directly with customers. The first option is to permit an organization's general employee population to interact on VSNs on behalf of the company with little instruction or supervision. Alternatively, this assigned employee population could be supervised and instructed on a professional basis. The third option might be to designate a small dedicated group to interact on VSNs on behalf of the company on "corporate profiles" not related to any individual employee. Fourthly, an organization could hire a third party marketing company/social media agency to interact on VSNs at least for the purpose of prosecuting the firm's intended marketing strategy.

2.3.5.2 Privacy Issues

Ibrahim (2008) defined VSNs as "complicit risk communities where personal information becomes social capital which is traded and exchanged" (p. 251).

Currently, privacy issues on VSNs are frequently covered and emphasized in the daily press as well as internet forums (D. Freeman, 2011; Parvin, 2010; RedOrbit Staff & Wire Reports, 2011)

A few scholarly projects have been conducted revealing existing and prospective threats to privacy associated with VSN. Gross and Acquisti (2005) were early researchers in that field, analysing privacy threats regarding personal information on Facebook accounts. According to Gross and Acquisti (2005), enough information is provided in these accounts to, for example, reconstruct the users' social security numbers. That can be associated with managers' worries, i.e. providing information that could be misused by other users or third parties. This potential infringement of privacy/security extends to the business world, fuelling managements' concern about the possibility that the information they provide about their company, could be misused by third parties.

Navetta (2011, p. 4) classified legal risks of information security issues into three categories as follows:

- (1) potential liability due to a breach of the organization's security as the result of an attack originating through the use of social media; (2) potential legal risk associated with social engineering and spoofing attacks against users or "fans" of an organization's social media presence, persona or application; and (3) legal consequences of leakage of third party confidential information as a result of social media use.

Debatin, Lovejoy, Horn and Hughes (2009) indicated that users understand current privacy issues in the context of Facebook. However, private users are still providing large amounts of personal data on platforms such as Facebook. Providing large amounts of data on the company level might be an issue when staffs are designated to maintain a company account with Facebook, since it can be assumed that they would behave in a similar fashion as they would when they are logged on as private users. That can be overcome with a social media policy, however, which is outlined in the next chapter. Facebook is further obliged to provide several governmental institutions (e.g. the police and Central Intelligence Agency) with information on request (Debatin et al., 2009). VSNs present targets for people who have dishonest motives such as data mining and phishing. Relationships, common interests, birthdates or genders can be utilized for targeted emails for phishing, for example. Interestingly, Tufekci (2008) found no relationship between users' privacy concerns and their actual disclosure of private data. In fact, due to the popularity of VSNs, users keep negotiating and dealing with the balance between expected benefits and perceived privacy risks. Fogel and Nehmad (2009) found users to be prepared to take high risks if they hoped to reap high benefits.

The interaction of members in a VSN aggregates a huge amount of data. Members discuss everything from political issues to the performance of products and services. This content can be, because it is publicly discussed, invaluable and at least as valuable for certain target groups. However, Facebook has collected this agglomeration of data and started mining the content of its website and its members' computers in order to, publish a list of products its members had bought. Consequently, Facebook encountered serious problems and has been criticized by several stakeholders (Gomez-Arias & Genin, 2009).

According to Debatin et al. (2009), the collection of data through VSNs and its utilization through third parties remain unclear. Parvin (2010) illustrated a scenario that

can be assumed to exist, though further research is needed (see Figure 3). Like an iceberg, only a small amount of ice (data) is visible; the greater part is invisible and thus users are willing to provide further data. Through the separation of these two parts data can be gathered in a subtle and unnoticed way in order to gather data for targeted advertising.

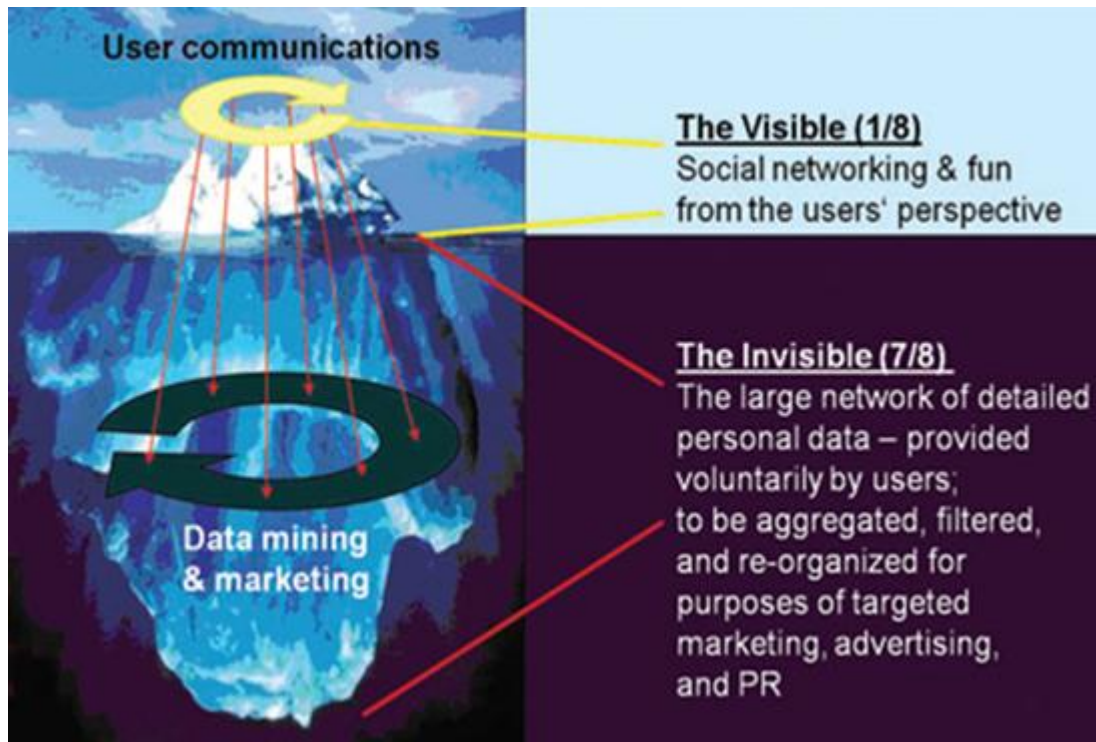


Figure 3: The Facebook Iceberg model (© Ralph A. Clevenger)
Source: (Parvin, 2010).

2.3.5.3 Identity

O'Murchu et al. (2004) claimed that a major problem with VSNs is fake identities that are complicated to monitor. Fake identities can hinder the natural evolutionary course of a VSN. Fogg and Tseng (1999) called the issue an "information credibility problem". Krishnan, Smith, Tang, and Telang (2004) stated that the main problem is that information is transferred directly between the users connected to the network. Lewis, Kaufman, Gonzalez, Wimmer, and Christakis (2008) observed another drawback in their study of Facebook. They found that the level of VSN participation and the purpose behind it varied across the members and settings, which in turn led to doubts of generalisability and hence, doubts of relevance to certain identities. Additionally, Lewis et al. (2008) observed certain network behaviours that are

dependent on socioeconomic levels as well as similar cultural preferences in demographic traits. There is therefore a wide range of governing factors which can be responsible for building different identities on different VSNs.

As suggested in section 2.3.5.2, it is advisable to introduce a social media policy to govern the professional behaviour of designated staff on VSNs. This is elaborated on in the next section.

2.3.6 Guidelines (Social Media Policy)

Brodkin (2011) found that most organizations (86%) that become active in VSNs for business purposes had been unsuccessful in adopting and/or implementing formal guidelines prior to the application of VSN tools. In addition, Brodkin found only 10% of IT departments were involved in the integration of VSNs. It seems that either the potential risks associated with VSN are misunderstood or underestimated or the actual related organizational or operational structures are not appropriately connected.

Xerox, one of the first-mover companies in regards to VSNs, created social media guidelines which require employees to state clearly the business purpose when engaging social media. Furthermore, they must acknowledge their understanding of the policy and guarantee its execution (Larson, 2009).

Generally speaking, responsible employers should implement a VSN usage policy which not only restricts access to VSNs but also reminds staff of the dangers of posting sensitive material on social networking sites (Cambridge News, 2011).

One early adopter of the use of VSNs is Intel. Their social media guidelines were published on their website in March 2010 and are reproduced below. The company has realized how influential VSNs are, and how they can be a source of knowledge for its employees. Due to its increasing commitment to VSNs, it has introduced clear guidelines for employees responsible for engaging with VSN accounts.

Emerging platforms for online collaboration are fundamentally changing the way we work, offering new ways to engage with customers, colleagues, and the world at large. It's a new model for interaction and we believe social computing can help you to build stronger, more successful business relationships. And it's a way for you to take part in global conversations related to the work we are doing at Intel and the things we care about.

If you participate in social media, please follow these guiding principles:

- Stick to your area of expertise and provide unique, individual perspectives on what's going on at Intel and in the world.
- Post meaningful, respectful comments—in other words, no spam and no remarks that are off-topic or offensive.
- Always pause and think before posting. That said, reply to comments in a timely manner, when a response is appropriate.
- Respect proprietary information and content, and confidentiality.
- When disagreeing with others' opinions, keep it appropriate and polite.
- Know and follow the Intel Code of Conduct and the Intel Privacy Policy (Intel, 2011).

Intel's rules are basic and transparent, encouraging staff to "Write and talk what you know about. Be transparent about who you are. If you make a mistake, admit it." These rules present genuine insight into the strategic and considerate approach Intel has developed to transition and turn its employees into brand ambassadors. The guidelines are aligned to the company's code of conduct. Intel is further emphasizing and justifying the utilization of VSNs by encouraging employees to use them to add value:

Social communication from Intel should help our customers, partners, and co-workers. It should be thought-provoking and build a sense of community. If it helps people improve knowledge or skills, build their businesses, do their jobs, solve problems, or understand Intel better – then it's adding value. (Intel, 2011)

Another good example is The Coca-Cola Company, which established a social media policy in 2009. There are basic common-sense rules such as, "keep records" and "don't violate others' rights" or "keep in mind that local posts can have a global significance and are permanent" (The Coca Cola Company, 2009). Due to increasing traffic on VSNs companies are increasingly identifying the need to engage with them (e.g. creating an account). Hence, more and more companies will adopt social media guidelines in the future. However, according to Taleo (2010) there are no existing public guidelines and policies for organizations in regards to VSNs. Freeman (2011) identified one of the world's first data-privacy research labs, the Privacy by Design Research Lab at the W. P. Carey School of Business. Their aim is to produce guidelines for businesses worldwide to effectively protect personal data. In particular, they focus on introducing privacy guidelines into organizations' data collection methods.

The examples above show that companywide VSN guidelines are necessary for securing appropriate use of VSNs by employees, as well as educating employees and to employ positive and brand-supporting communication. Consequently, the Society for New Communications Research published *Best Practices for Developing & Implementing a Social Media Policy* (SNCR, 2007) which covers addressing the company culture, building and sustaining trust, offering training for employees, and guaranteeing transparency without hurting confidentiality. Other areas include sticking to high accuracy standards and answering comments in an appropriate manner (SNCR, 2007).

2.3.7 Business Model

LinkedIn is publicly held and has a varied business model with revenue sourced from user subscriptions, advertising sales and hiring solutions (LinkedIn, 2011). While O'Murchu et al. (2004) found that VSNs tend to lack a solid business model, things have changed since 2004. There are paradigm examples such as Facebook which is funded mainly by advertising, i.e. Facebook is offering its website space to companies to advertise their products as companies are interested to capture the massive amounts of active members of the VSN that may see their advertisements and so, are prospective customers.

Apart from advertisements, Gomez-Arias and Genin (2009) identified buy-clubs and affiliate programs, access control (via paid membership), content aggregation (and its sale), offline events, and integrated mobile platforms as rich sources of revenue for VSN providers.

To sum up, it has been shown that few sources of revenue exist for VSN providers. However, there is a vast demand for a revenue model which could lead to the formulation of a model for calculating the return on investment (ROI). It seems that no framework exists for calculating the ROI on VSN activity, suggesting a promising direction for future research.

2.3.8 Integrity and Productivity

From the technical perspective, Healey (2011) explained that through the currently existing variety of offered media which employees can communicate with, productivity will decrease. This will continue until the most used communications channels are fully integrated in the operational structures of businesses, i.e. until hardware is fully set up (direct email integration within the system, apps and platforms fully compatible) and

employees trained up to use this technology properly . Only the minority of companies (26%) have direct email integration with their social systems, i.e. the major issue is the integration of all these new communication tools such as apps and platforms with email functionality. The need for email integration is obvious as email will remain the prevalent form of organization communications because it has been widely accepted by the market and users (Healey, 2011).

Another main issue is the blurring between using VSNs in a business context at the workplace and using VSNs for private use. Hence companies have started monitoring their staff's surfing behaviour. The City Council in Portsmouth, England, revealed that their 4,500 staff spent more than 400 hours per month on Facebook for private use. Consequently, the chief executive banned the use of any VSNs by blocking these sites via a blacklist entry, thereby following the hard line of other British employers (BBC, 2009). Goodchild (2010) revealed that 77% of employees who own a Facebook account access it during working time. Moreover, 40% of internet use during working hours is for personal matters, in particular on VSNs and entertainment sites.

2.4 Functional Use of Virtual Social Networking in a Business Context

2.4.1 Recruitment

Ellison, Steinfield, and Lampe (2007) and Helliwell and Putnam (2004) asserted that social networks facilitate the creation of social capital that in turn is associated with several positive outcomes such as enhancing employment and business opportunities. Woolcock (2000) classifies social capital into three categories: bonding social capital, bridging social capital, and linking social capital.

Bonding social capital refers to the value consigned to social networks among homogeneous groups of people (e.g. criminal groups)(Putnam, 2001), while bridging social capital refers to that of social networks among socially heterogeneous groups (e.g. a sports club) (Putnam, 2001). Linking social capital is the ability to influence “resources, ideas, and information from formal institutions beyond the community” (Woolcock & Isham, 2002, p. 23).

Benson, Filippaios, and Morgan (2010) stated that LinkedIn has been deliberately tailored to create and maintain business connections, in particular offering employment

opportunities which refers back to bridging social capital (also e-social capital) that provides resources and opportunities existing in one network to a member of another network and might help to support people to enhance their career (e.g. offering positions when expertise is wanted in a particular field) (Woolcock, 2000).

The average Facebook user is aged between 32 to 40 years and belongs to the fastest-growing age group at present. As highlighted above in section 2.2.1, this age group is a primary recruiting age range for people with mid-level experience (Sankey, 2011). Another recent study by Ma Foi Randstad found that 82% of Indian employees are self-confident in using Facebook, Twitter and LinkedIn. They assume they will be able to find a new job faster if they use these platforms (Bhattacharya, 2011). Suerth (2011) confirmed this finding by researching the usage behaviour of 500 HR professionals. Fifty-six per cent of respondents were using VSNs to recruit candidates, representing an increase of 22% in a 3-year period. More specifically, 95% of respondents used LinkedIn, while Facebook was used for recruiting purposes by 58% of HR professionals. Agarwal and Mital (2008) also confirmed that Indian students were using VSNs for gathering job prospects which indicates that HR head-hunters should expand their search for talent on these channels to check prospective candidates discreetly. This data is partly supported by reports and online studies but no indication of academic research, either in scholarly journals or on other relevant databases such as EBSCO, Google Scholar and ABIGlobal, could be found to date.

However, according to Brown and Vaughn (2011) it is currently not clear how HR professionals are using the information that they get from VSNs. A possible hazard to mention is the discrimination that may result from publicly accessible “pictures, videos, biographical information, or other shared information that often allows easy identification of applicant membership to a protected class” (Brown & Vaughn, 2011, p. 219).

In order to work against misuse of information while screening applicants, Roberts and Roach (2009) suggested that HR professionals need to become aware of this problem and develop guidelines to avoid potential negative outcomes. Nevertheless, applicant screening via VSNs seems a lot more beneficial to companies than conventional methods since VSNs present a publicly accessible platform to research prospective candidates in a short period of time and at low cost (Roberts & Roach, 2009). Another advantage is that it is possible to search for underpinning evidence for people’s

statements on résumés about experience and qualifications. Something that was not possible without VSNs is the opportunity to draw inferences on an applicant's personality through the very detailed information offered on an online presence in connection with links (e.g. membership in sport clubs, voluntary engagement or publications). This would not have been as easy or economically justifiable through traditional means. Again, the drawback is possible disqualification through negative information such as inappropriate pictures, poor communication skills, information about drug use or ill-considered remarks about former work associates which might not be evaluated in the right context and therefore might be interpreted in the wrong way and cause disqualification (Roberts & Roach, 2009). In order to overcome that, one approach might be to create policies protecting privacy while screening applicants via VSNs.

Arthur and Villado (2008) suggested the predictor method where employers relate information from VSNs to predictor constructs in terms of personnel psychology and give some implications relating to the construct-oriented approach. Nevertheless, organizations also need to be careful while taking information from VSNs about an applicant into consideration with regard to what constructs are applied and whether information is job-relevant to establish validity. Taleo (2010) emphasized that the majority of information used by HR professionals from VSNs is not job-related. Organizations should discuss candidly what information should be researched and what should be omitted or overlooked. In fact, a recent survey found that 48% of Internet users in the US aged 16 years and older were particularly worried about companies checking their actions on the Internet; 36% of these respondents stated it was not safe to say online what they think about politics in their country (RedOrbit Staff & Wire Reports, 2011). Roberts and Roach (2009) identified companies that have been using VSNs for applicant screening including Microsoft, Starbucks, Goldman Sachs and Deloitte.

2.4.2 Communications

An important factor with the increase of VSN use in businesses is monitoring, since enterprises, brands and products are always the focus of communication. Today, instead of product complaints being registered by post or phone, they are increasingly taking the form of bulletin board entries. Enterprises need to face this appearance and they should be able to react appropriately to it and hence, draw the consequences within the enterprise structure in order to adjust to it. In the context of communication, VSNs

should be understood as a sort of interactive transmitter receiver's model – indeed, this model is still in a skew situation and not fully integrated by some enterprises. On one side, it is sent too much (pointless information) and on the other side, the necessary receipt is still absent, in order to correspond also as a transmitter again, to fulfil the expectations of the prospective customers (T3News, 2011).

Ridings and Gefen (2004) provided reasons for the use and participation in online communities. The one most cited was information exchange, while the second was social support exchange (defined by the extent to which a person's basic social needs are satisfied by means of interaction with others). Palmer and Koenig-Lewis (2009) argued that the main significance of VSNs is the interaction in the community itself. Miller, Fabian and Lin (2009) defined advantages of communications via VSNs as “asynchronous, immediate, interactive, low-cost communications” (p. 306).

A practical example of using a VSN as a communications tool is the Canadian Institutes of Health Research (CIHR). Their Communications and Public Outreach division contacts Canadians regarding government-funded health research initiatives through a program called Café Scientifique, arranging and encouraging relationships between the public and experts in environments such as cafés, pubs or restaurants. People participating are required to have an interest in engaging in a conversation on certain aspects of health research. People who cannot attend physically can instead become a member of the Café Scientifique Facebook community, which currently has more than 1,000 members. In this way conceptual research ideas and their applications in the health sector are made publicly accessible. This in turn helps to build interest among people who otherwise might not get to know about the research and they are now able to participate directly in discussions about it. This communications approach insight into CIHR's work and enables relationships that would be far more demanding and costly to grow if there was no VSN (Mediavantage, 2011).

Nolan and Oh (2011) suggest that since 2003 executives under the age of 40, have been drawing heavily on VSNs to communicate and maintain their contacts with customers or business partners because they have grown up in the technology age which has seen the evolution of VSNs, as discussed in section 2.3.1.

To sum up, it can be clearly stated that businesses increasingly communicate via LinkedIn, Facebook and other VSNs and that the development of VSN use is crucial to

any communications and marketing strategy, which is elaborated on in the following section.

2.4.3 Marketing

2.4.3.1 Virtual Social Networks as an Essential Part of the Promotion Mix

Rowley (1998) classified the elements of the promotional mix as:

- advertising (any paid form of non-personal presentation and promotion of ideas, goods or services by any identified sponsor);
- direct marketing (the use of mail, telephone or other non-personal contact tools to communicate with or solicit a response from specific customers and prospects; sales promotion (short-term incentives to encouraged trial or purchase of a product or service such as discounts for access to a database over a limited time period);
- public relations and publicity (programs designed to promote and/or protect a company's image or those of its products);
- personal selling (online interactions with prospective purchasers for the purpose of making sales); and
- sponsorship (financial or external support of an event or person by an unrelated organization or donor). (adapted from Rowley, 1998, p. 384))

Marketing mainly aims to build a long-term relationship, loyalty and trust with customers as well as lasting improvements with regard to image and brand awareness. Through VSN activity, organizations can alter online contents in a timely manner, in fact faster than through virtually any other tool. This can be very important when a sales promotion goes wrong or customer reactions are not the ones desired (Kotler, 2000; Kotler & Keller, 2001).

A survey of Business Marketing Association members by online research company Ittracks Online Data Collection found that 89% of respondents were using VSNs as part of their marketing mix. LinkedIn was indicated as the preferred VSN, providing the greatest ROI for 49% of respondents, followed by Twitter (20%) and Facebook (15%) (btobonline, 2011).

According to Debatin et al. (2009), VSNs constitute an optimal data agglomeration for micro-targeted marketing and advertising, in particular through third party implemented software that tracks user behaviour such as online shopping, frequent website visits etc., and hence are a new form of invaluable potential for market research (and thus business potential). This topic will be dealt with in the next chapter.

2.4.3.2 VSNs as an Unexplored Method for Valuable Market Research

Cooke and Buckley (2008) emphasized that VSNs are a new platform providing tools for alternative market research, drawing on the rapid evolvement of VSNs and user-generated content and making it possible for the respondents of market research not only to interact with the researcher but also each other (e.g. through forums, threads or chat features). This in turn enables the building of new research communities more in the sense of participatory panels rather than just interviews.

The first online advertisement system able to track user behaviour, e.g. online shopping, became available in 2007. Called “Beacon”, it makes the personal information of private users available to companies in order for them to target their advertising. Although profitable from the company perspective, it violated Facebook’s privacy policy and thus did not increase public trust in the Facebook privacy policy. A lot of media attention ensued. Facebook has been regularly charged with accusations of abusing the privacy rights of private end users ever since (Debatin et al., 2009).

Search engines are part of the online world and, additionally, they are regarded as valuable and reasonable sources for market research; they are therefore discussed in the following section.

2.4.3.3 Search Engines

When an enterprise maintains several profiles on different VSNs, in an ideal case it builds up trust with other users (i.e. stakeholders). The more a brand is spoken about, the more links the organization receives within social media, positively as well as negatively. VSN accounts/profiles and VSN contents also appear in search engine results in the upper ranks. For instance, the search engine Google offers the possibility of sorting search results by pictures, videos, blogs, VSNs and discussions, indicating corresponding trends (Weber, 2009). As stated earlier, maintaining accounts with different VSNs is time-consuming and consumes company resources (Boyd & Ellison, 2008). However, interesting and regularly updated contents on VSN profiles of an organization in combination with the possibility for the customers to interoperate by presenting their own contents and taking part in competitions would lead, ideally, to users visiting the organization’s VSN profile on a regular basis. This could be accompanied by recommendations by customers and hence traffic on the VSN profile would rise. By providing additional links to other destinations such as another VSN

profile, an organization's website or an online shop the user traffic would also increase (Brusha & Whalen, 2009).

As mentioned in section 2.3.4.1, companies' efforts to utilize VSNs can increase traffic and therefore trigger customer talk on the platform or in the real world. This can have an impact on the companies' success, which is discussed in the following section.

2.4.3.4 Electronic Word-of-Mouth

According to Rodriguez-Ardura, Martinez-Lopez and Luna (2010), word-of-mouth (WOM) is a fruitful marketing instrument, especially in the context of VSNs as it is primarily concerned with communication and relationships (Beer, 2008). Palmer and Koenig-Lewis (2009) stated that marketers need to approach certain communities to spread WOM and gain information about purchasers' demands and favourites. Further, marketers need to be careful while trying to influence a certain community. If it is controlled by its members and the seller intends to take over control, the entire community can turn angry. When a community becomes controlled by a marketer, the whole benefit of getting information from the community gets lost and things return to one-sided communication channels (from marketer to purchaser) (Palmer & Koenig-Lewis, 2009). Figure 3 shows Palmer and Koenig-Lewis's (2009) model of direct marketing in the VSN context, involving the producer/marketer, the customer/purchaser and the community. The crosshatched area is the traditional approach. The shaded field represents the triadic interaction between all three: marketer, purchaser and community. Palmer and Koenig-Lewis (2009) argue that using a VSN as a platform to harmonize the demands of the purchaser, marketer/producer and community can help to promote the purchaser's experience. In turn, if the purchaser gains good experience with the marketer/product/service, he/she will spread positive WOM recommendation quickly, easily and without huge expense (there is no traditional one-sided sales promotion channel). In case of a bad experience, it is the marketer's task to limit damage (e.g. reputation).

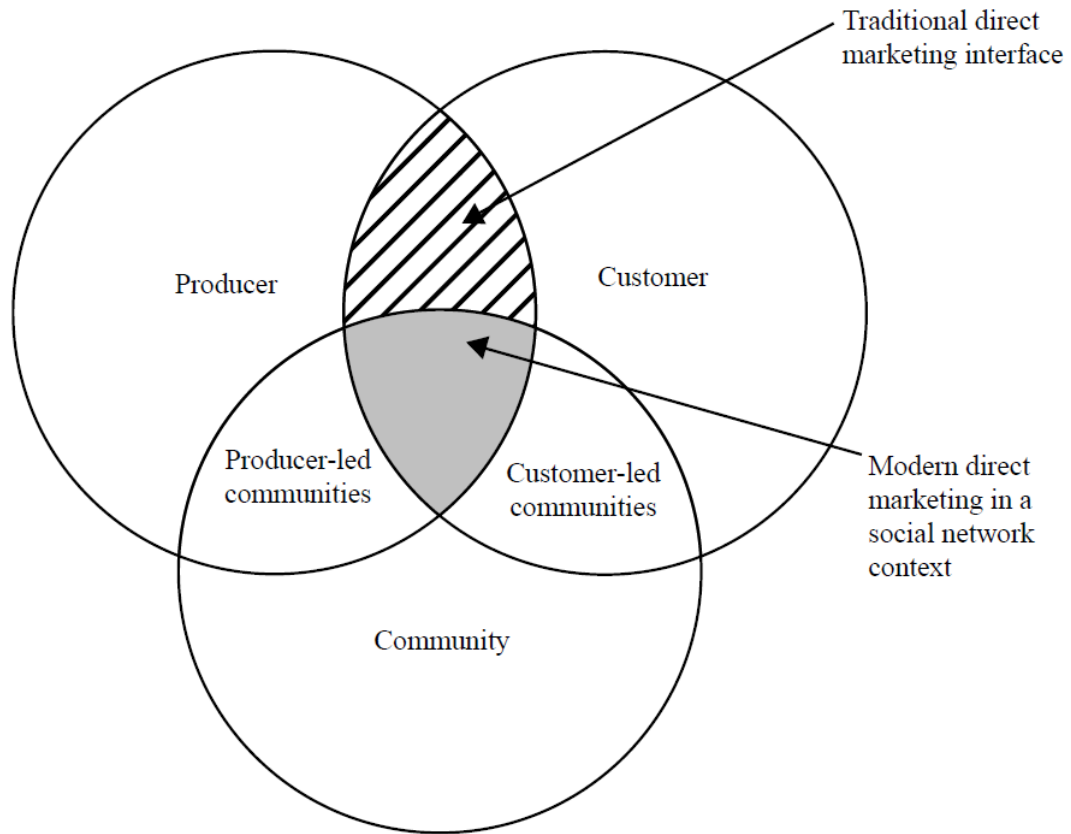


Figure 4: Direct marketing in a VSN context

Source: Palmer & Koenig-Lewis (2009, p. 163).

Kotler and Armstrong (1993) argued that companies need to decide how they will communicate with different parties and what kind of message they want to transmit. They need to be clear and agree on it at each level of hierarchy. That is crucial in the context of VSN. Interestingly, Amichai-Hamburger (2002) and Maldonado et al. (2001) have found that introvert personalities spend long hours on the internet whereas extroverts spend comparatively less time. Additionally, Acar and Polonsky (2008) suggested that introvert personalities prefer computer-mediated communication whereas extrovert personalities favour face-to-face communication.

Jansen, Zhang, Sobel and Chowdury (2009) analysed the content of 150,000 postings on corporate accounts on the micro-blogging service Twitter (introduced 1996) and found nearly 20% showed experiences with brands, which they called “sentiments”. Sentiments are the expression of opinions relating to a brand, company, product or service which can be either positive or negative (Glaser). Of Jansen et al.’s (2009) total experiences, 50% were positive and 33% negative about the product/service/company.

This shows how powerful a posting can be as WOM marketing tool, especially in regards to viral marketing campaigns and customer relationship management. Duan, Gu and Whinston (2008) found that quality of a product/service may have positive impact on producing positive electronic WOM. In contrast, many negative postings would cause negative electronic WOM and make it problematic for a marketer to get over the product/service's bad standpoint in the industry. These findings confirm Reynolds and Darden's (1971) conclusion opinion leaders have vast influence on attitude and behavioural changes for opinion seekers, especially on their decisions about buying new products.

2.4.4 Distribution Channel

Many organizations see another distribution channel option in VSNs, e.g. the implementation of a shopping cart or the "Buy-Button" on Facebook or other VSNs. However, a study by Forrester Research and GSI Commerce analysed data from online retailers between 12 November and 20 December 2010 and revealed that VSNs do not usually lead directly to an online purchase (2%) (ecommercefacts, 2011). Interestingly, however, VSNs are more effective with short-term deals (special offers with limited lifetimes), leading to 5–7% direct online purchase. Generally, the study found that email and search advertising are the prevailing methods to turn Internet users into direct buyers (ecommercefacts, 2011). The pioneering VSN "Multiply" is an outstanding example of distributing products via a VSN (Multiply, 2011).

2.4.5 Customer Service/Relationship

Customers have turned into highly active cohorts. Through the nodes on different levels customers serve as customers but also they might serve as producers for another node (e.g. Youtube) and again as retailer for another node (e.g. eBay) or as critical reviewers (e.g. through Feedback on Amazon or TripAdvisor) whilst solidly connected with a network of other customers. The examples could be continued. Through information exchange and knowledge-sharing, a huge amount of information, which is called user-generated content, becomes available on brands and products which can multiply in a positive sense. However, it can also interfere with the brands' marketing messages and make it even more difficult to control brand images and relationship outcomes as stated by Hennig-Thurau, Malhotra, Frieger, Gensler, Lobschat, Rangaswamy and Skiera (2010).

2.4.6 Employee Engagement

Lackner (2011) suggested utilizing VSNs to increase communication between employees and communicate more effectively with employees in general, i.e. keeping them engaged and informed in a timely manner. Through an increased employee engagement by means of VSNs companies can build and improve the internal brand, build loyalty, and make staff always conscious of the organization's mission statement. Through repetition of the mission statement, employees might get involved in supporting the company and brand with their hearts and minds as they become aware of why they use VSNs and they might develop pride in working for their company. Further, it is crucial to build up internal networks to encourage and strengthen both effectiveness and efficiency in the accomplishment of daily tasks and processes. VSNs can help to increase employees' capacity to make new contacts and raise collaboration within the organization. This, in turn, can encourage brainstorming, teamwork and innovation. Steinfield et al. (2009) assert that the effort to encourage engagement among employees on VSNs helps sustain existing relationships and strengthen developing ones.

2.4.7 Product Development/Innovation Management

Götzl (2002) stated that VSNs provide a framework for the exchange of knowledge between like-minded members who are searching for information or requesting other members' expertise and experience that is purposed towards the creation of R&D/new product development across borders. A significant advantage of this knowledge exchange on VSNs is the substantial reduction of risks as members draw from knowledge, experience and the mistakes of community members and thus pass on lessons that have been learned. This eases the process of learning across borders through active constructive dialogues on past and current issues related to product and innovation management shared in similar industry sectors. The aim is to increase the chances of successful development and launch of products and services (Götzl, 2002).

2.4.8 Public and Investor Relations

Rybalko and Seltzer (2010) investigated how Fortune 500 companies use the VSN Twitter to build relationships with stakeholders via content analysis of dialogic communication. They found that 61% of the sample used Twitter for dialogic communication – 39% were classified as non-dialogic. The companies using the dialogic-communication approach employed the principle of conservation of visitors to a greater degree and generation of return visits to a lesser degree than companies with a

non-dialogic approach. Principle of conservation of visitors means that VSN users are sought to be inspired to that degree, that they stopover and halt on a certain web page. Subsequently Caskey, Minnis and Nagar (2011) developed a model of company information dispersion for prospective investors linked together on a VSN. Since investors have preferences, information can initially reach only a fraction of all investors. The remaining investors get the information through the investor network. This provides clarity of investors trading patterns and the following price reaction after information disclosure. Investors, who are key players in defining the price response after disclosure and investors, who have the ability to approach those prospective investors, become critical. These sorts of VSNs are important for spreading messages and reaching new investor audiences. Marbach (2010) thinks that a VSN such as LinkedIn could take the chance one day and offer a platform for management to interact with prospective investors online. LinkedIn already maintains a page for investor relations to serve existing and prospective shareholders with financial reports, stock lookups and relevant information such as investor events in order to provide transparency and promote their performance (LinkedIn, 2011).

2.4.9 Competitor Analysis

Ryan (2011) introduces a social media tool called “Four”, which uses monitoring and manual analysis to investigate the current competitor landscape for prospective clients and industries. Four evaluates the impact of VSNs across the twin metrics of “impact” (percentage of relevant audience directly or indirectly influenced by activity) and “engagement” (extent to which these audiences are influenced), analysing online conversation for multiple search terms. It is backed up by a database going back to 2007. Apart from automated monitoring, the tool can also be used for manual analysis to investigate “trends, areas of specific interests, keywords, search performance, sentiment, who the key influencers are talking about a brand, with whom they share information” (p. 52).

2.4.10 Brand Engagement/Brand Awareness

Relations with brands are increasingly built up by the brand experience – in particular by consumers – in social media. Positive WOM communication and interaction with customers is a good way of promoting the brand because the name recognition of the product/service rises. Social media is suited to viral marketing, which is online WOM. Social media allows knowledge of products to become virally widespread because recommendations and links, mostly from friends and friends within the networks, are

passed on voluntarily and therefore classified as trustworthy. Nevertheless, viral spreading occurs not only between friends, but also often by unknown third parties (Merisavo, 2005). Innovative companies such as NetBase are able to excavate VSNs to find out how consumers are feeling about different brands, i.e. what kind of relationship and attitude they have towards a particular brand, via its self-developed BrandPassion Index that analyses the intensity of customer passion for a product, taking into account content tweets on Twitter or posts on Facebook where customers tend to provide their most honest opinions (Bloomberg Businessweek, 2011). VSNs can be used for customer satisfaction analysis, which is elaborated on in the following section.

2.4.11 Customer Satisfaction Analysis

García-Crespo, Colomo-Palacios, Gómez-Berbís and Ruiz-Mezcua (2010) explored the customer-relationship management on VSNs and introduced a software tool called “SEMO” that analyses customer opinions and their emotional implications. Because it Considering not only possible communication between customers but also between customer and company, there is a great potential to collect data from SEMO, edit the data and – even more significantly – convert it into current and future marketing and product/service strategies or new product development. A company is also able to get quick feedback on currently available products and services and may react accordingly to positive or negative expressions (e.g. make improvements if necessary).

2.5 Conclusion and gap in the literature

This chapter has covered the main aspects that could be found when researching the field of VSNs in the business context. It began with a general definition of VSNs, analysed the status quo of VSNs in the business context, and covered their history, business models, guidelines and hazards. Light was also shed on the functional use of VSNs in business. Recruitment, marketing and investor relations were identified as the key drivers for businesses to become engaged with VSNs.

After reviewing the literature thoroughly and surveying how companies can utilize VSNs for their business purposes, a gap in the literature was identified. There are numerous VSNs with different structures targeting different people, all with different features and benefits. No existing study has researched and classified VSNs according to their purposes and target groups. The researcher will attempt to fill this gap in the literature by offering a simplified framework to classify currently existing VSNs. This framework is presented in next chapter.

Chapter 3: Suggested Framework of Classification of VSNs

As the previous chapter showed, no existing study has researched and classified VSNs according to their purposes and target groups. In this study the VSNs included in the survey questionnaire were classified into social VSNs and business-oriented VSNs, according to their original purpose. Data for the study have been taken from the actual VSN websites and from the data a framework to classify VSNs has been derived, which is shown in Figure 5. Each element is explained in detail below.

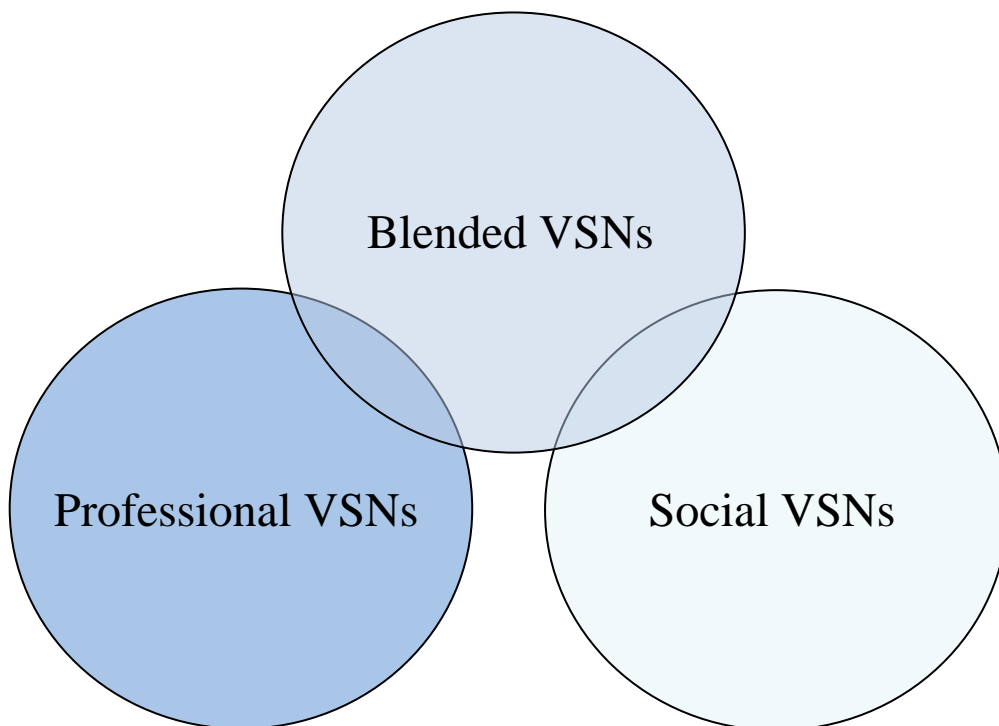


Figure 5: Suggested framework for classification of VSNs

3.1 Public Professional VSNs

Public professional VSNs are solely business related and are mainly used for professional networking. To illustrate the features and characteristics of public professional VSNs, a real-life example will be considered. LinkedIn is the biggest professional network with 120 million members (as of August 2011) in around 196 countries and is available in nine languages. LinkedIn accommodates members from all 2011 Fortune 500 companies. The company has corporate hiring solutions that are used by 75% of the Fortune 100 companies. Approximately 2 million companies have a LinkedIn company page (i.e. account) (LinkedIn, 2011).

This allows professionals to build up their circle of business partners they know and trust through a “gated-access approach” which requires a pre-existing relationship or an introduction of a mutual contact to make a new contact. Further, members can search for people within their network. Members can get put in touch with other prospective business partners through an introduction via a mutual contact. A circle network is created comprising of direct connections, the connections of the members’ connections (second-degree connections), and also the connections of second-degree connections (third-degree connections). A professional VSN can be used to look for jobs, people and business opportunities, also via recommendations from one’s contacts. Businesses can list their product and service portfolios on their company page with LinkedIn, and at the same time allow members to give feedback on the products.

A second main feature of LinkedIn is job advertisements by registered employers – they can also search for candidates themselves. The prospective applicant, in turn, can apply with his or her LinkedIn résumé, i.e. basically his account. Apart from that, members can follow companies and subscribe to job offers and newsletters. Users can also save jobs they are going to apply for.

A third main feature is interest groups, which members can register for. They are mostly business-related and cover employment and industry issues and are moderated by a group owner or designated moderators.

To sum up, professional business networks allow professionals to present themselves online in order to create relationships, knowledge, groups, events, and business through company profiles and product/services portfolios, and jobs through corporate hiring solutions (Vanover, 2009).

3.2 Public Social VSNs

Public social VSNs are solely socially-oriented and they are mainly used for networking among friends, family and co-workers in a personal way. To illustrate the features and characteristics of public social VSNs, a real-life example will be considered. Facebook is the biggest public VSN with 800 million members (as of October 2011) around the globe; it is available in 70 languages (Facebook Statistics, 2011). Facebook defines itself as a “social utility that helps people communicate more efficiently with their friends, family and co-workers” (p. 1). It uses advanced technologies that enable the

distribution of information via a social graph, a digital mapping of members' social connections (Facebook Factsheet, 2011). In contrast to the public professional VSN, anyone can create an account for Facebook and network with people they know or do not know in a public environment. Members may add personal interests, contact and other personal information as well as upload photos. Members can communicate with direct contacts and other members through private or public messages (on a wall) and a chat feature. They can also create and join interest groups and "like" pages, some of which are maintained by organizations as a channel of advertising and recruitment mainly.

3.3 Public Blended VSNs (Social and Professional)

Public blended (social and professional) VSNs combine the characteristics of public social and public professional VSNs. A prime example is the VSN Ning, which offers a paid service that allows their 90,000 customers to create their own community network according to their own needs and tailored to their own services. Customers can create their own page layout. A wide range of diverse types of communities, organizations and businesses use Ning. They include sports teams such as Manchester United and India Premier League cricket teams, music bands such as Linkin Park and Staind, as well as non-profit organizations like the Diabetes Hands Foundation's TuDiabetes (Ning, 2011). Ning combines creating tailored social websites around specific interests and needs serving particular member bases with business features by combining marketers, influencers and activists, thereby creating an inspiring social experience (Ning, 2011).

3.4 Implications

By referring to this framework managers can decide which VSN group they want to enter and can then create guidelines for staff in charge of the corporate VSN account, in order to avoid such problems as productivity loss or data leakage. The managers' decision needs to consider the purposes the organization wants to target through VSNs. For example, organizations targeting information purposes might be more successful on Social VSNs (as found and elaborated in chapter 5). The targeted benefits and targeted contacts are also crucial and to be considered before entering the field of VSNs.

3.5 Chapter Summary

This study aims to close the gap in the literature identified in Chapter 2 by investigating which business features of VSN are practicable and well understood in the real world. The framework presented in this chapter is designed to help answer this study's second research question, i.e. how organizations can make use of VSNs in a constructive way for commercial purposes. The classification of VSNs outlined here will enable the identification of the "right" VSNs for businesses, in accordance to their mission statement and aims. The next chapter describes the methodology of this study.

Chapter 4: Methodology

4.1 Introduction to the Chapter

This chapter describes how the study was conducted. It begins with the research objectives and then outlines the survey questionnaire before finishing with a discussion of the study's limitations.

A web survey was chosen as a cross-sectional designed research strategy to deliver both qualitative and quantitative data. However, only quantitative analysis was carried out solely in order to answer the study's first research question, which is concerned with the state of corporate VSN use to date.

4.2 Problem Statement – Sampling

In order to identify an appropriate sampling method for this project, the theoretical groundwork was laid according to Bryman and Bell (2007) and Weiers (2008). Sampling methods can be divided into two parts: probability sampling and non-probability sampling.

Probability sampling provides unbiased sampling – it represents the whole population as each individual in the population has a non-zero chance to be chosen for being included in the sample. Predictions based on this sampling method provide a research project with firm reliable conclusions and its results can be statistically generalized. Probability sampling types include simple random; stratified; systematic; and cluster. The researcher needs to have available lists of all items of interest (population items) when using simple random, stratified or systematic. When using the cluster method, the researcher needs to have available a list of all clusters.

Non-probability sampling does not provide the conditions for unbiased sampling as items of interest have unequal chance of being selected and therefore biased sampling is presented. The samples do not represent the whole population and there is a possibility of drawing wrong predictions and conclusions from the results. Non-probability sampling types include convenience sampling; quota sampling; purposive sampling; judgement sampling; and snowball sampling. Convenience sampling is used when participants are perceived to be easily available and willing to participate (see below).

Quota sampling uses a population that is divided into layers. Purposive sampling represents members that are not typical of the population while judgement sampling is selects members who the researcher believes are representative for the research. A snowball sample is one “in which the researcher makes initial contact with a small group of people who are relevant to the research topic and then uses these to establish contact with others” (Bryman & Bell, 2007, p. 732).

The researcher decided to use non-probability sampling since there was no list of all available items of interest available, i.e. no list of employees in organizations who have been using VSNs. The researcher is aware that a non-probability sample can generate biased results but it will be used as the first approach – as a pilot study. The researcher is aware of the advantages and disadvantages of the available sampling methods and accepts the chosen framework and works within it.

4.3 Research Objectives

This study has two main objectives. The first is the completion of an extensive literature review covering multiple aspects of social networking (Chapter 2). The second objective is to assess the current usage of VSNs in companies, i.e. the state of corporate VSNs use to date, by focusing mainly on descriptive statistics, i.e. summarizing and describing data that have been collected (Weiers, 2008). A questionnaire was developed and sent over the internet to 337 employees in order to analyse the current status of usage of VSNs from the employee perspective. Analysis and discussion of the survey responses will shed light on how organizations can make use of VSNs in a constructive way for commercial purposes.

4.4 Subjects, Participants and Procedure

The participants in this study were 337 employees between the ages of 20 and 65 from around the globe, with the majority based in New Zealand. The data was sourced from a non-probability sample, via means of a hybrid of convenience sampling and snowball sampling. The choice of a hybrid method is justified below in section 4.8.

Of the 365 people who were approached, 337 completed the survey for a response rate of 92.33%. Participants were approached and asked to complete anonymous surveys in

several targeted VSN groups on LinkedIn, Xing and Facebook. The survey was approved by the institutional Ethics Committee, AUTECH, on 8 June 2011 (ethics approval number 11/81) and was conducted in a manner consistent with the ethical principles outlined by AUTECH. A questionnaire was conducted in order to answer the study's two research questions:

1. What is the state of corporate VSN use to date?
2. How can an organization make use of VSNs in a constructive way for commercial purposes?

The questionnaire was conducted to determine which organizations use which VSNs and for what purpose. It was programmed and made available online through an online questionnaire service called Lime Survey, and it was disseminated through links on the following three VSNs: <http://www.facebook.com>, <http://www.linkedin.com> and <http://www.xing.com>. Lime Survey allowed the researcher to craft questions and structure the questionnaire in the format considered appropriate. The questionnaire was available for completion online for two months. The questionnaire is located online at <http://www.regber.eu/survey>. It was publicly available to everybody. This location was chosen in order to ensure a safe collection of data as well as to maintain confidentiality. The researcher declined the option offered by Lime Survey to store collected data online due to security reasons. The objects of observation were organizations of various types and industries. The aim was to capture 1,000 participants that were chosen based on the criteria of being employed with an organization, regardless of job position, aged between 20 and 65. Therefore a selected subset (sample) was chosen from the people that were approached – the data of participants who did not fulfil the criteria were deleted. As noted above, the total response was 367 (30 had to be deleted).

The questionnaire put forth 20 questions in total, structured in four groups encompassing multiple choices, dichotomous and open-ended questions. The first group were general questions regarding the participant, his or her position in the company, age and the industry he or she works in. The second group of questions clarified whether users are generally open to the use of VSNs; whether the organization they work for permits and encourages the use of internal and external VSNs; and whether it maintains a VSN currently. Depending on their answers the participants were directed to either specified user questions or analytical questions about why they do not use VSNs.

Specified user questions covered the frequency of updating accounts, length of time using VSNs, and the existence of any guidelines for using the account.

After crafting the questionnaire it was disseminated through the three VSNs named above via a link on Facebook and via personal invitations on Xing and LinkedIn. The message/link on all three VSNs included an option for everybody who received or saw it to forward it to their acquaintances in order to achieve the target of 1,000 respondents.

4.5 Variables

The variables applied were solely qualitative ones such as attributes or categories (e.g. yes/no, job position, age range) which were coded in the analysis (raw data) (see Appendix 1 for the coding). Coding was applied since it assigns variables into groups. Each code represents a question in the survey, and numbers were assigned to each of the answers (1, 2, 3 etc.) in order to make them distinct and a consistent pattern. This enables efficient analysis of quantitative data using computer software which will be elaborated on in section 4.8 (Bryman & Bell, 2007).

4.6 Sample Characteristics

As described above, the survey was carried out by means of the freely available software Lime Survey questionnaire generator tool. The software was installed on the author's private web server in order to not disclose data to publicly available survey websites such as SurveyMonkey. The data was hosted in-house to protect privacy. The system automatically generated an URL which was sent out to the target group. The target group were friends and acquaintances who fitted the criteria outlined above. They were approached on the three different VSN platforms via invitations on their profile walls. The researcher also registered on diverse social media interest groups on each of the platforms and asked the members of these groups to fill in the survey. The interest groups accessed and used included:

Facebook: Social Media Relations, Network Marketing Pro, Socialmediaevolution, Business Network Australia, Malaysian Business Network, Korea University Business School, EWB New Zealand

LinkedIn: Social Media Club Auckland, AUT University, Social Media Marketing, Social Media Today, Future Social Media, Social Media for Non-Profit-Organizations

XING: Luxury Social Media, Global Business, Media Publishing, Social Media Marketing, Social Media United, Social Media Lounge

When interest was shown, the URL (link to the web questionnaire) was provided. The volunteer participants were asked to pass the message on to their acquaintances and others of similar profile (snowball sampling). While the system allowed the survey administrator to see who had submitted a response, the response could not be related to the respondent. Participants were informed of this safeguard to their anonymity before clicking on the “Submit” button in the Consent Form before starting the questionnaire and, additionally, on the last page of the questionnaire.

The questionnaire consisted of a total of 20 items, including one filter question, and was divided into four main parts (Parts A to D). Part A elicited general background variables, such as age, job position, industry and size of organization in five questions. Part B was essentially a filter option in order to clarify whether organizations used VSNs or not. Furthermore, it established whether the respondents were permitted to use VSNs at work at all, which VSNs they mainly used, and whether the organization had an account with any publicly accessible VSN over the space of four questions.

If participants answered “yes” to using VSNs in the workplace they were forwarded to Part C. Part C, as the longest and most crucial part of the questionnaire, was implemented to determine the usage of VSN from regular users (filtered only for respondents who stated that they had been using VSNs for business purposes). It can be fully viewed in Appendix 1. In the first question in Part C respondents were asked how long their organization has had their account for in order to clarify how long they have been dealing with VSNs in any way. The second question aimed at revealing the purposes for which the organization had been using VSNs. The third question established who the organization aimed to reach through VSNs and the fourth asked for the frequency of updating the organizations accounts within a VSN. The fifth question asked whether the organization had any social media guidelines for employees who are in charge of managing an account on any VSN. The sixth question aimed to find out any benefits employees saw related to using VSN in any sense of business.

Part D was created for users and non-users equally and was intended to reveal whether participants (independent of using or not using VSN for business purposes) saw any surplus value of using VSN for business purposes. Further, they were asked what reasons they encounter for not using public VSNs from the perspective of the organization they were working for. The third question revealed whether the respondents had discussed the use of VSNs for business purposes within management. Subsequently, the questionnaire asked whether the organization was planning to use VSNs in the near future. Lastly, the respondents were asked to suggest improvements or additions that would have to be made in order to make organizations use VSNs for wider business purposes.

4.7 Questionnaire

4.7.1 Demographics

Demographic variables identified and included in the survey were the participant's age (years in grouped ranges), organization size, industry, job level (position) and type of organization the participant was working in. These variables are analysed in section 5.2.1.

4.7.2 General Cohort

Size of organization: Participants were asked what size of organization they worked for with choices of sole trader (1 to 5 employees), small-to-medium sized enterprise (6 to 50 employees) and large-scale enterprise (more than 50 employees).

Industry: Respondents were asked to provide information regarding which industry they were involved in and they could choose from a list of 134 industries (see Appendix 1). These industries were classified into 17 categories in the analysis, according to the New Zealand Industrial classification standards ANZSIC 2006, published by Statistics New Zealand (Statistics New Zealand, 2011).

Type of organization: The third cohort aspect covered the question of what type of organization participants worked for. The multiple-choice options were: publicly-held company, privately-held company, non-profit organization, business partnership, individual enterprise or freelance.

4.7.3 Usage of Virtual Social Networks

Firstly participants were asked whether they used any publicly accessible VSN for business purposes in connection with their job (yes/no).

Secondly they were asked which VSN they mainly used at work; they could choose from the 28 most popular VSNs based on a review of the top ten VSNs (the list was, however, slightly altered – a few VSNs considered important were added) (TopTenReviews, 2011).

Thirdly, participants were asked whether the organization they worked for officially permitted/encouraged the application of any VSN for business purposes (yes/no).

Fourthly, respondents were asked whether the organization they worked for had an account for any publicly accessible VSN (yes/no).

In cases where the third question was answered with “yes”, participants were directed to Part C, “Specified Questions to Users”, otherwise they were directed to Part D, “Users and Non-users of VSN”.

4.7.4 Specified Questions to Users

Firstly, users were asked how long their organization had had the VSN account for: “up to one year”, “one to three years” or “more than three years”.

The second question asked about the purposes the organization used the account for (see Appendix 1, Question 11 for all listed purposes).

Thirdly, the population was asked who their organization was aiming to contact through the medium of VSN and were given multiple options as follows: suppliers, potential customers, existing customers, employees, other branches (e.g. overseas), and team members, others (free-text field).

Fourthly, respondents answered regarding frequency on updating their account and could choose from hourly, daily, weekly, fortnightly, monthly, never.

Fifthly, participants were asked whether a social media policy or other guideline existed for employees who were in charge of VSN activities (yes/no).

Lastly, respondents were asked for their personal views on VSNs as a beneficial business tool and could choose from: provide a quick way to communicate, promote

informal communication, help build friendships and strengthen relationships, knowledge sharing, and collaboration among employees, others (free-text field).

4.7.5 Users and Non-users of VSN

First of all, the participants were asked whether, from the organization's perspective, he/she thought that public VSNs could be used seriously for business purposes (yes/no with reason).

Next they were asked for the reasons for NOT using public VSNs from the organization's perspective (see Appendix 1, Question 17 for all multiple answer options).

The third question asked whether their organization's management had discussed using public VSNs (yes/no/I do not know).

Fourthly, the participants were asked whether their organization was planning to use public VSNs in the near future (yes/no/I do not know).

Lastly, respondents were provided a free-text field to state what kind of improvements would have to be made to VSNs for them to consider using them for wider business purposes.

4.8 Justification of the Research Methodology

The justification for targeting 1,000 people for this survey is outlined below. A sample of 1000 people would guarantee a representative sample from which to deduce the outcome for the whole population. The sample of 337 people obtained, while not meeting the target, seems sufficient to the researcher to derive significant tendencies.

A web survey was chosen as the appropriate data collection method since that method asks questions of different kinds in a questionnaire to self-complete whenever the participant is able to do it. Structured interviews have not been chosen due to the fact that people would meet just on one occasion and the results would therefore be dependent on one meeting. They were regarded as more risky than a questionnaire spread through the internet to participants who could fill it in according to their own convenience. The survey offers a cross-sectional design that can capture qualitative and quantitative data (both were collected in the survey although only quantitative data has

been analysed) to identify patterns of association. Another main advantage is the opportunity to apply causal study, i.e. explore relationships between variables, which is carried out in section 5.3 using cross-tabulation via the Statistical Package for the Social Sciences (SPSS). SPSS is a program used to analyse quantitative data and chosen for this project since solely qualitative data has been analysed (Bryman & Bell, 2007).

The descriptive statistics have been measured by percentages and the level of significance found by calculating the standard deviation, which is a measure of dispersion around the mean, calculated as the positive square root of the variance r from grouped data gathered from raw data from the survey results (Bryman & Bell, 2007; Weiers, 2008).

From the perspective of business statistics, a sample is a subset of a population. In this study, the actual population is very large, which in turn makes a census of all the values in the population impossible. Consequently, the sample represents a subset of practicable size ($n=337$). The sample was collected and descriptive statistics were calculated. The aim is to extrapolate and draw conclusions from the sample to the population. Inferential statistics are carried out to a limited degree. Non-probability sampling, specifically convenience sampling, was chosen because the potential participants were readily available (friends, acquaintances and business contacts) and the researcher assumed that they were willing to participate (Weiers, 2008). It was also chosen because limited funds were available for this study.

Due to the small scale of this study, it is essentially a causal study to identify relationships between variables and whether variables are affecting each other. However, statistical techniques are not appropriate to verify causality – it needs to be observed in the entire context (Weiers, 2008).

At the same time, however, this study can be regarded as a hybrid of an exploratory study and a causal study. The exploratory aspect here is to understand VSNs in the business context and identify the main variables in order to make recommendations for a successful implementation of VSNs into business life (Weiers, 2008).

The study is based on primary data generated by the researcher by means of an online survey. The process required considerable time and incurred costs (server maintenance and domain provider) (Weiers, 2008).

In this study, a sample has been chosen instead of conducting a census and hence sampling error is inevitable. Sampling error is random and non-directional and cannot be measured when non-probability sampling is used (in this case, convenience sampling). Sampling error can only be measured exactly when probability sampling is used (Weiers, 2008). Due to conditions of the study, the researcher cannot claim any statistical significance for the results.

Snowball sampling is another technique of non-probability sampling (Muhib et al., 2001) and was initiated by the researcher sending messages to his associates. They were asked to forward them also to their associates. As noted above, posts were also posted on the three selected VSNs, especially in interest groups to increase the participant count (Weiers, 2008). The sampling method was therefore a hybrid of convenience and snowball sampling.

Users and prospective users of VSNs in the business context could be found on VSNs themselves, as suggested and applied by Browne (2005). The researcher therefore decided to approach people who might meet the criteria via VSNs. Acquaintances, friends and business contacts that were assumed to be representative for this study were approached and asked to spread the message among their contacts. People that were not known to researcher could then also involved in the survey, as in Biernacki and Waldorf (1981). In this data could be gathered in a reasonable time period for reasonable costs from a sample that would have been difficult to identify from the whole population if random sampling was used (Biernacki & Waldorf, 1981; Salganik & Heckathorn, 2004). However, it should be noted that this technique may not lead to representative data and can produce inaccurate or biased results since the participants might not deliver actual trends (Salganik & Heckathorn, 2004). In order to minimize this hazard, the researcher decided to apply a hybrid of techniques (convenience and snowball sampling).

In order to find correlations or causality between variables, particular variables have been cross-tabulated in section 5.3. Cross-tabulation (also contingency table) is a data analysis technique that “shows how many items are in combinations of categories” (Weiers, 2008, p. 43). In order to check for statistical significance (which is not claimed at any time in this study), the Chi-square test has been applied as test of variable independence. Usually this test is used to verify confidence in results to be generalized from a probability sample to a population (Bryman & Bell, 2007). Since the sampling in

this study is a hybrid of convenience and snowball sampling (i.e. non-probability sampling), the results cannot be generalized and no claim for external validity can be made.

As noted above, qualitative content analysis, which emphasizes the meaning of text constructs rather than countable data, has not been carried out.

4.9 Limitations

This dissertation is primarily concerned with VSN sites. Other instruments of social media such as blogs or media-sharing sites are outside of the scope of this study. The analysis has concentrated on targeting employees up to senior management level since the researcher is aiming to capture their perspectives.

One weakness of the demographic data collected for this study is the missing question of territorial belonging, i.e. the continent or the country the participants are in. Another limitation is the relatively small sample ($n=337$). While the target was 1,000 participants, only one-third of this total was achieved due to restrictions in time and budget. In addition, snowball sampling can produce biases and possibly inaccurate results (Weiers, 2008). Hence, a claim of statistical significance for this project cannot be made.

Further, there has been data missing, which has been overwritten due to an overwrite error caused by SPSS. The error in detail was in question seven of the survey when participants were asked which VSN they are mainly using at work. Two of the selectable VSNs were LinkedIn (option 5) and LinkExpats (option 24). Both the VSNs have got the same first 5 letters in their name. SPSS could not process that condition properly and caused that the data that was collected for LinkExpats overwrote agglomerated selections of LinkedIn. These missing values could not be used. Nevertheless, parts of the data have been recovered. Because of the miscoding of this major professional site (which was overwritten by results for another VSN) the researcher, based on restored data, had to guess which ones would have been selected on that site, based on other information, and had to err on the side of caution. Therefore there is the suspicion that some participants were classified as Social/Blend when they actually belonged to Professional or Professional/Social (refer to chapter 3 to see theoretical framework). To sum up: Social and Blend are overestimated (overcounted)

and Professional and Social/Blend are underestimated (undercounted) which could possibly be a limitation from a statistics point of view.

Qualitative data was collected but not analysed – analysis of this data is planned for early 2012.

4.10 Chapter Summary

This chapter provided a brief explanation and justification on the applied research methodology for this project, namely quantitative analysis, and outlined descriptive and inferential statistics.

Chapter 5: Findings

5.1 Introduction to the Chapter

This chapter presents the findings of the study. The analysis was mainly conducted using Microsoft Excel and SPSS. Firstly, descriptive statistics is carried out. Demographics have been figured. They accommodate age, organization size, industry, and job level and organization size. Subsequently, frequencies have been presented for each valid question from the survey that could be analysed for frequencies.

In the second part of this chapter, VSN usage is then cross-tabulated with industry, job position, organization type, VSNs, employers' permission, VSN type and account maintenance according to theoretical framework outlined in chapter 3. Further, VSN use is cross-tabulated with the dependent factors business purposes. These, in turn, are cross-tabulated with account maintenance. The company size is related to applied business purposes in VSNs. The following sections analyse the intended business purposes and targeted benefits in dependence of the VSN groups (refer to chapter 3). Lastly, the dependent variable organization size has been cross-tabulated with VSN account maintenance, targeted contacts, reasons for not using VSNs and discussion of VSN usage within the management.

5.2 Descriptive Statistics

5.2.1 Demographics

5.2.1.1 Age Pattern

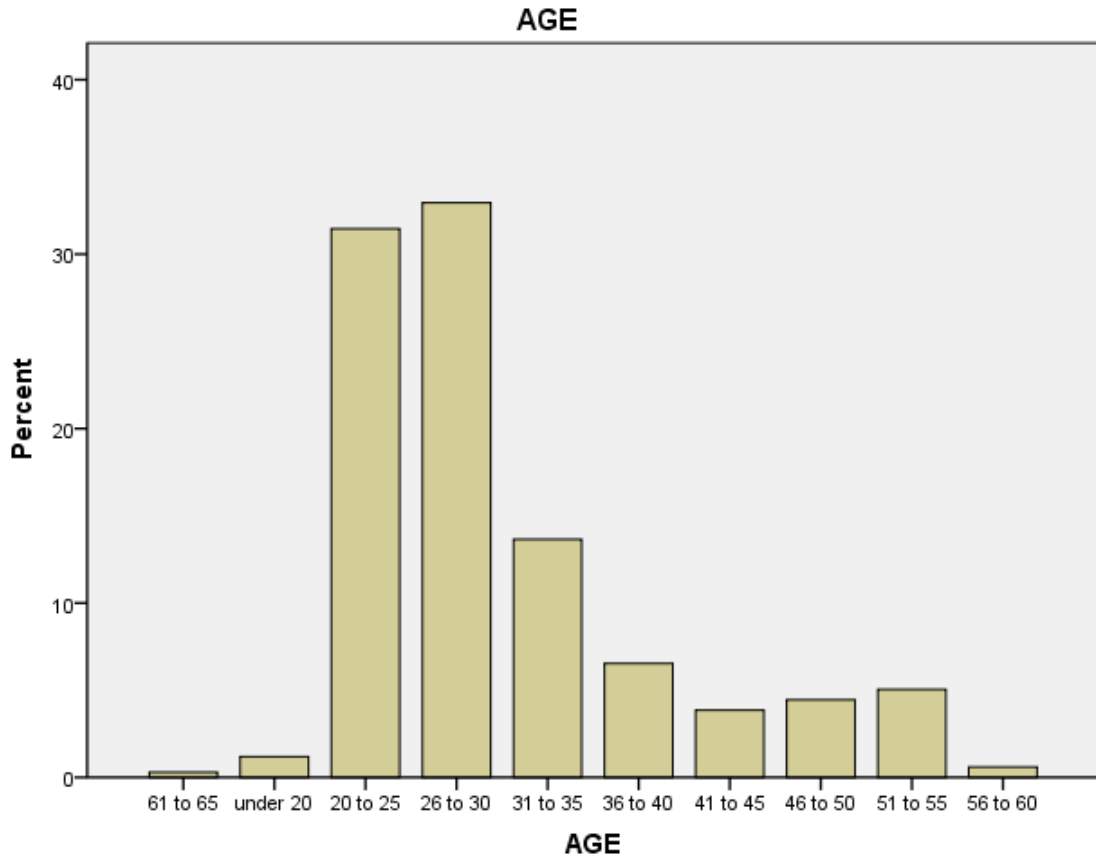


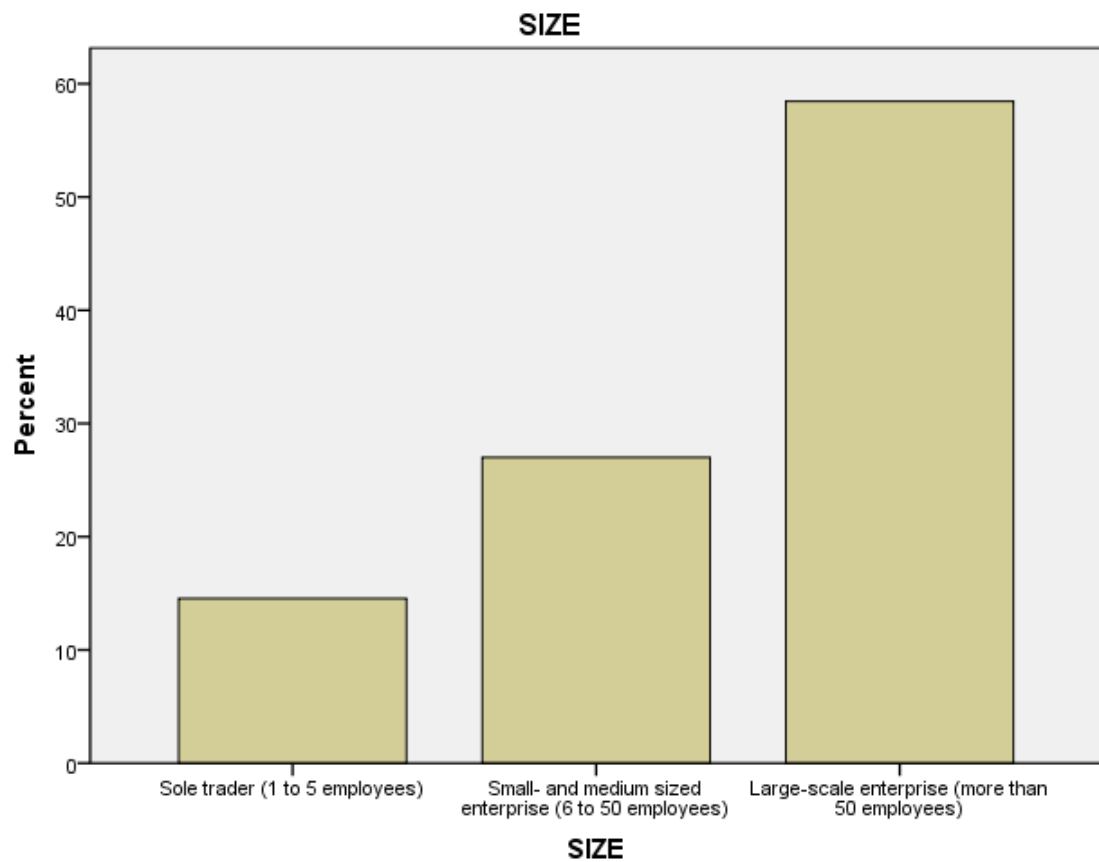
Figure 6: Age pattern

As can be seen Figure 6, most respondents were between the age of 26 and 30 (32.9%), closely followed by the age group 20 to 25 (31.5%). That is caused by the applied technique snowball sampling by peers as well as the fact that the main user group of VSNs in general is between the ages of 20 and 30 (see Chapter 2). The least represented age group was 61–65 (0.3%). The age range of respondents ranged from 18 to 65. Table 1 extrapolates the age pattern data.

Table 1: Age pattern

		AGE			
		Frequency	%	Valid %	Cumulative %
Valid	61 to 65	1	.3	.3	.3
	under 20	4	1.2	1.2	1.5
	20 to 25	106	31.5	31.5	32.9
	26 to 30	111	32.9	32.9	65.9
	31 to 35	46	13.6	13.6	79.5
	36 to 40	22	6.5	6.5	86.1
	41 to 45	13	3.9	3.9	89.9
	46 to 50	15	4.5	4.5	94.4
	51 to 55	17	5.0	5.0	99.4
	56 to 60	2	.6	.6	100.0
	Total	337	100.0	100.0	

5.2.1.2 Company Size Pattern

**Figure 7: Company size pattern**

As can be seen in Figure 7, respondents were mainly working in large-scale companies (58.5%), followed by 27% in small- and medium-sized enterprises (SMEs). Only 15% of the respondents were working with a sole trader.

5.2.1.3 Industry Groups

Respondents were from several industries and were asked to select the industry they were working in. Due to companies being involved overlapping industries it was possible to select up to three industries on the questionnaire. 68.2% selected one industry whereas 24.3% chose two; only 7.4% of respondents picked three industries.

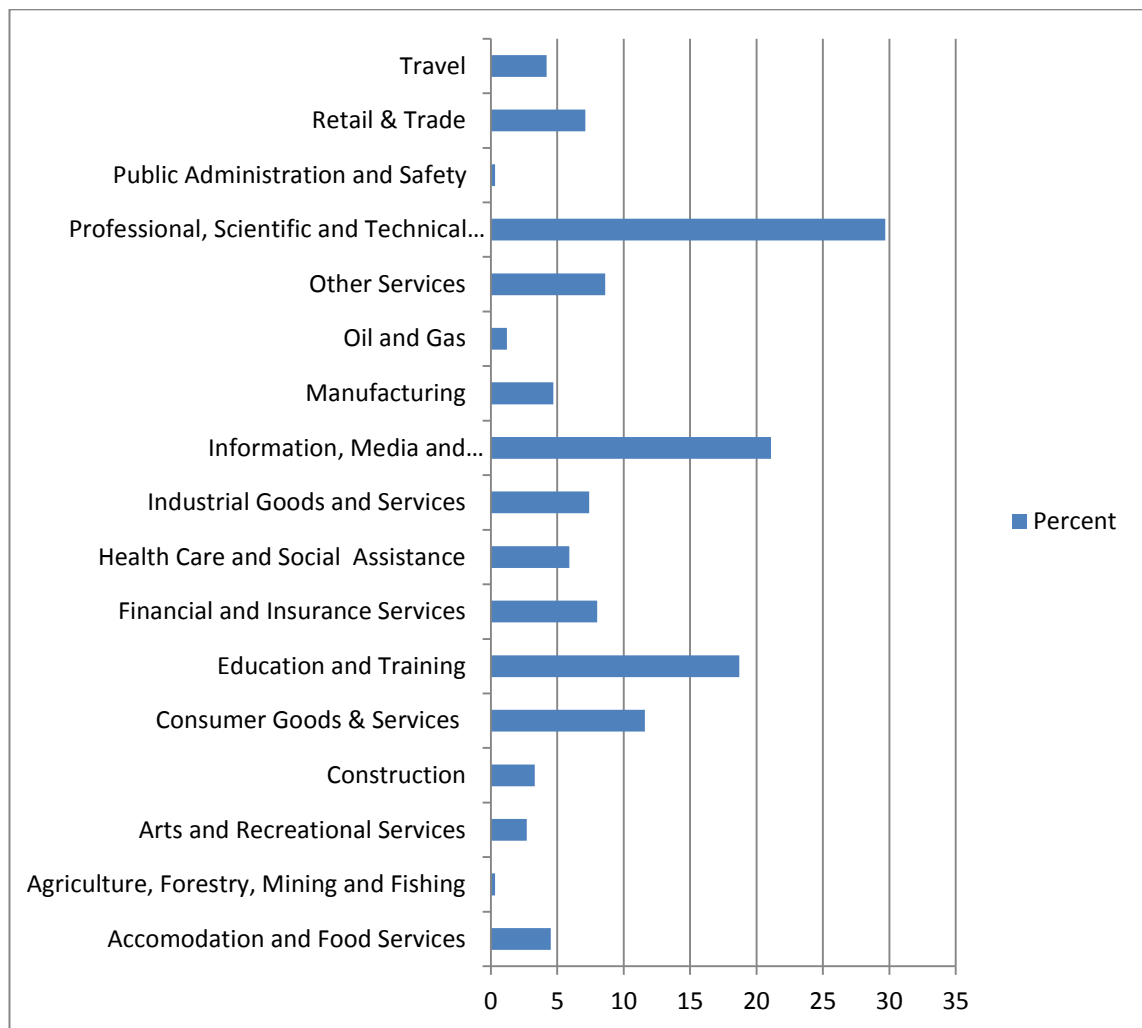


Figure 8: Industry pattern - frequencies

Figure 8 shows the pattern of industries participants were working in. Almost one-third of respondents worked in Professional, Scientific and Technical Services (29.7%). The classifications in the figure are based on the New Zealand Industry Classification (Statistics New Zealand, 2011).

5.2.1.4 Job Level

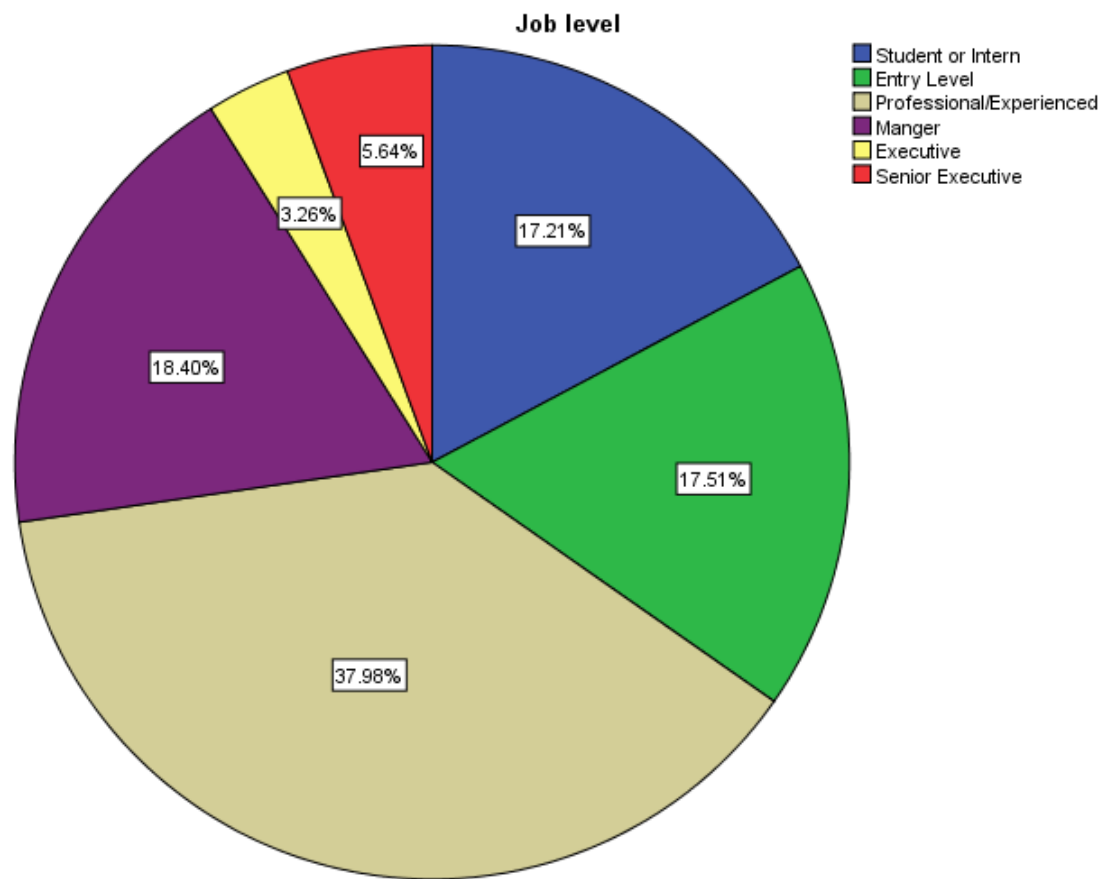


Figure 9: Job level – frequencies

As can be seen in Figure 9, the range of respondents' job levels is wide, with the biggest segment represented by Professional/Experienced staff (37.98%). Entry Level, Student/Interns, and Managers all had similar representation (~18%). The least represented job level was Executives (3.26%) and Senior Executives (5.64%). Overall, all levels of positions in a company were covered.

5.2.1.5 Type of Enterprise

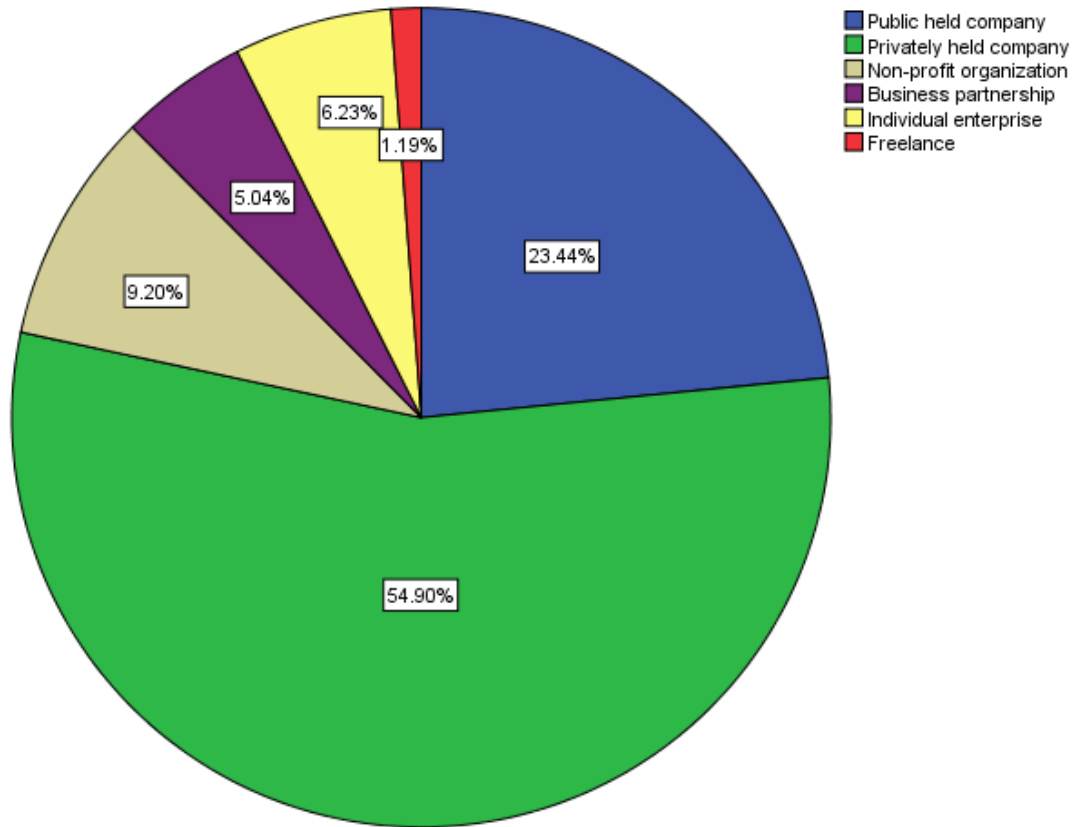


Figure 10: Type of enterprise – frequencies

Figure 10 shows a clear majority of privately-held companies (54.90%) amongst the respondents, with 23.4% of respondents working in publicly-held companies. 9.20% of participants were working for non-profit organizations. The remaining segments (all under 6%) represent business partnerships, individual enterprises and freelancers.

5.2.2 The Use of VSNs in Connection with a Job

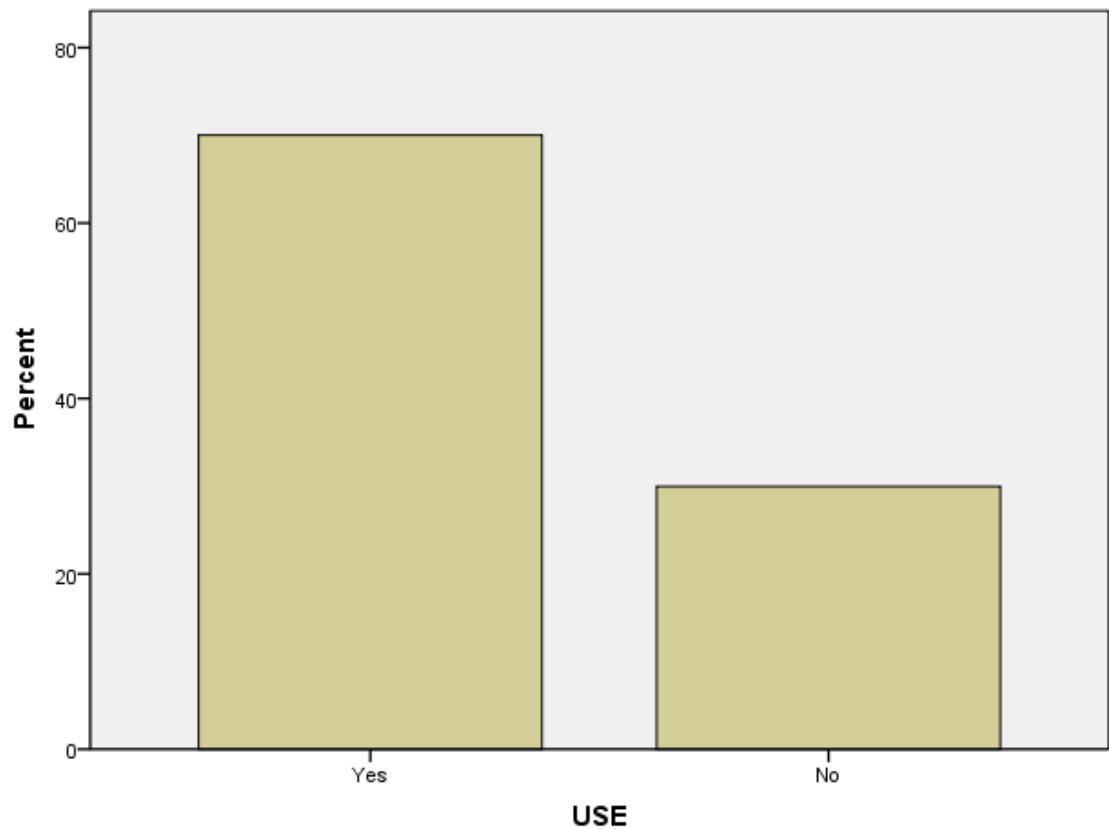


Figure 11: The use of VSNs in connection with a job

Figure 11 clearly shows that the majority of respondents were currently using VSNs in connection with their job (70.0%), while 30% were not.

5.2.3 VSN Pattern

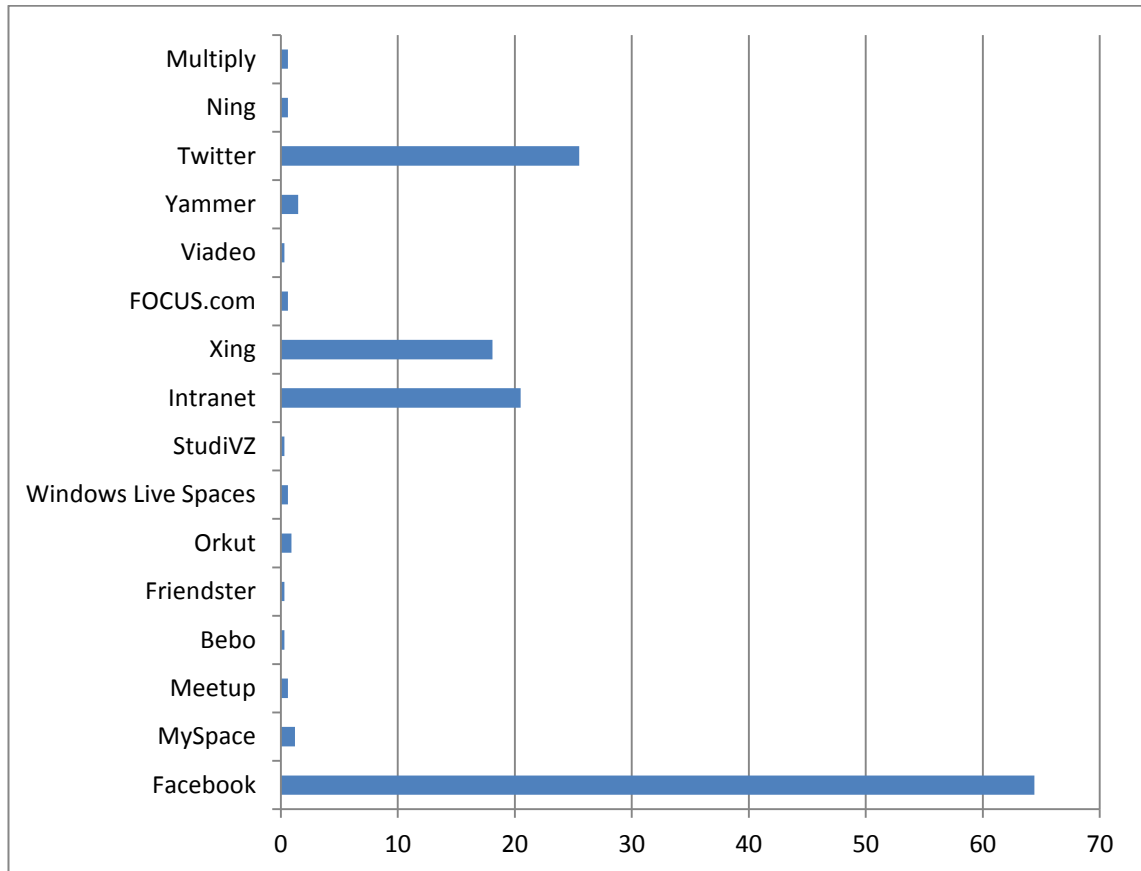


Figure 12: VSN pattern

Table 2: VSN pattern

VSN	Percentage
Facebook	64.4
MySpace	1.2
Meetup	0.6
Bebo	0.3
Friendster	0.3
Orkut	0.9
Windows Live Spaces	0.6
StudiVZ	0.3
Intranet	20.5
Xing	18.1
FOCUS.com	0.6
Viadeo	0.3
Yammer	1.5
Twitter	25.5
Ning	0.6
Multiply	0.6

Figure 12 and Table 2 show that Facebook was the most used VSN in connection with a job, used by almost two-thirds (64.4%) of respondents. Twitter (a micro-blogging service here treated as a VSN) was used by one quarter of respondents (25.5%), followed by the European business VSN XING (18.5%). Interestingly, one-fifth (20.5%) were using no public VSN – only their organization's intranet. The remaining VSNs were used by less than 2% of respondents.

5.2.4 Employer's Official Permission to Use VSNs for Business

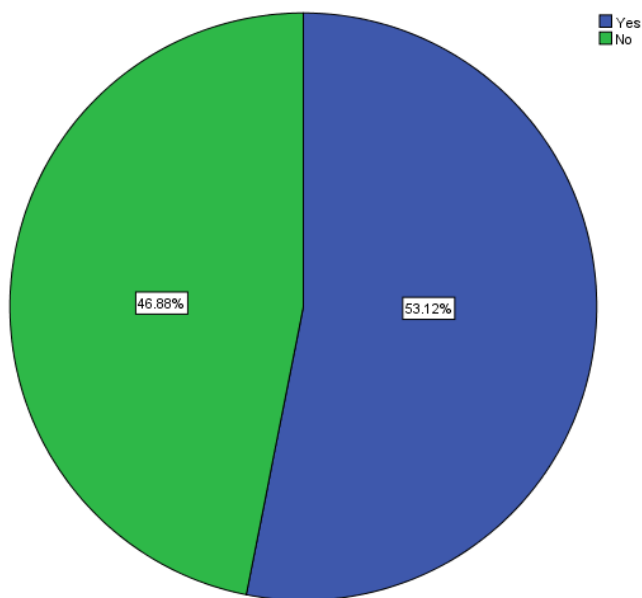


Table 3: Employer's official permission for using VSNs for business (statistics)

N	Valid	337
	Missing	0
Mean		1.47
Std. Error of Mean		.027
Median		1.00
Mode		1
Std. Deviation		.500
Variance		.250
Range		1
Minimum		1
Maximum		2
Percentiles	25	1.00
	50	1.00
	75	2.00

Figure 13: Employer's official permission for using VSNs for business

Figure 13 shows that 53.12% employers encourage their staff to use VSNs for business purposes whereas 46.88% continue prohibiting VSNs at the workplace, with a standard deviation of 0.5 as can be seen in Table 3.

5.2.5 Organizations maintaining a corporate VSN account

Table 4: Organizations maintaining a corporate VSN account (statistics)

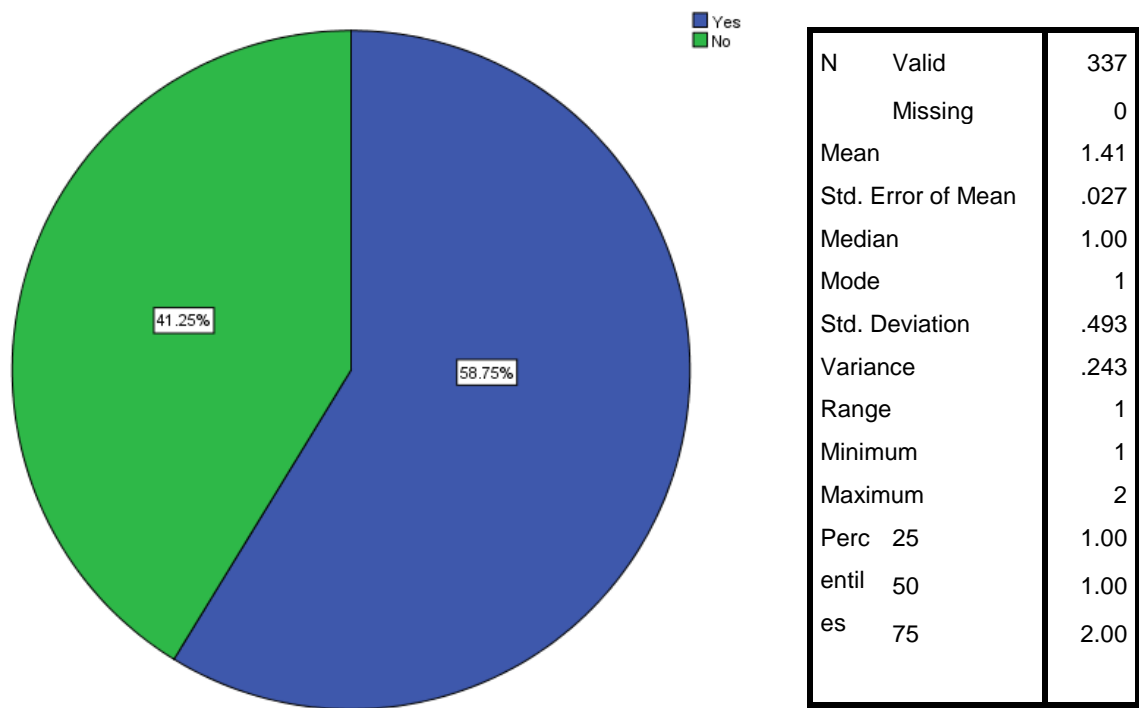


Figure 14: Organizations maintaining a corporate VSN account

This result approximately mirrors the preceding one. Slightly more than half of organizations (58.75%) maintain an account with a VSN while 41.25% of organizations do not maintain any account on VSNs, with a standard deviation of 0.493.

5.2.6 Corporate Account Maintenance Length

Table 5: Corporate account maintenance length (statistics)

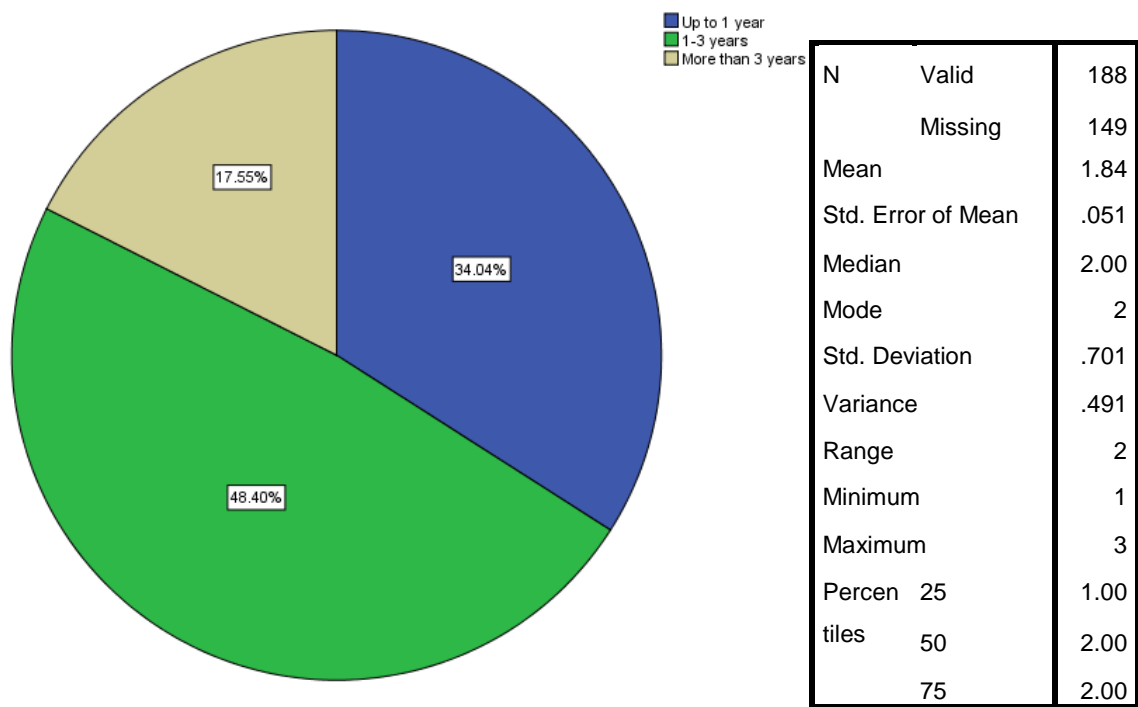


Figure 15: Corporate account maintenance length

As Figure shows, almost half (48.04%) of organizations have been maintaining their account for between 1 and 3 years, with 34.04% maintaining an account for up to 1 year. The accounts of 17.55% of organizations had been active for more than three years. The results showed a standard deviation of 0.701.

5.2.7 Purposes Organizations Use VSNs For



Figure 16: Purposes organizations use VSNs for

Table 6: Purposes organizations use VSNs for

Purpose	Percentage
Recruiting	32.4
Advertising	68.1
Customer satisfaction analysis	14.9
Building relationships with stakeholders (communication/collaboration)	41.5
Market research (competitor analysis)	17
For information purposes (communications/PR)	56.9
Improving Reputation	46.3
Innovation potential through knowledge sharing	21.3
Support creation of brand communities (brand engagement)	28.7
Distribution Channel	13.8
Increase customer engagement	37.2
Employee Engagement	14.9
Customer service	27.7
Product Development	12.2
Investor relations	3.2

As Figure 16 and Table 6 show, the main purposes organizations use VSNs for are advertising (68.1%), information purposes/communications/PR (56.9%), and to increase

reputation (46.3%). Other uses are customer engagement (37.2%), HR recruiting (32.4%), followed by brand engagement (28.7%); market research (17%), employee engagement (14.9%), distribution (13.8%), and product development (12.2%). The least chosen purpose was investor relations (3.2%).

5.2.8 Contacts via VSNs

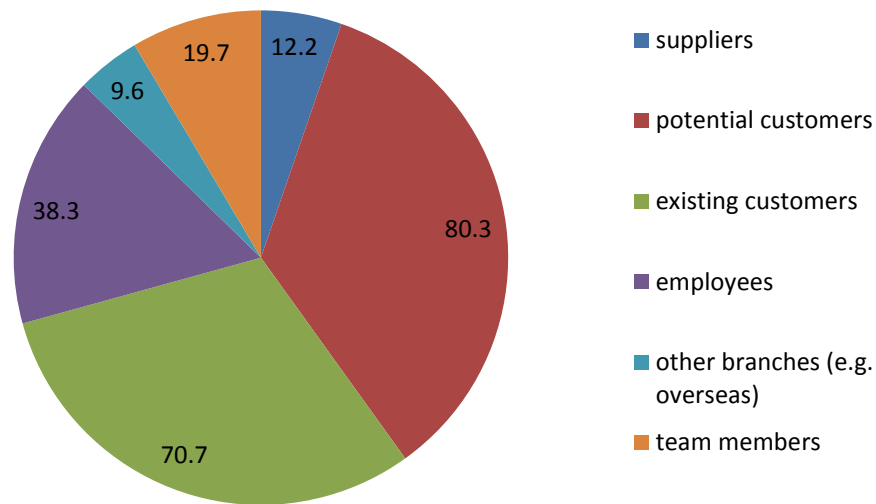


Figure 17: Contacts via VSNs

Figure 17 shows that potential customers are clearly the targeted contacts on VSNs (80.3%), followed by existing customers (70.7%). Approximately one-third of organizations aim to contact employees (38.3%), whereas team members (19.7%), suppliers (12.2%) and other branches (9.6%) are not prioritized.

5.2.9 Corporate Account Update

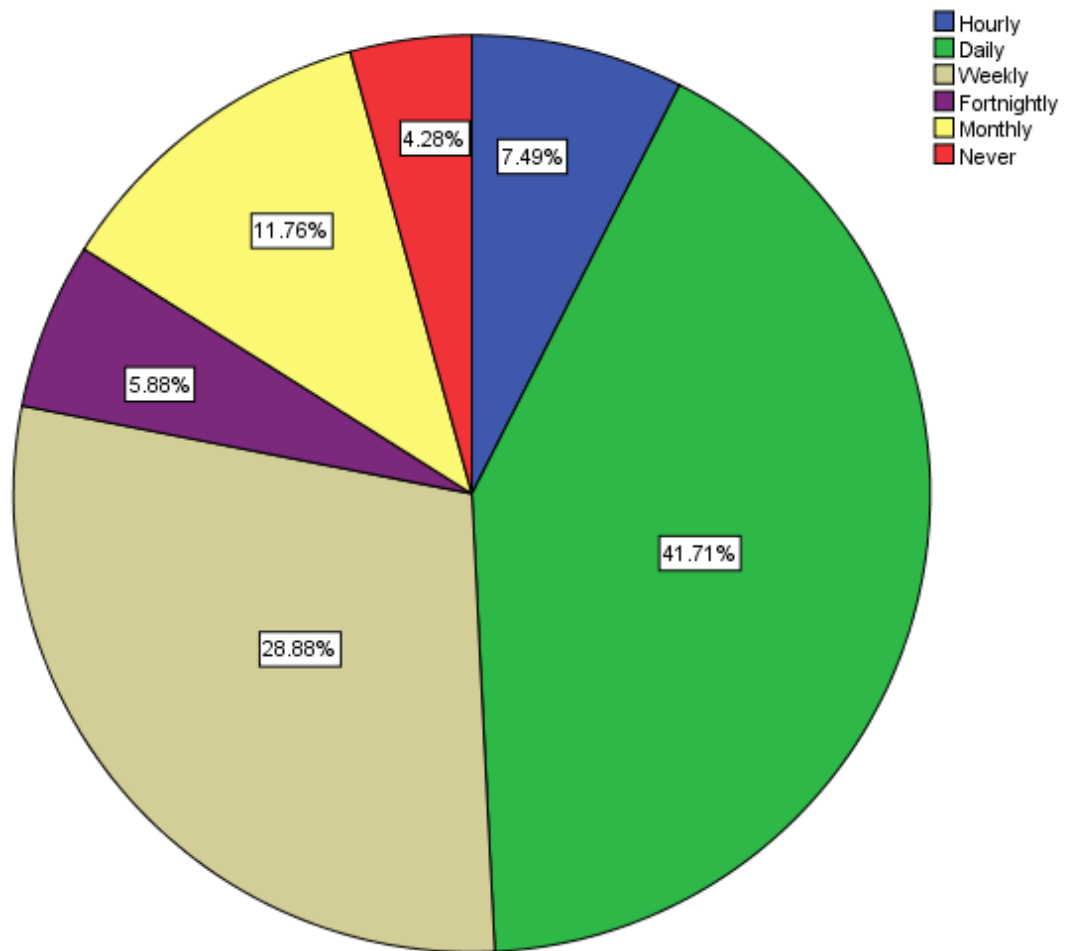


Figure 18: Corporate account update

Figure 18 shows that most organizations updated their VSN account daily (41.71%), with 28.88% updating weekly, 11.76% monthly, 7.49% hourly, 5.88% fortnightly, and 4.28% never.

Table 7: Corporate account update (statistics)

N	Valid	187
	Missing	150
Mean		2.86
Std. Error of Mean		.093
Median		3.00
Mode		2
Std. Deviation		1.272
Variance		1.619
Range		5
Minimum		1
Maximum		6
Percentil	25	2.00
es	50	3.00
	75	3.00

As can be seen in Table 7, the standard deviation of 1.272 confirms a main dispersion between daily and weekly updates.

5.2.10 Social Media Guidelines for Staff in Charge of Corporate VSN Accounts

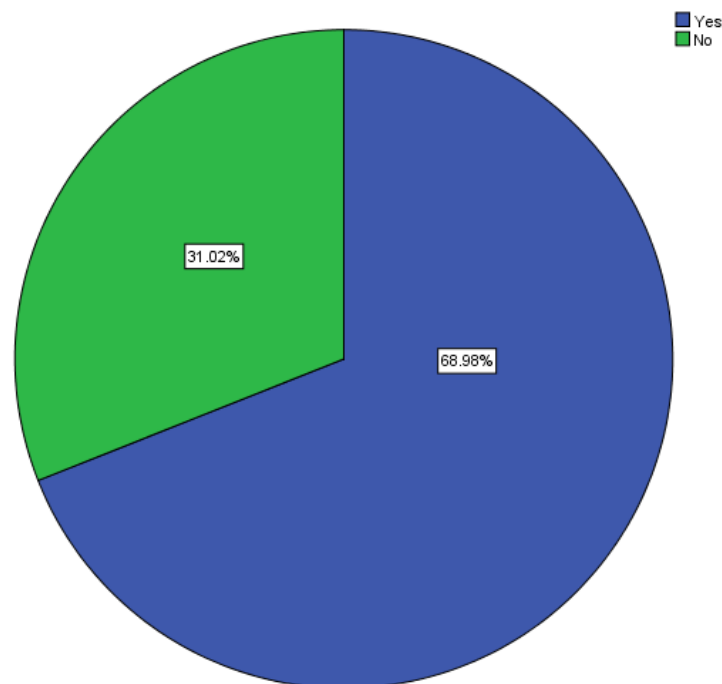


Table 8: Social media guidelines for staff (statistics)

N	Valid	187
	Missing	150
Mean		1.31
Std. Error of Mean		.034
Median		1.00
Mode		1
Std. Deviation		.464
Variance		.215
Range		1
Minimum		1
Maximum		2
Percentile	25	1.00
s	50	1.00
	75	2.00

Figure 19: Social media guidelines for staff

Figure 19 shows a strong trend towards applying social media guidelines for staff operating corporate VSN accounts (68.98%). Less than a third (31.02%) do not apply social media guidelines, with a standard deviation of 0.464.

5.2.11 Benefits of Being Active with a Corporate VSN Account

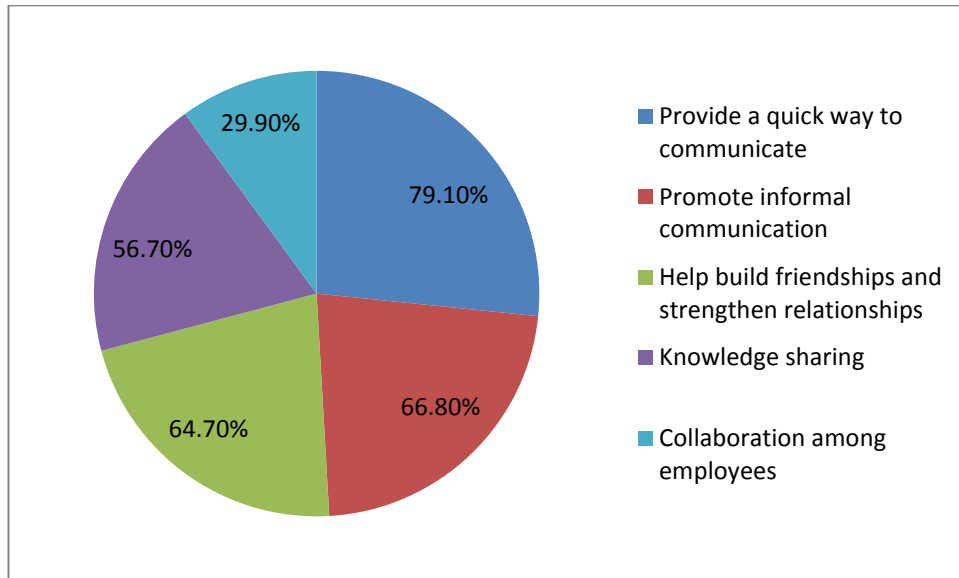


Figure 20: Benefits of corporate VSN account

As Figure 20 shows, quick communication was identified by most of users (79.1%), followed by informal communication (66.8%) and friendship and relationship promotion (64.7%). Knowledge sharing was acknowledged by over half of the respondents (56.7%). Almost one-third appreciated the opportunity to collaborate among employees (29.9%).

5.2.12 VSN as Serious Business Tool

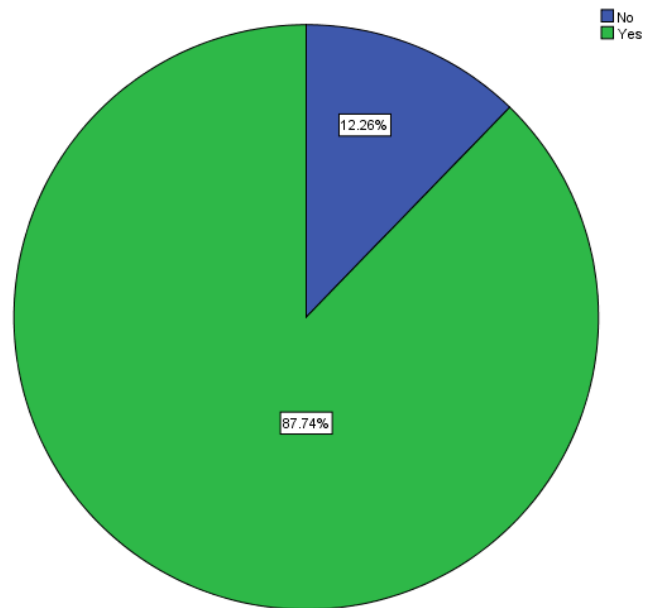


Figure 21: VSN as business tool

Table 9: VSN as business tool (statistics)

N	Valid	318
	Missing	19
Mean		.88
Std. Error of Mean		.018
Median		1.00
Mode		1
Std. Deviation		.329
Variance		.108
Range		1
Minimum		0
Maximum		1
Percentiles	25	1.00
	50	1.00
	75	1.00

The majority of respondents (87.74%) regarded VSN in the business context as a serious business tool. Only 12.26% did not believe in VSNs as a business tool, with a standard deviation of 0.329.

5.2.13 Reasons for Not Using Public VSNs from Organization's Perspective

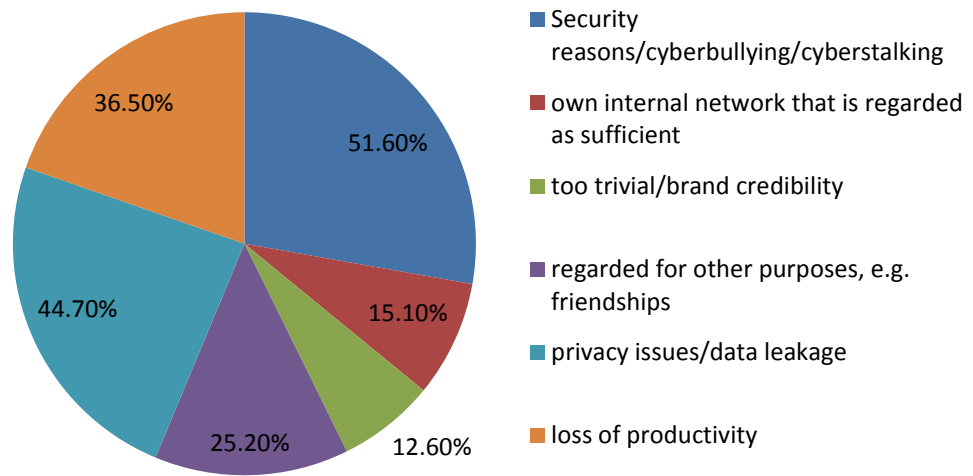


Figure 22: Reasons for not using VSNs in the business context

Figure 22 shows that security reasons (51.6%) and privacy issues (44.70%) were selected by approximately half of respondents. Over one-third (36.5%) chose loss of productivity due to VSN use in business. One-fourth (25.2%) considered VSNs should be used for other purposes (e.g. friendships), while 15.1% regarded their own internal network is as sufficient and 12.6% considered VSNs too trivial.

5.2.14 Discussion of VSN Use by Management

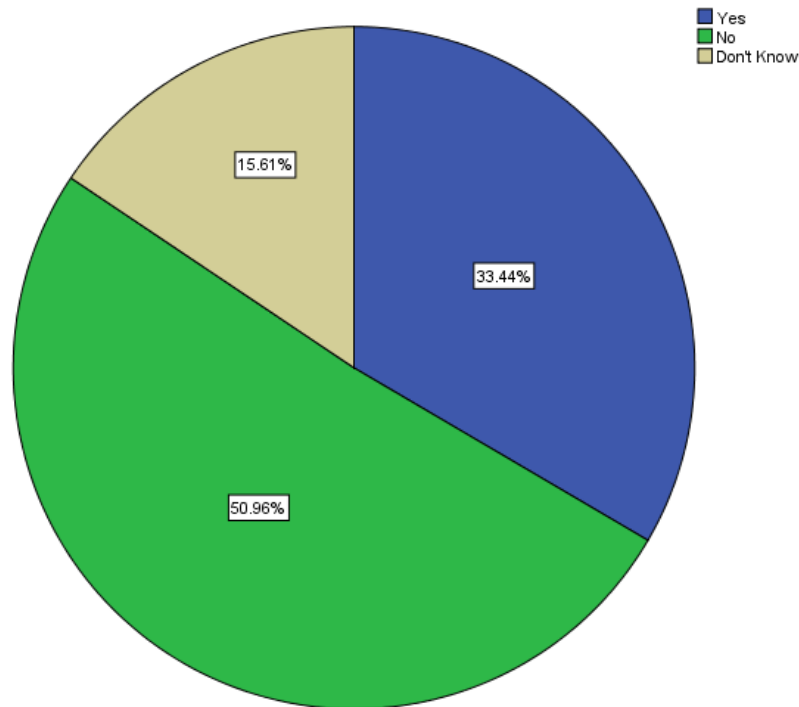


Table 10: Discussion of VSN use by management (statistics)

N	Valid	314
	Missing	23
Mean		1.82
Std. Error of Mean		.038
Median		2.00
Mode		2
Std. Deviation		.678
Variance		.460
Range		2
Minimum		1
Maximum		3
Percentiles	25	1.00
	50	2.00
	75	2.00

Figure 23: Discussion of VSN use by organization's management

Figure 23 shows that over half of respondents (50.96%) declared that VSN use had not been discussed in their organization's management, while one-third (33.44%) stating that it had already been discussed. 15.61% did not know. The standard deviation was 0.678.

5.2.15 Managements' Attitude to Using VSNs in Future

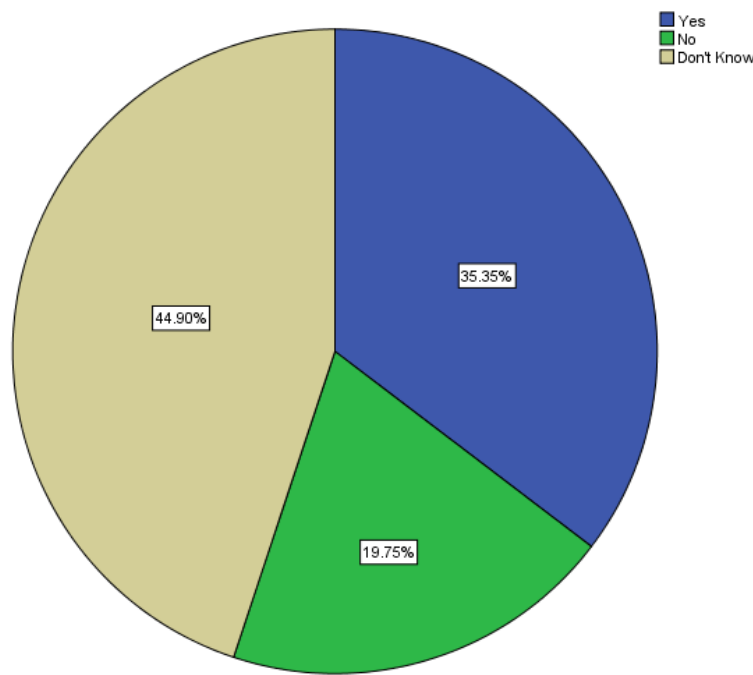


Table 11: Managements' attitude to using VSNs in future (statistics)

N	Valid	314
	Missing	23
Mean		2.10
Std. Error of Mean		.050
Median		2.00
Mode		3
Std. Deviation		.892
Variance		.796
Range		2
Minimum		1
Maximum		3
Percentiles	25	1.00
	50	2.00
	75	3.00

Figure 24: Managements' attitude to using VSNs in future

As Figure 24 shows, 44.90% of respondents did not know whether the introduction of corporate VSN usage was planned whereas 35.35% stated that it was planned. Only 19.75% declared they were not planning to use VSN. The results present a standard deviation of 0.892.

5.3 Key Findings via Cross-tabulation in SPSS


5.3.1 Industry-related Usage of VSN

Employees in the industries Health Care and Social Assistance (coded as industry 8 in SPSS) as well as Industrial Goods and Services (coded as industry 9 in SPSS) are a little less likely to use VSNs for business purposes. See the Chi-Square test in table 13 below to estimate statistical significance.

Table 12: Cross-tabulation Industry Health Care and Social Assistance with VSN use for business purpose

		Health Care and Social Assistance		Total
		Not selected	Yes	
USE	Yes	226	10	236
	No	91	10	101
Total		317	20	337

Table 13: Chi-Square Test VSN use / Industry Health Care and Social Assistance

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.064 ^a	1	 .044	.074	.043
Continuity Correction ^b	3.113	1	.078		
Likelihood Ratio	3.742	1	.053		
Fisher's Exact Test					
Linear-by-Linear Association	4.052	1	.044		
N of Valid Cases	337				


a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.99.

b. Computed only for a 2x2 table

Table 14: Cross-tabulation VSN use/ Industry Industrial Goods and Services

		Industrial Goods and Services		
		Not selected	Yes	Total
USE	Yes	223	13	236
	No	89	12	101
Total		312	25	337

Table 15: Chi-Square-Test VSN use / Industry Industrial Goods and Services

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.182 ^a	1	 .041	.067	.038
Continuity Correction ^b	3.306	1	.069		
Likelihood Ratio	3.877	1	.049		
Fisher's Exact Test					
Linear-by-Linear Association	4.170	1	.041		
N of Valid Cases	337				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.49.


b. Computed only for a 2x2 table

In contrast, participants working for the industry Other Services 13 (i.e. Repair and maintenance; Personal and other services; Private households employing staff) were more likely to use VSNs.

Table 16: Cross-tabulation VSN use/ Industry Other Services

		Other Services		
		Not selected	Yes	Total
USE	Yes	211	25	236
	No	97	4	101
Total		308	29	337

Table 17: Chi-Square-Test VSN use / Industry Other Services

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.957 ^a	1	 .047	.056	.032
Continuity Correction ^b	3.158	1	.076		
Likelihood Ratio	4.521	1	.033		
Fisher's Exact Test					
Linear-by-Linear Association	3.945	1	.047		
N of Valid Cases	337				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.69.

b. Computed only for a 2x2 table


5.3.2 Job position-related usage of VSN

There is a clear trend in the statistics showing that nearly all of the senior executives who participated used VSNs for business purposes.

Table 18: Cross-tabulation VSN use/ Job position

	Job position						Total
	Student or Intern	Entry Level	Professional/ Experienced	Manager	Executive	Senior Executive	
USE Yes	36	28	92	52	9	19	236
No	22	31	36	10	2	0	101
Total	58	59	128	62	11	19	337

Table 19: Chi-Square-Test VSN use / Job position

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.801 ^a	5	 .000
Likelihood Ratio	35.610	5	.000
Linear-by-Linear Association	21.723	1	.000
N of Valid Cases	337		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 3.30.

This finding seemed significant and deserved more attention. Accordingly, the numerous categories of job levels were divided into three job categories: “Low”, “Mid” and “Managerial”. Consequently the descriptive statistics showed a normal distribution of these categories with almost even shares, as can be seen in Table 12.

Table 20: Job categories – frequencies

	Frequency	%	Valid %	Cumulative %
Valid Low	117	34.7	34.7	34.7
Mid	128	38.0	38.0	72.7
Managerial	92	27.3	27.3	100.0
Total	337	100.0	100.0	

Cross-tabulation was employed again (see below) and this confirmed for the previous result. Accordingly, the majority of respondents (86.9%) at the managerial level use VSNs for business purposes and this was confirmed by a relatively low degree of freedom.

Table 21: Cross-tabulation VSN use / job category



		USE		Total
		Yes	No	
JobCat	Low	64	53	117
	Mid	92	36	128
	Managerial	 80	12	92
Total		236	101	337

Table 22: Chi-Square Test VSN use / job category

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.866 ^a	 2	.000
Likelihood Ratio	27.048	2	.000
Linear-by-Linear Association	25.134	1	.000
N of Valid Cases	337		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 27.57.

5.3.3 Organization-type-related Usage of VSN

No significant pattern could be found when analysing the relation between the type of organization the participant works for and the usage of VSNs. Choices given were publicly-held company, privately-held company, non-profit organization, business partnership, individual enterprise and freelance.

From a descriptive statistics point of view, the non-profit organizations were more likely to use VSNs for business purposes.

Table 23: Cross-tabulation VSN use / organization type



		ORG						Total
		Public held company	Privately held company	Non-profit organization	Business partnership	Individual enterprise	Freelance	
US	Yes	53	128	 25	12	16	2	236
E	No	26	57	6	5	5	2	101
Total		79	185	31	17	21	4	337

Table 24: Chi-Square Test VSN use / organization type

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.199 ^a	 5	.669
Likelihood Ratio	3.291	5	.655
Linear-by-Linear Association	.477	1	.490
N of Valid Cases	337		

a. 2 cells (16.7%) have expected count less than 5. The minimum expected count is 1.20.


5.3.4 VSNs Used at Work

The statistics relating to which VSNs are used for work and at work show are presented below.

Table 25: Cross-tabulation VSN use / Facebook

		VSN_Facebook		Total
		Not selected	Yes	
USE	Yes	84	152	236
	No	36	65	101
Total		120	217	337

Table 26: Chi-Square Test VSN use / Facebook at work

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.000 ^a	1	 .993	1.000	.544
Continuity Correction ^b	.000	1	1.000		
Likelihood Ratio	.000	1	.993		
Fisher's Exact Test					
Linear-by-Linear Association	.000	1	.993		
N of Valid Cases	337				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 35.96.

b. Computed only for a 2x2 table


Two-thirds of respondents use Facebook for business purposes and one-third use Facebook at work without permission.

Twitter was the VSN most used at work for business purposes.

Table 27: Cross-tabulation VSN use / Twitter

		VSN_Twitter		Total
		Not selected	Yes	
USE	Yes	158	78	236
	No	93	8	101
Total		251	86	337

Table 28: Chi-Square Test VSN use / Twitter

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	23.501 ^a	1	 .000	.000	.000
Continuity Correction ^b	22.197	1	.000		
Likelihood Ratio	27.389	1	.000		
Fisher's Exact Test					
Linear-by-Linear Association	23.431	1	.000		
N of Valid Cases	337				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 25.77.


b. Computed only for a 2x2 table

Xing, a professional European VSN, was used by 10% of respondents at work (see 5.2.3), whereas 24% of respondents use it for business purposes at work. It should be considered, that social and blend only are overestimated while Professional and Social/Blend are underestimated (see section 4.9).

Table 29: Cross-tabulation VSN use / Xing

		VSN_XING		Total
		Not selected	Yes	
USE	Yes	187	49	236
	No	89	12	101
Total		276	61	337

Table 30: Chi-Square Test VSN use / Xing

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.764 ^a	1	 .052	.063	.034
Continuity Correction ^b	3.188	1	.074		
Likelihood Ratio	4.013	1	.045		
Fisher's Exact Test					
Linear-by-Linear Association	3.752	1	.053		
N of Valid Cases	337				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.28.

b. Computed only for a 2x2 table


5.3.5 Employers' Permission-related Use of VSN

A lot of attention has been paid to employers permitting their staff to use VSNs for business purposes or not. Interestingly enough, 23.4% of respondents used VSNs despite being not permitted to do so by their employers. Conversely, 6.5% of respondents did not use any VSNs at work for business purposes despite being permitted to do so by their employers.

Table 31: Cross-tabulation VSN use / Employer's permission

		Employer's Permission to use VSNs		Total
		Yes	No	
USE	Yes	157	79	236
	No	22	79	101
Total		179	158	337

Table 32: Chi-Square Test VSN use / Employer's permission

Chi-Square Tests					
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	56.860 ^a	1	 .000	.000	.000
Continuity Correction ^b	55.078	1	.000		
Likelihood Ratio	59.101	1	.000		
Fisher's Exact Test					
Linear-by-Linear Association	56.691	1	.000		
N of Valid Cases	337				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 47.35.

b. Computed only for a 2x2 table

For statistical purposes, all VSNs were grouped into subgroups as per the framework presented in chapter 3. It could then be seen that 15.7% of participants who did not have their employer's permission to use VSNs, despite use Professional VSNs at work. Further, 13.9% of participants use Social VSNs even though they do not have their employer's permission.

Table 33: Cross-tabulation VSN grouping / employer's permission

		Employers Permission to use VSNs		Total
		Yes	No	
VSN Grouping	Blend	2	2	4
	None	3	28	31
	Prof	28	53	81
	Prof/Blend	2	0	2
	Prof/Social	30	18	48
	Prof/Social/Blend	29	3	32
	Social	43	47	90
	Social/blend	42	7	49
Total		179	158	337

Table 34: Chi-Square Test VSN Grouping / Employer's permission

	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	78.175 ^a	7	.000
Likelihood Ratio	87.966	7	.000
N of Valid Cases	337		

a. 4 cells (25.0%) have expected count less than 5. The minimum expected count is .94.

It should be noted that the word “encourage” in the survey question 8 (Does the organization you work for officially permit/encourage the application of any VSN for business purposes?) might be a weakness and in turn, could lead to misunderstandings with the participant as some of the participants might be encouraged by their team leader for example but are not officially permitted to do so by the top management. It could be also the other way around, i.e. permitted by the management but not encouraged to do so. However, a high degree of freedom (7) confirms this finding.

5.3.6 VSN Use for Business Purposes Related to VSN Type

According to the findings, 15.1% of respondents whose organization had an account with a VSN were using a purely social VSN for business purposes, while 13.1% of respondents whose organization has an account with a VSN were using Social/Blend

VSNs for business purposes. A high degree of freedom of 7 in this case might require deeper analysis to establish statistical significance.

Table 35: Cross-tabulation VSN Grouping / VSN Account

		VSN Account		Total
		Yes	No	
VSN Grouping	Blend	3	1	4
	None	7	24	31
	Prof	24	57	81
	Prof/Blend	1	1	2
	Prof/Social	37	11	48
	Prof/Social/Blend	31	1	32
	Social	51	39	90
	Social/blend	44	5	49
Total		198	139	337

Table 36: Chi-Square Test VSN Grouping / VSN account

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	78.175 ^a	7	.000
Likelihood Ratio	87.966	7	.000
N of Valid Cases	337		

a. 4 cells (25.0%) have expected count less than 5. The minimum expected count is .94.

5.3.7 VSN Use for Business Purposes Related to Maintaining an Account

Interestingly, 36% of respondents did not use any VSNs for business purposes despite having an account with one of them. It should be noted that their organizations did have an account though; the participant did not personally use it. This distinction might not have been made clear in the questionnaire.

Table 37: Cross-tabulation VSN use / VSN account

		ACC		Total
		Yes	No	
USE	Yes	160	76	236
	No	38	63	101
Total		198	139	337

Table 38: Chi-Square Test VSN use / VSN account

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	26.571 ^a	1	.000	.000	.000
Continuity Correction ^b	25.341	1	.000		
Likelihood Ratio	26.434	1	.000		
Fisher's Exact Test					
Linear-by-Linear Association	26.493	1	.000		
N of Valid Cases	337				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 41.66.

b. Computed only for a 2x2 table

5.3.8 Business Purposes

Respondents have less likely chosen the following business purposes:

- Building relationships with stakeholders (improvement of communication and collaboration)
- Market research (competitor analysis)
- Innovation potential through knowledge sharing
- Support creation of brand communities (brand engagement)

It should be noted that, if respondents have not chosen certain business purposes that were offered as an option in the survey, they may not know whether it is used and how it is used by the organization. Hence, deeper analysis is required on company size, which is conducted below.

5.3.9 The Company Size Related to Applied Business Purposes in VSNs

Analysis of the findings established that SMEs were more likely to check purpose a) Competitor analysis and purpose b) Innovation potential through knowledge sharing in the questionnaire.

Cross-tabulation of organization type, job level and business purpose limits the significance of the results due to different range of job levels of participants and differences in company dynamics. The approach here is to collapse the original 6 job levels into 3, i.e. 1. Student/intern/entry level; 2. Professional; and 3. Manager and (senior) executives. This required recoding into different variables. Another weakness and key question might be: Who responded to the survey and what is their view of the organization? Can the participants answer the questions of the survey from an objective point of view? The suggestion is, the higher the job level, the more likely the participant was to put weight on strategic purposes (targeted business purposes on VSN).

5.3.10 Targeted Business Purposes in Relation to VSN Classification

Business Purpose 4: Building Relationships with Stakeholders (improvement of communication and collaboration)

It can be clearly stated that the majority of respondents who were aiming to build relationships with stakeholders chose the all three, Professional, Social and Blend VSNs. It is to note that, when the Blend grouping comes into play, then purpose 4 seems to be more likely. In turn, organizations that are aiming for building relationships with stakeholders chose mainly Blend VSNs. When a Social VSN comes into the equation, it is less likely. In turn, organizations for aiming to approach stakeholders, will less likely engage with purely social VSNs such as Facebook is. There is a progression of aiming for business purpose 4 from social to professional to blend, i.e. organizations that are aiming for relationships with stake holders will least likely chose social VSNs but most likely chose blend VSNs. See table 39.

Table 39: Cross-tabulation VSN Grouping / Stakeholder Relationships

		Stakeholder Relationship (improvement communication and collaboration)		Total
		Not selected	Yes	
VSN Grouping	Blend	1	2	3
	None	4	1	5
	Prof	12	9	21
	Prof/Blend	0	1	1
	Prof/Social	24	12	36
	Prof/Social/Blend	14	17	31
	Social	38	11	49
	Social/blend	17	25	42
Total		110	78	188

Table 40: Chi-Square Test VSN Grouping / Stakeholder Relationships

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.368 ^a	7	.007
Likelihood Ratio	20.252	7	.005
N of Valid Cases	188		

a. 6 cells (37.5%) have expected count less than 5. The minimum expected count is .41.

Business Purpose 5: Market Research (competitor analysis)

This was observed to be somewhat similar to Business Purpose 4 in relation to the VSN groupings.

Table 41: Cross-tabulation VSN Grouping / Market Research

		Market Research		Total
		Not selected	Yes	
VSN Grouping	Blend	2	1	3
	None	5	0	5
	Prof	20	1	21
	Prof/Blend	0	1	1
	Prof/Social	34	2	36
	Prof/Social/Blend	20	11	31
	Social	44	5	49
	Social/blend	31	11	42
Total		156	32	188

Table 42: Chi-Square Test VSN Grouping / Market Research

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	23.645 ^a	7	.001
Likelihood Ratio	23.309	7	.002
N of Valid Cases	188		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .17.

Business Purpose 6: Information purposes (communications/public and investor relations)

Here the Social VSN grouping is dominant. It presents the strongest element whereas the Blend grouping is significant and the Professional grouping is least important.

Table 43: Cross-tabulation VSN Grouping / Information Purposes

		Information Purposes		Total
		Not selected	Yes	
VSN Grouping	Blend	0	3	3
	None	0	5	5
	Prof	13	8	21
	Prof/Blend	0	1	1
	Prof/Social	20	16	36
	Prof/Social/Blend	5	26	31
	Social	23	26	49
	Social/blend	20	22	42
Total		81	107	188

Table 44: Chi-Square Test VSN Grouping / information purposes

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.964 ^a	7	.003
Likelihood Ratio	26.379	7	.000
N of Valid Cases	188		

a. 6 cells (37.5%) have expected count less than 5. The minimum expected count is .43.

Business Purpose 7: Improving Reputation

Here the Blend grouping has the strongest impact whereas the Professional grouping has not been used to a remarkable degree.

Table 45: Cross-tabulation VSN Grouping / Improving Reputation

		Improving Reputation		Total
		Not selected	Yes	
VSN Grouping	Blend	3	0	3
	None	2	3	5
	Prof	13	8	21
	Prof/Blend	0	1	1
	Prof/Social	25	11	36
	Prof/Social/Blend	7	24	31
	Social	31	18	49
	Social/blend	20	22	42
Total		101	87	188

Table 46: Chi-Square Test VSN Grouping / Improving Reputation

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.786 ^a	7	.002
Likelihood Ratio	24.939	7	.001
N of Valid Cases	188		

a. 6 cells (37.5%) have expected count less than 5. The minimum expected count is .46.

Business Purpose 8: Innovation Potential through Knowledge Sharing

Here the Professional and Blend groupings have equal shares. The Social grouping has substantially fewer users for this business purpose.

Table 47: Cross-tabulation VSN Grouping / Innovation potential (knowledge sharing)

		Innovation potential through knowledge sharing		Total
		Not selected	Yes	
VSN Grouping	Blend	2	1	3
	None	4	1	5
	Prof	18	3	21
	Prof/Blend	0	1	1
	Prof/Social	30	6	36
	Prof/Social/Blend	21	10	31
	Social	44	5	49
	Social/blend	29	13	42
Total		148	40	188

Table 48: Chi-Square Test VSN Grouping / Innovation potential (knowledge sharing)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.201 ^a	7	.067
Likelihood Ratio	12.875	7	.075
N of Valid Cases	188		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .21.

Business Purpose 9: Support Creation of Brand Communities (brand engagement)

Here no significance or pattern could be found.

Business Purpose 11: Increase Customer Management

The analysis showed that when the Blend VSN group comes into play, the purpose (code 11 in SPSS) Increase Customer Management becomes stronger. The Social/Blend group has the strongest impact when it comes to the aim of increased customer management.

Table 49: Cross-tabulation VSN Grouping / Increase customer management

		Increase customer management		Total
		Not selected	Yes	
VSN Grouping	Blend	2	1	3
	None	4	1	5
	Prof	16	5	21
	Prof/Blend	0	1	1
	Prof/Social	26	10	36
	Prof/Social/Blend	12	19	31
	Social	36	13	49
	Social/blend	22	20	42
Total		118	70	188

Table 50: Chi-Square Test VSN Grouping / Increase customer management

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.354 ^a	7	.015
Likelihood Ratio	17.609	7	.014
N of Valid Cases	188		

a. 6 cells (37.5%) have expected count less than 5. The minimum expected count is .37.

5.3.11 Targeted Benefits in Dependence of VSN Grouping

When cross-tabulating the targeted benefits (coded: BEN) with the VSN groupings no relations or significance could be found. The issue here might be the different types of organizations respondents were associated with. The biggest issue however was the small sample size (n=337).

The only real significance was found in relation to benefit 4, “Knowledge sharing”. There are higher perceived benefits of ‘Knowledge sharing’, when the group “blend” becomes part of the equation. The underlying issue, namely the size of organization, is what drives what VSNs get used for and that in turn drives what strategically benefits the organization.

Table 51: Cross-tabulation VSN Grouping / Knowledge sharing

		Knowledge sharing		Total
		Not selected	Yes	
VSN Grouping	Blend	1	2	3
	None	2	3	5
	Prof	12	9	21
	Prof/Blend	0	1	1
	Prof/Social	17	19	36
	Prof/Social/Blend	8	23	31
	Social	28	20	48
	Social/blend	13	29	42
Total		81	106	187

Table 52: Chi-Square Test VSN Grouping / Knowledge Sharing

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.662 ^a	7	.058
Likelihood Ratio	14.280	7	.046
N of Valid Cases	187		

a. 6 cells (37.5%) have expected count less than 5. The minimum expected count is .43.

5.3.12 Dependence of Organization Size on Maintaining an Account on VSNs

When analysing the dependence of organization size of having an account with a VSN, no pattern could be identified – having an account seems independent of organization size.

Table 53: Cross-tabulation VSN Grouping / organization size

		SIZE			Total
		Sole trader (1 to 5 employees)	Small- and medium sized enterprise (6 to 50 employees)	Large-scale enterprise (more than 50 employees)	
VSN Grouping	Blend	2	1	1	4
	None	3	7	21	31
	Prof	5	17	59	81
	Prof/Blend	0	0	2	2
	Prof/Social	5	13	30	48
	Prof/Social/Blend	11	6	15	32
	Social	16	22	52	90
	Social/blend	7	25	17	49
Total		49	91	197	337

Table 54: Chi-Square Test VSN Grouping / organization size

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	41.663 ^a	14	.000
Likelihood Ratio	38.649	14	.000
N of Valid Cases	337		

a. 8 cells (33.3%) have expected count less than 5. The minimum expected count is .29.

5.3.13 Dependence of Organization Size on Targeted Contacts on VSNs

When analysing the dependence of organization size on targeted contacts the organization would like to create on VSNs, a pattern was found that showed that sole traders and SMEs considered contacting suppliers to be most important.

Table 55: Cross-tabulation organization size / suppliers

		Suppliers		Total
		Not selected	Yes	
SIZE	Sole trader (1 to 5 employees)	23	8	31
	Small- and medium sized enterprise (6 to 50 employees)	45	5	50
	Large-scale enterprise (more than 50 employees)	97	10	107
Total		165	23	188

Table 56: Chi-Square Test organization size / suppliers

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.382 ^a	2	.041
Likelihood Ratio	5.356	2	.069
N of Valid Cases	188		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.79.

In order to gain accurate statistics, possible contacts were cross-tabulated with the VSN grouping (see Chapter 3:). This showed that Social VSNs turned out to be mainly used to contact existing customers (see table 57) and employees (see table 59), whereas the Blend grouping turned out to be mostly used to contact potential/prospective customers (see table 55).

Table 57: Cross-tabulation VSN Grouping / potential customers

		Potential customers		Total
		Not selected	Yes	
VSN Grouping	Prof	7	14	21
	Prof/Social	9	27	36
	Prof/Social/Blend	0	31	31
	Social	13	36	49
	Social/blend	5	37	42
Total		34	145	179

Table 58: Chi-Square Test VSN Grouping / potential customers

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.100 ^a	4	.007
Likelihood Ratio	19.459	4	.001
N of Valid Cases	179		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 3.99.

Table 59: Cross-tabulation VSN Grouping / Existing customers

		Existing Customers		Total
		Not selected	Yes	
VSN Grouping	Prof	8	13	21
	Prof/Social	14	22	36
	Prof/Social/Blend	2	29	31
	Social	17	32	49
	Social/blend	10	32	42
Total		51	128	179

Table 60: Chi-Square Test VSN Grouping / Existing Customers

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.629 ^a	4	.020
Likelihood Ratio	13.695	4	.008
N of Valid Cases	179		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.98.

Table 61: Cross-tabulation VSN Grouping / Employees

		Employees		Total
		Not selected	Yes	
VSN Grouping	Prof	14	7	21
	Prof/Social	15	21	36
	Prof/Social/Blend	22	9	31
	Social	28	21	49
	Social/blend	31	11	42
Total		110	69	179

Table 62: Chi-Square Test VSN Grouping / Employees

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.467 ^a	4	.033
Likelihood Ratio	10.457	4	.033
N of Valid Cases	179		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.09.

5.3.14 Dependence of Organization Size on Reasons for Not Using VSNs

The dependence of the organization size on identifiable reasons why organizations do not use public VSNs revealed a pattern. Large-scale companies considered security reasons such as cyber bullying and cyber stalking as the most important reasons for not using public VSNs.

5.3.15 Dependence of Organization Size on Discussion of VSN Usage within Management

When cross-tabulating the organization size with the discussion of VSN usage within the management, it was found that large-scale companies seem to be less likely to have discussed the use of VSN within the management. It should be noted that the respondents from large-scale companies might not know if it had been discussed within the management.

5.4 Chapter Summary

This chapter presented the key findings as well as the results of the data analysis procedures used. Substantial differences in businesses' use of VSNs in different industries were found. Surprisingly, job position is a crucial indicator of using or not using VSN for businesses. Senior executives surveyed were using VSNs without exception. Business purposes varied across the three different VSN groups. However, a relation between organization type and VSN usage could not be established. The next chapter discusses the above results in order to answer the research questions presented in Chapter 1. The limitations and implications of this study will also be discussed.

Chapter 6: Discussion and Conclusions

6.1 Introduction to the Chapter

The preceding chapter examined closely the relations of VSN usage with different dependent factors such as industry, organization type, organization size and other important factors. It provided some interesting insights, including that senior executives are using VSNs without exception, independent from industry and other influencing factors. This chapter discusses the study's findings and draws some conclusions before finally answering the research questions. Theoretical and practical implications will be derived from both the thorough literature review and the research results.

RQ1: What is the state of corporate VSN use to date?

RQ2: How can an organization make use of VSNs in a constructive way for commercial purposes?

6.2 Discussion and Implications

As pointed out at the beginning, the first objective of this study is to find out how companies make use of VSNs for commercial purposes, particularly in connection with their jobs. The second objective is to review the state of corporate VSN usage.

The main benefits of using VSNs from the organization perspective are quick and informal communication ways, relationship encouragement, and knowledge sharing. Industries more likely to use VSNs were identified as the following: a) Repair and maintenance; b) Personal and other services; and c) Private households employing staff. The industry Industrial Goods and Services was identified to be less likely to use VSN. That implicates that staff specifically in this industry should be approached and alerted on the features and benefits. Especially in Industrial Goods and Services, suppliers as business contacts might be easier to find on VSNs as this is a borderless tool being able to search internationally, e.g. in certain interest groups on professional VSNs such as LinkedIn.

Regarding the community of practice described in section 2.2.1, this first step of contact via VSNs can establish long-term relationships between organizations that can push business. Interestingly, approximately half of the employees surveyed (53.1%) were

encouraged to use VSNs for business purposes and maintain a corporate account (58.8%), mostly with Facebook (64.4%). Interestingly 70% of respondents were using VSNs in connection with their job, but business-related VSN use was dependent on the job level. It was found that all participating senior executives are using VSNs for business purposes. That shows how powerful VSNs already are and in the future that power will increase as they are leveraged by top management.

The responsibility of powerfully employing VSNs as business tools has shifted to the managerial level. Powerful employment of VSNs by top management requires permission for their staff to use VSNs. Only half of respondents were officially permitted to use VSNs in their job. It shows that there is still not enough awareness of VSN use as a business tool within the management heads. Consequently, that indicates some further lacks such as education of staff to use VSNs according to social media guidelines for staff that is in charge to maintain corporate accounts. Interestingly though, it was found that 15.7% of respondents already use Professional VSNs in the business context at work without permission of their employer (section 5.3.5). That could explain the reason of productivity loss provided by one-third of respondents that are not using VSNs currently. In order to conquer that fear the next step might be for companies to create a corporate account on a VSN and introduce social media guidelines. Approximately one-third of respondents' organizations were lacking social media guidelines and two-fifths lacked a corporate VSN account.

The theoretical framework presented in Chapter 3 categorizes VSNs into three subgroups and was designed to assist organizations to create their own social media guidelines without the anxiety of productivity loss. By referring to this framework managers can decide which VSN group they want to enter and then create guidelines for staff in charge of the corporate VSN account, in order to avoid such problems as productivity loss or data leakage. The managers' decision needs to consider the purposes the organization wants to target through VSN. For example, organizations targeting information purposes might be more successful on Social VSNs (as has been demonstrated). The targeted benefits and targeted contacts are also crucial.

The findings of this study could act as the initial trigger for organizations to get active in VSN in the right direction. It is clear that thorough instruction is required for all staff regarding VSN and that company size determines what purpose the organization is targeting through VSN. The findings also provide scope for deeper analysis. Companies

that had a corporate VSN account have been maintaining it in most cases for between 1 and 3 years and update it daily under social media guidelines (introduced by 69% of organizations in the survey). This shows how recent the use of VSNs in the business context actually is. Accordingly, there is not much scholarly research that could be compared with this present study. Consequently, this study can be taken as a pilot study and guide for following projects, defining relations and associations.

This research has provided an overview of the current state of VSNs in the business context. The power of VSNs nowadays was illustrated by the finding that 87.7% of respondents regard them as a serious business tool. This combined with the fact that the managerial level is using VSNs in the business context should make clear the potential of VSNs to current and future business leaders. Many organizations' managers have identified this, and 35.35% of organizations surveyed were planning to introduce the usage of VSNs. Current VSN features identified and used were predominantly a) advertising (68.1%) and b) information purposes and PR (56.9%), with the targeted contacts principally potential and existing customers. The literature review conducted in Chapter 2 shed light on HR recruitment as a promising feature on VSNs whose full potential might not have been exploited yet – the survey found only one-third of respondents were using HR recruiting as one of the numerous features that are offered on VSNs as laid out in section 2.4. Interestingly, only 13% of companies have explored the distribution channel ("Buy-Button") that can be implemented and fully exploited in common VSNs such as Facebook. Surveyed organizations not using VSNs identified security reasons such as cyber bullying and cyber stalking (51.6%) as well as privacy issues and data leakage (44.7%) as the main issues. These threats warrant the attention of future research in order to control and avoid them as they may hamper business. The author believes that the findings of this study can inform workplace arrangements and expectations in the VSN context.

It should be recalled that Facebook has over 800 million users, most of whom are mid-career or younger. Hence, organizations can simply make use of their staff's existing VSN skills without using resources for training. In fact, the researcher suggests companies use these skills wisely and exploit them for improved workplace collaboration among the employees and in particular knowledge sharing. Users are able to maintain their private accounts on Facebook and other networks by updating them and putting up new information and pictures to keep their friends and family up to date.

It can be assumed that the employees can do the same at work, namely taking their skills and employ them in order to spread information and coordinate work in a timely and efficient manner. It can be assumed that there is vast potential for saving resources since the traditional way of emailing up and down the firm hierarchy could be avoided and with it a substantial amount of resources in manpower and costs. Further, it enhances knowledge-management performance in that employees see unmet needs for information and try to meet them by providing information when they get to know that certain information is needed. The pace of information spread and coordination of work are crucial here. Thus, the researcher suggests using that potential and recommends organizations exploit their staff skills and let them contribute to the organization's performance by means of VSN usage, e.g. contribution to intranet-based VSNs.

The findings of this study and the literature review confirm that staffs, even when they are not officially encouraged or permitted to use VSNs, nevertheless still use them. In fact, one-third of respondents used Facebook at work without permission. Instead of wasting time and staff resources, the management could exploit the staff's skills on Facebook. However, it should be noted that the privacy issue must still be considered.

The findings clearly indicated that all participating senior executives use VSNs for business purposes. This means that leverage of VSNs is in the senior executives' hands, who need to implement and fully understand and exploit the power of VSNs by embedding them in their corporate culture. Top management are currently conscious of VSNs, and that is the best condition to take it further.

In order to eradicate management concerns about security issues such as cyber bullying and cyber stalking, there is a way to promote VSN through private set-up sites with internal databases, chat integration, material search and other features that publicly accessible VSNs offer. The company can then keep full control while aiming for efficiency and workplace collaboration and invite outsiders or make content available to the public if desired (Griffith, 2011).

Another important aspect for a successful launch of an account with a VSN, whether internal or external, is consistent guidelines for employees that are in charge of maintaining the VSN, as discussed in section 2.3.6. This should include training designated employees in regards to the proprietary rights and confidential information of the company. A conceptual approach to convert that into a regulated system will

involve many departments – ideally IT, HR, PR and marketing – to cover all areas of interest to the organization. As the involvement of suitable departments in VSN has not received enough attention to date, the researcher recommends that future research addresses this important area (Majchrzak et al., 2009; Viswanathan & Manohar, 2009). Thorough communications surrounding the launch of working with VSN are crucial in order for employees to work with it and include it in their work routines. The communications should cover aims such as product idea brainstorming or team collaboration.

As stated earlier, there is a lack of formal guidelines for the adoption of social networking tools for business purposes, triggering risks of security and improper involvement in business processes. Brodtkin (2011) suggested that organizations implement formal governance structures and secure IT department involvement to ensure that VSN software goes hand in hand with the goals, standards and policies of the company in order to avoid mistakes. He added that businesses need to conquer cultural issues and create awareness of behaviour in a public space with employees.

As the literature review confirmed, VSN HR recruiting is broadly employed and has been successful as the prime example of LinkedIn demonstrates. However, a remaining issue are gaps in the law that are misused by HR staff when hiring people. Brown and Vaughn (2011) and Kaupins and Park (2011) have provided primary guidelines and implications for how to approach this issue, including the discussion of legal and ethical implications, as explained in section 2.4.1. There is scope for research in that field but the basics have been established and ought to be built on.

The findings of this study show that non-profit organizations (NPOs) are more likely to use VSNs for business purposes than other organization types. This is easy to comprehend when considering the characteristics of VSNs. As a cost-efficient and easy-to-administrate tool, NPOs can use VSNs to spread their messages and work cost-effectively and speedily to reach many prospective stakeholders. More NPOs should become aware of what is possible when using VSNs for their purposes.

The findings indicate that acting on a VSN with a corporate account can benefit both the marketer as well as the customer (Jansen et al., 2009). As Chapter 2 identified, Twitter is the most used VSN at work for business purposes – this underscores the power a VSN can have in today's world. The results showed that 15.1% of respondents were

maintaining a corporate account with a Social VSN whereas 13.1% of respondents are maintaining a corporate account with a professional VSN. Small- and medium-sized enterprises (SMEs) were the most advanced in exploiting VSNs for business purposes, actively practising competitor analysis and creating innovation potential through knowledge sharing. This translates to success within this organization size and should be promoted.

As explained in Chapter 4, the findings of this study cannot be generalized to the whole population. Another area for future research is to investigate the whole context of social media (such as blogs and sharing platforms) in order to show how powerful these tools can be and to analyse how they can be developed to a professional level without the weaknesses as identified in this project (e.g. privacy issues). This research examined the use of VSN sites for business purposes in the scope of a dissertation. Examining datasets from the perspective of companies and their staff, this research has shed light on critical aspects of the phenomenon VSNs in the workplace as a business tool, surveying a reasonable sample of 337 respondents with an extensive questionnaire before analysing the results via quantitative analysis.

Although the findings may not be generalizable to the whole population, they can be regarded rather as testing for associations within the sample population. Based on the demographics of this project's sample (identified in section 4.7.1), it can be argued that similar results would be expected when targeting the whole population and hence, the results could be reasonably generalized. Additionally, as justified in section 4.8, it should be recognized that the chosen combination of snowball and convenience sampling is an ideal sampling method to get responses from individuals as they most likely access such online tools.

While there appears to be no other scholarly studies whose research outcomes could be compared with those of this study, the researcher will nevertheless compare demographics of this study's sample with those of whole population to judge whether the results are a fair representation of the general business environment.

As Figure 6 showed, there was an uneven distribution of participants. Two-thirds of participants were aged between 20 and 30. This reduces the possibility for generalization to the whole population as staff in general business environment would be dispersed much more evenly in regards to their age. On the other hand, it may be that

particular people employed between 20 and 30 extensively use and try to use and incorporate VSNs for business purposes. This was in fact confirmed by the literature review revealed that up to 35 age group is the greatest user of VSNs (section 2.2.1). Nevertheless, the population pyramid needs to be considered with regard to the sample. The territorial origin of respondents was not considered in this study – this would be another point for improvement for future research.

The company-size pattern seems representative to the researcher and could be generalized to a certain degree to the whole population. Although over half of respondents worked in large-scale companies, one-third worked in SMEs and only 15% worked with a sole trader, this is regarded as a normal distribution for a sample. Logically, more people would be employed with large-scale companies than SMEs as they can employ more staff. Consequently, more people from large companies would participate in such a study. This demographic can be generalized to the population as it would be expected to follow a similar pattern in the business world.

The industry demographic was strongly dominated by participants from Professional, Scientific and Technical Services, Information, Media and Telecommunications, and well as Education and Training. This could be regarded as slightly one-sided. On the other hand, the study has not been restricted to specific industries on purpose to give it the opportunity to get the widest range of participants from diverse industries. Hence, this sample developed naturally (despite snowball sampling) and was not biased or aimed to reach only certain industries. Such a pattern could be expected in the business environment and thus could be generalized to the population as a random sample is expected to deliver a similar result of industry pattern. It should be noted that Professional, Scientific and Technical Services accounted for a big part of the industries because it covers a wide range of services. The researcher also assumed that staff from Information, Media and Telecommunications would tend to use VSNs and hence be prepared to fill in a survey on the topic. The distribution is confirmed by the fact employees in the Health Care and Social Assistance and Industrial Goods and Services industries were slightly less likely to use VSNs for business purposes than the average (see section 5.3.1). Consequently, it is likely that fewer people from those industries would have answered the survey as they were less likely deal with VSNs. It should be noted that the survey was mainly spread through VSNs. As a result, smaller amounts of participants from those industries are shown in Figure 8.

The job level (position) demographic was not restricted to any criteria and therefore the distribution in Figure 9 can be regarded similar to the business environment in general. Naturally, the major part is built up by Professionals. Interns, Entry Level and Managers have similar shares – that can also be regarded as normal. As would be expected, Executives and Senior Executives have the smallest shares. To sum up, the job-level demographic in this study shows a normally expected distribution compared to the population in a working environment.

The last demographic, enterprise type, shows no noticeable shares that would not have been expected. As expected, the majority of enterprises were privately-held and publicly-held companies. Hence, a substantial amount of participants responding the survey would be working for them. Thus this demographic is expected to be similar to the whole targeted population in the business environment.

To sum up, the above discussion on demographics has shown that three out of the five demographics considered are representative and can be reasonably generalized to the whole population to a certain degree. However, due to the hybrid sampling method used in this study, this research should be seen as testing for associations within the sample which could serve as a pilot study for further projects. It should be restated that the hybrid sampling method provided the seemingly most appropriate method to obtain responses from participants.

6.3 Limitations and Future Research

Due to constraints of budget, time and the scope of this research, a few limitations were identified during the study and are presented in the following paragraphs.

As pointed out in section 6.2, the “country” demographic should be included in future research. The distribution of the participants’ age could then be compared to the country’s population pyramid and analysed and explained in detail. Alternatively, the research could use continents instead of countries, for transparency purposes.

In order to generalize to the whole population in the business context, future research should use a random sampling method (probability sampling method) to achieve non-biased results, which were not achieved in this study. For statistical representation purposes, any future study should aim for a sample of 1,000 people at minimum.

To document the analysis of cross-member communication in VSN, netnography could have been applied as a suitable methodology to get insights into members' contributions (e.g. opinions, motives, concerns), enabling the researcher to collect unveiled data in an unobtrusive way (Langer & Beckman, 2005). This justifies the application of such a tool (e.g. Leximancer, NVivo) in future research to obtain qualitative and quantitative data from content studies of online communication. NVivo and Leximancer are software programs that process non-numerical unstructured data indexing searching and theorizing (Bryman & Bell, 2007). As Langer and Beckman (2005) showed, it is usually challenging to collect data from consumers (in this case professional members) as informants for research purposes. Hence, netnography might be a suitable means to circumvent this obstacle.

6.4 Chapter Summary

This chapter began by discussing the general context of VSNs, reviewed the state of their use in business and narrowed down to a particular problem – the business features of VSNs. The findings of this study were drawn from cross-tabulation of circumstances of the companies surveyed and their business features. However, these findings probably have relevance to the broader context in which the phenomenon is embedded, i.e. social media applications in general. As stated, there is scope to research deeper into the field of VSNs for business purposes.

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Appendices

Appendix A

The Use of Virtual Social Networking for Business Purposes

Dear Sir or Madam,

My name is Sebastian Regber. As part of my research project at the Faculty of Business at AUT University Auckland, I am conducting a survey on the use of virtual social networks in the workplace.

The aim of the study is to derive potential for improvement and implementation of virtual social networks as a daily tool for business purposes with any stakeholder.

Completion of this questionnaire is limited to those of 20 years of age or above and to be either employed with an organization or self-employed. It does not matter what kind of organization it is and what level you are occupied in.

This questionnaire is intended solely for research purposes and will take approximately 10 minutes. There are no costs associated with it.

The collected information you provide will be kept confidential according to the Terms and Conditions set out in the Participant Information Sheet. The Participant Information Sheet can be fully viewed [here](#).

Consent Form (full details [here](#))

I have read and understood the information provided about this research project in the Participant Information Sheet dated 2nd May 2011.

I have had an opportunity to ask questions and to have them answered.

I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.

If I withdraw, I understand that all relevant information will be destroyed.

I agree to take part in this research. To receive a copy of the report from the research please email terry.nolan@aut.ac.nz

I have read and understand the above consent form, I certify that I am 20 years old or older and, by clicking the "Next" button to enter the survey, I indicate my willingness voluntarily take part in the study.

Approved by the Auckland University of Technology Ethics Committee on type the date on which the final approval was granted AUTEK Reference number 11/81

There are 20 questions in this survey

PART A General Information

1 [AGE] What is your age? *

Please choose **only one** of the following:

☐ under 20

☐ 20 to 25

☐ 26 to 30

☐ 31 to 35

☐ 36 to 40

☐ 41 to 45

- ☐ 46 to 50
- ☐ 51 to 55
- ☐ 56 to 60
- ☐ 61 to 65
- ☐ 66 to 70
- ☐ 70 and above

2 [SIZE] What is the size of the organization you are working for? *

Please choose **only one** of the following:

- ☐ Sole trader (1 to 5 employees)
- ☐ Small- and medium sized enterprise (6 to 50 employees)
- ☐ Large-scale enterprise (more than 50 employees)

3 [IND] Which industry is the organization involved in? *

Please choose **at most 3** answers:

- ☐ Academia
- ☐ Accounting
- ☐ Aerospace
- ☐ Agriculture
- ☐ Airlines
- ☐ Alternative Medicine
- ☐ Apparel AND Fashion
- ☐ Architecture AND Planning
- ☐ Arts AND Crafts

- ☐ Automotive
- ☐ Banking
- ☐ Biotechnology
- ☐ Broadcast Media
- ☐ Building Materials
- ☐ Business Supplies AND Equipment
- ☐ Chemicals
- ☐ Civic AND Social Organizations
- ☐ Civil Engineering
- ☐ Civil Service
- ☐ Composites
- ☐ Computer AND Network Security
- ☐ Computer Games
- ☐ Computer Hardware
- ☐ Computer Networking
- ☐ Computer Software
- ☐ Construction
- ☐ Consulting
- ☐ Consumer Electronics
- ☐ Consumer Goods
- ☐ Consumer Services
- ☐ Cosmetics

- ☐ Day care
- ☐ Defence OR Military
- ☐ Design
- ☐ E-learning
- ☐ Education
- ☐ Electrical Engineering
- ☐ Energy
- ☐ Entertainment
- ☐ Environmental Services
- ☐ Events Services
- ☐ Facilities Services
- ☐ Facility Management
- ☐ Financial Services
- ☐ Fishery
- ☐ Food
- ☐ Fundraising
- ☐ Furniture
- ☐ Gardening OR Landscaping
- ☐ Geology
- ☐ Glass AND Ceramics
- ☐ Graphic Design
- ☐ Health AND Fitness

- ☐ Hospitality
- ☐ Human Resources
- ☐ Import AND Export
- ☐ Industrial Automation
- ☐ Information Services
- ☐ Information Technology AND Services
- ☐ Insurance
- ☐ International Affairs
- ☐ International Trade AND Development
- ☐ Internet
- ☐ Investment Banking
- ☐ Journalism
- ☐ Legal Services
- ☐ Leisure AND Travel AND Tourism
- ☐ Libraries
- ☐ Logistics AND Supply Chain
- ☐ Luxury Goods AND Jewellery
- ☐ Machinery
- ☐ Management Consulting
- ☐ Maritime
- ☐ Market Research
- ☐ Marketing AND Advertising

- ☐ Mechanical OR Industrial Engineering
- ☐ Media Production
- ☐ Medical Devices
- ☐ Medical Services
- ☐ Medicinal Products
- ☐ Metal OR Metalworking
- ☐ Metrology OR Control Engineering
- ☐ Mining AND Metals
- ☐ Motion Pictures
- ☐ Museums AND Cultural Institutions
- ☐ Music
- ☐ Nanotechnology
- ☐ Non-Profit Organization
- ☐ Nursing AND Personal Care
- ☐ Oil AND Energy
- ☐ Online Media
- ☐ Outsourcing OR Off shoring
- ☐ Packaging AND Containers
- ☐ Paper AND Forest Products
- ☐ Pharmaceuticals
- ☐ Photography
- ☐ Plastics

- ☐ Politics
- ☐ Print Media
- ☐ Printing
- ☐ Process Management
- ☐ Professional Training AND Coaching
- ☐ Psychology OR Psychotherapy
- ☐ Public Health
- ☐ Public Relations AND Communications
- ☐ Publishing
- ☐ Railroad
- ☐ Real Estate
- ☐ Recreational Facilities AND Services
- ☐ Recycling AND Waste Management
- ☐ Renewable AND Environment
- ☐ Research
- ☐ Restaurants AND Food Service
- ☐ Retail
- ☐ Security AND Investigations
- ☐ Semiconductors
- ☐ Shipbuilding
- ☐ Sports
- ☐ Staffing AND Recruiting

- ☐ Tax accountancy OR Auditing
- ☐ Telecommunication
- ☐ Textiles
- ☐ Theatre OR Stage OR Cinema
- ☐ Timber
- ☐ Traffic Engineering
- ☐ Translation AND Localization
- ☐ Transport
- ☐ Venture Capital AND Private Equity
- ☐ Veterinary
- ☐ Welfare AND Community Health
- ☐ Wholesale
- ☐ Wine AND Spirits
- ☐ Writing AND Editing
- ☐ Other:

4 [JOB] At what level is your job currently? *

Please choose **at most** 1 answer:

- ☐ Student OR Intern
- ☐ Entry Level
- ☐ Professional / Experienced
- ☐ Manager (Manager, Supervisor)

- ☐ Executive (VP, SVP, etc.)
- ☐ Senior Executive (CEO, CFO, President)

5 [ORG] What type of organizations are you working for? *

Please choose **at most** 1 answer:

- ☐ Publicly held company
- ☐ Privately held company
- ☐ Non-profit organization
- ☐ Business partnership
- ☐ Individual enterprise
- ☐ Freelance

PART B Usage of Virtual Social Networks

6 [USE] Do you use any publicly accessible virtual social networks (VSN) for business purposes in connection with your job? *

Please choose **only one** of the following:

- ☐ Yes
- ☐ No

7 [VSN] Which VSN are you mainly using at work? *

Please choose **at most** 4 answers:

- ☐ Internal company VSN
- ☐ Facebook
- ☐ Twitter
- ☐ Myspace.com

- ☐ LinkedIn
- ☐ Ning
- ☐ Tagged
- ☐ Classmates.com
- ☐ Hi5
- ☐ Myyearbook
- ☐ Meetup
- ☐ Bebo
- ☐ Mylife
- ☐ Friendster
- ☐ Myheritage
- ☐ Multiply
- ☐ Orkut
- ☐ XING
- ☐ Talkbiznow
- ☐ Windows Live Spaces
- ☐ Ryze
- ☐ Present.ly
- ☐ Meettheboss
- ☐ LinkExpats
- ☐ HR.com
- ☐ Focus.com

☐ Fledgewing.com

☐ Other:

8 [ALW] Does the organizations you work for officially permit / encourage the application of any VSN for business purposes? *

Please choose **only one** of the following:

☐ Yes

☐ No

9 [ACC] Does your organization currently have an account with any publicly accessible VSN, e.g. Facebook or Twitter? *

Please choose **only one** of the following:

☐ Yes

☐ No

PART C Specified to Users

10 [LONG] How long has your organization had this account for? *

Only answer this question if the following conditions are met:

° Answer was 'Yes' at question '9 [ACC]' (Does your organization currently have an account with any publicly accessible VSN, e.g. Facebook or Twitter?)

Please choose **at most 1** answer:

☐ Up to 1 year

☐ 1 to 3 years

☐ more than 3 years

11 [PURP] What does your organization use the account for? Please add any comments that give more detail about the options given. *

Only answer this question if the following conditions are met:

° Answer was 'Yes' at question '9 [ACC]' (Does your organization currently have an account with any publicly accessible VSN, e.g. Facebook or Twitter?)

Please choose **all** that apply:

- ☐ Recruiting
- ☐ Advertising
- ☐ Customer satisfaction analysis
- ☐ Building Relationships with stakeholders (improvement of communication and collaboration)
- ☐ Market Research (competitor analysis)
- ☐ For information purposes (communications/PR)
- ☐ Improving Reputation
- ☐ Innovation potential through knowledge sharing
- ☐ Support creation of brand communities (brand engagement)
- ☐ Distribution Channel
- ☐ Increase customer engagement
- ☐ Employee Engagement
- ☐ Customer Service
- ☐ Product Development
- ☐ Investor relations
- ☐ Other:

12 [CONT] Who is your organization aiming to contact through this medium? *

Only answer this question if the following conditions are met:

° Answer was 'Yes' at question '9 [ACC]' (Does your organization currently have an account with any publicly accessible VSN, e.g. Facebook or Twitter?)

Please choose **all** that apply:

- ☐ Suppliers
- ☐ Potential customers
- ☐ Existing Customers
- ☐ Employees
- ☐ Other branches (e.g. overseas)
- ☐ Team members
- ☐ Other:

13 [UPDA] How often does your organization update the account / public profile? *

Only answer this question if the following conditions are met:

° Answer was 'Yes' at question '9 [ACC]' (Does your organization currently have an account with any publicly accessible VSN, e.g. Facebook or Twitter?)

Please choose **at most** 1 answer:

- ☐ Hourly
- ☐ Daily
- ☐ Weekly

☐ Fortnightly

☐ Monthly

☐ Never

14 [GUID] Are there any guidelines for employees who are in charge for managing the account / public profile (what to put on, news feed etc.)? *

Only answer this question if the following conditions are met:

° Answer was 'Yes' at question '9 [ACC]' (Does your organization currently have an account with any publicly accessible VSN, e.g. Facebook or Twitter?)

Please choose **only one** of the following:

☐ Yes

☐ No

15 [BEN] What kind of benefits do you personally see in using public VSNs for your organization? *

Only answer this question if the following conditions are met:

° Answer was 'Yes' at question '9 [ACC]' (Does your organization currently have an account with any publicly accessible VSN, e.g. Facebook or Twitter?)

Please choose **all** that apply:

☐ Provide a quick way to communicate

☐ Promote informal communication

☐ Help build friendships and strengthen relationships

☐ Knowledge sharing

☐ Collaboration among employees

☐ Other:

PART D Users and Non-Users VSN

16 [TOO] From the organization's perspective, do you think that public Virtual Social Networks can be used seriously for business purposes?

*If NO, please indicate why. **

Please choose **at most** 1 answer:

- ☐ YES
- ☐ NO, because:

17 [REA] What reasons can you see for NOT using public VSNs from the perspective of your organization? *

Please choose **all** that apply:

- ☐ Security reasons / Cyber bullying / Cyber stalking
- ☐ Own internal network that is regarded as sufficient
- ☐ Too trivial / Brand Credibility
- ☐ Regarded for other purposes, e.g. social media among friends
- ☐ Privacy issues /Data Leakage
- ☐ Loss of productivity
- ☐ Other:

18 [DIS] Have you discussed using public VSNs with the organization's management? *

Please choose **at most** 1 answer:

- ☐ Yes

☐ No☐ I do not know

19 [FUT] Is your organization planning to use any accounts / public profiles with VSNs in the near future? *

Please choose **at most** 1 answer:

☐ Yes☐ No☐ I do not know

20 [IMP] What kind of improvements and/or additions would have to be made to VSNs for you to consider using them for wider business purposes?

Please write your answer here:

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I am grateful for the time and effort you have put up to fill in this survey. It is highly appreciated.

Best Regards,

Sebastian Regber

-Postgraduate Student in Business-

Dr Terry Nolan

-Project Supervisor AUT University-

Please fax your completed survey to: +4932121132315

Thank you for completing this survey.

Appendix B



MEMORANDUM

Auckland University of Technology Ethics Committee (AUTEC)

To: Terry Nolan

From: **Dr Rosemary Godbold and Madeline Banda** Executive Secretary, AUTEC

Date: 8 June 2011

Subject: Ethics Application Number 11/81 **The use of virtual social networking for business purposes.**

Dear Terry

Thank you for providing written evidence as requested. We are pleased to advise that it satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC) at their meeting on 11 April 2011 and that on 24 May 2011, we approved your ethics application. This delegated approval is made in accordance with section 5.3.2.3 of AUTEC's *Applying for Ethics Approval: Guidelines and Procedures* and is subject to endorsement at AUTEC's meeting on 27 June 2011.

Your ethics application is approved for a period of three years until 24 May 2014.

We advise that as part of the ethics approval process, you are required to submit the following to AUTEC:

- A brief annual progress report using form EA2, which is available online through <http://www.aut.ac.nz/research/research-ethics/ethics>. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 24 May 2014;
- A brief report on the status of the project using form EA3, which is available online through <http://www.aut.ac.nz/research/research-ethics/ethics>. This report is to be submitted either when the approval expires on 24 May 2014 or on completion of the project, whichever comes sooner;

It is a condition of approval that AUTECH is notified of any adverse events or if the research does not commence. AUTECH approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are reminded that, as applicant, you are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

Please note that AUTECH grants ethical approval only. If you require management approval from an institution or organization for your research, then you will need to make the arrangements necessary to obtain this. Also, if your research is undertaken within a jurisdiction outside New Zealand, you will need to make the arrangements necessary to meet the legal and ethical requirements that apply within that jurisdiction.

When communicating with us about this application, we ask that you use the application number and study title to enable us to provide you with prompt service. Should you have any further enquiries regarding this matter, you are welcome to contact Charles Grinter, Ethics Coordinator, by email at ethics@aut.ac.nz or by telephone on 921 9999 at extension 8860.

On behalf of AUTECH and ourselves, we wish you success with your research and look forward to reading about it in your reports.

Yours sincerely

Dr Rosemary Godbold and Madeline Banda

Executive Secretary

Auckland University of Technology Ethics Committee