CHAPTER 1: INTRODUCTION

This study is based on studying the influencing factors of knowledge sharing and community promotion in VCoPs. In this chapter, initially an introduction is given about knowledge, knowledge management, knowledge management practices and its importance for organizations. Then the concepts of communities and virtual communities are introduced. A brief introduction of communities of practice and how it advanced to virtual communities of practice is given. The motivations behind this study, its objectives and relevance are presented. Finally, the organization of all the chapters is given.

1.1 Knowledge and Knowledge Management

The word ‘Knowledge’ has been interpreted and defined in many ways. It is connected to words like data, information, skill, intuition, expertise and experience. Plato stated that knowledge is the justified true belief of an individual. Nonaka & Takeuchi (1995) defined knowledge as a personal justifying belief toward the truth which is a dynamic human process. Knowledge consists of our generalizations, presumptions and understandings which we may have with us permanently or temporarily. We use this knowledge to interpret and manage the world around us. As per the standard definition found in English language dictionaries, knowledge is an understanding based on experience. Knowledge is the information that changes someone or something by becoming grounds for effective action. Albrecht (2003) distinguished knowledge and its raw materials - data and information. He stated that data is the lowest level raw material, almost like a physical substance, which can be stored, moved around, and manipulated, whereas information is an arrangement of data so that it is meaningful, in some particular context. He added that knowledge is the consequence of engaging information in our minds.
Management as a discipline is concerned with formulating a corporate policy and organizing, planning, controlling and directing the assets of the organization to achieve the policy objectives. There may be just one manager in small organizations or even thousands of managers in multinational companies. Darroch (2003) defined knowledge management (KM) as the process of locating desired knowledge, acquiring or creating the needed knowledge and sharing the knowledge for use within and between organizations. Two different types of knowledge are defined- explicit and tacit knowledge. Codified knowledge found in documents, reports, databases, etc make up explicit knowledge. Tacit knowledge refers to non-codified and often personal/experience-based knowledge, which reside in the minds of the people. There are different methods to convert the tacit knowledge residing in the minds of people into explicit knowledge, which can be easily understood and used by others. They include personal interactions, discussions and training. There are two broad groups of knowledge management theories- hard and soft. Theories which deal with technology are called hard theories and those dealing with the human aspect in KM are called soft theories. In hard theories knowledge management is an advanced level for discussing technology, research and development (R&D), data mining, innovation or knowledge discovery from databases, management information systems, information technology systems, decision support systems or knowledge repositories. Hard theories hold the basic assumption that data emerges from events, and information from data and finally knowledge from information. Knowledge is created from insights generated by extracting useful information from data. KM also helps in accelerating the flow of knowledge and storing and disseminating this knowledge. Taking this view, knowledge management can be considered as an information technology (IT) based management system.
In soft theories, KM focuses on people and many researchers have concentrated on this human aspect of knowledge management (Nonaka, 1994; Sveiby, 1997; Wenger, 1998). In this approach, more importance is given to tacit or implied knowledge, also called as Know-how. Unlike explicit knowledge, tacit knowledge is hard to formulate and share. Soft theory suggests that knowledge is stored inside people and knowledge creation can be done only through social interaction (Zack, 1999). In an organization, KM seeks to mobilize personal knowledge and efficiently manage existing organizational knowledge, so as to achieve organizational objectives. KM helps organizations to create, share and make the best use of their intellectual assets.

1.2 Knowledge Management Practices

Knowledge management practices are the activities organizations should employ to effectively manage and use knowledge. Many researchers have proposed different sets of KM processes but the basic principles remain the same. Training, brainstorming sessions, personal interactions and group activities are all sources for generating knowledge and these activities help in proper development and utilization of knowledge.

Delphi (1998) proposed four key knowledge management practices, capturing, sharing, leveraging and feeding. Capturing deals with obtaining external knowledge and creating knowledge by research or experience. Sharing enables people in the organization to access knowledge anytime and anyplace. Leveraging is concerned with converting knowledge into a product or service. In the feeding process, knowledge is embedded in products to increase value. Demarest (1997) divided knowledge management practices into construction, embodiment, dissemination, and use. Construction refers to discovering new knowledge. Embodiment is a method of storing knowledge in some container of choice. Dissemination refers to the process by which knowledge is made available to the people within the organization and use refers to the ultimate objective of any knowledge management system. Darroch (2003) categorized KM
practices into three - knowledge acquisition, dissemination and responsiveness. The process by which knowledge is created, located or discovered is known as knowledge acquisition. Although most knowledge is sourced internally, knowledge can also be acquired from external sources. Internal knowledge is that knowledge which is acquired from those inside the organization and it would reflect the skills and experiences of the employees. Externally knowledge could be acquired through an organization’s relationship with its customers or suppliers. Knowledge may also be linked to information related to the financial status, competitors, industry trends or technology development. Knowledge dissemination involves sharing knowledge around the organization. Responsiveness to knowledge means that the organization responds to the different types of knowledge it has access to, by applying or using the knowledge for organizational benefit. So it can be seen that even though the classifications are different, the principles remain the same. An organization has to understand its knowledge requirements, find the required knowledge or create it, store it, share it and make use of it.

1.3 Importance of Knowledge Management to Organizations

To perform better, any individual or a group like an organization needs to have good knowledge about the entities with which they interact. The entity may be an individual, a group, organization, task, activity, process, resource or product. Knowledge is now widely recognized as a critical organizational resource for any organization from any economic sector (Davenport & Prusak, 1998). The value of knowledge should be maximized by leveraging and sharing it throughout the organization. For doing this, the organization must have an adequate understanding of how to leverage knowledge for its benefit. An information system (IS) collects, stores, processes and communicates information. With the help of technological systems, Knowledge Management (KM) adds value to the business by taking advantage of its expertise and know-how (Sharratt & Usoro, 2003). KM focuses not only on daily operations but also tries to improve the way in which business functions by developing expertise and creativity and this
helps companies to evolve and grow. KM seeks to effectively harness IS to achieve the goal of maximizing the value of an organization's knowledge base.

1.4 Communities and Virtual Communities

The Oxford dictionary has defined ‘community’ as people living in the same place and having a common characteristic. When communities are formed in an online platform, it’s known as a virtual community, and it enables individuals who have same interests to talk and build relationships (Hagel & Armstrong, 1997). The concept of communities has been the central theme of the Internet since its beginning (Hagel & Armstrong, 1997). Virtual communities have also been defined as people who come together and communicate frequently with each another in an organized way having some similar interests or practices (Ridings et al., 2002). Virtual communities can be used to share and gain knowledge using the electronic media (Dennis et al., 1998). Newsgroups like Usenet were the first form of virtual communities developed on the web (Ridings & Gefen, 2004). Presently there are a vast number of virtual communities distributed globally. Kim & Jin, (2006) stated that virtual communities are very popular with millions of people around the globe regularly using it.

1.5 Communities of Practice and Virtual Communities of Practice

The relationships which exist between the members make up the network or the community. Practices are the standard ways of doing a particular work or task (Lin & Lee, 2006). According to Wenger (1999), people with common goals who join with each other to share professional knowledge or practices are called as a community of practice (CoP). According to Hoffman et al., (2005), organizations making use of communities of practice were found to have a competitive advantage over others by managing the knowledge of their employees. CoP helps in creating relationships between experts who have practical knowledge about a subject which is of
interest to other members of the community. Transfer of knowledge and continuous survival of a community depends on the social relationships which exist between the members of a community (Jin et al., 2010). It is a strategy employed by businesses to assist their employees in getting the required information. In a CoP, practitioners have access to knowledge, and they can also contribute and become producers of knowledge.

But a CoP depends on direct communication and hence it is bounded by geography, and there is no efficient method of communication. Members from different locations could not properly benefit from the dispersion of knowledge within the community (Jin et al., 2010). The medium employed for communication and knowledge sharing is a direct person to person interaction and conversation. All these reasons limited the scope of communities of practice as it was applicable only to the immediate geographical locations (Jin et al., 2010). But with the growth of the internet, and the increased growth, significance and popularity of communities of practice, the concept of VCoP was born. Such online communities of practice are called Virtual communities of practice (VCoPs) (Lewis et al., 2010). Internet technologies offered better ways of undertaking communication despite vast geographical distances. The Internet drastically improved the scale and scope of CoPs which could now take advantage of high collaboration speeds. The Internet also allowed users to transmit knowledge, research, data, and practical experience more quickly (Lewis et al., 2010). People from different parts of the globe could now meet and share knowledge due to the ubiquitous nature of the internet. Such interactions allowed communities to share knowledge quickly and more efficiently.

In India and around the world, VCoPs are not limited to any area or industry. Organizations launch VCoPs as they feel that their employees need a central platform to communicate and
share knowledge in any functional area. When employees solve problems and get answers to their questions, their efficiency in the job increases (Lane & Lubatkin, 1998). Employees resolving the problems in assigned job tasks, would, in turn, be beneficial to the organization. Organizations are using social networking sites as platforms for hosting their communities. Bughin et al., (2011) referred the McKinsey report on organizations on how CoPs use social tools and technologies and highlighted the steady increase of these platforms since 2008.

There are mainly two methods by which VCoPs are created - spontaneously and intentionally. In this study, focus is kept on VCoPs, which are intentionally set up by an organization to help its employees, who may be geographically scattered, to come together and share their ideas and knowledge. Such VCoPs are also called sponsored VCoPs. The top management launches a VCoP, defines its purpose and selects the key members. This approach is called the top-down approach. VCoPs can also emerge spontaneously by a group of interested members who create it, which is the bottom-up approach (Fontaine, 2001). Management may also take charge of a VCoP, which was initially formed by a group of members. The purpose of any VCoP is to build relationships and share knowledge between its members.

The social relationships which exist between the members of a community helps in knowledge sharing, and continuous knowledge sharing would keep the community alive (Jin et al., 2010). In the VCoPs that are set up by organizations, participation and contribution of members are voluntary. Each VCoP would deal with a particular set of tasks or a particular skill. Employees may receive advice or help on how to troubleshoot a problem from each other. People may or may not share knowledge; they may take a passive role and not participate in the community. Butler (2001) stated that for any VCoP to survive, some kind of knowledge sharing is necessary. To share knowledge, people have to spend their time and take some effort. Why employees
would devote their time and energy in such a virtual community in which participation is voluntary, needs to be examined. Social Capital Theory (Nahapiet & Ghoshal, 1998) may be helpful in this regard. The Social Capital Theory posits that there are some social resources or capital which comes into play in any social interaction between people (Nahapiet & Ghoshal, 1998). According to the Social Capital Theory, the network of bonds within members and the resources rooted within a VCoP strongly impacts the sharing of knowledge between them (Nahapiet & Ghoshal, 1998). By forming relationships and social interactions, individuals can increase the efficiency of knowledge sharing (Lane & Lubatkin, 1998). So it's crucial to know how the different social capital dimensions influence knowledge sharing in a VCoP. According to (Algesheimer et al., 2005), for any community to survive in the long term, the community must be promoted by its members. They also defined promotion of a VCoP as the intention of members of a VCoP to recommend and persuade others to join the VCoP. Community promotion guarantees community success and propagation by recruiting new members and increasing the strength of the community.

1.6 Motivation for the study

Contribution within a community is influenced by the social relationships which are created and maintained in the community. This is the most important factor which ensures the continued survival of a community. When organizations build VCoPs, their employees are given a platform to share knowledge and exchange thoughts and build a network of trusted experts in their area. Such VCoPs are particularly useful in organizations which operate around the globe. The employees who are physically fat apart can make use of the VCoP to share knowledge quickly and easily. But, participation and contribution in such VCoPs are mostly voluntary. Instead of sharing and contributing knowledge, people may passively use the community. So it
is crucial to know how the social capital factors like trust, social interactions, identification reciprocity, shared language and shared vision influence the process of knowledge sharing in VCoPs.

Knowledge sharing requires the employees to spend their time and effort. Using Social Capital Theory, the reasons behind employees devoting their time and energy in a VCoP can be studied. The Social Capital Theory posits that there are some social resources or capital which comes into play in any social interaction between people, and that these resources influence interpersonal knowledge sharing. Employees can increase the efficiency of knowledge sharing by forming relationships by social interactions. As members in a VCoP continually interact with each other their level of trust, reciprocity, and identification may increase. It may also lead to an increase in the usage of common language phrases and jargons and they may share a common vision. So it is crucial to know how the constructs of social capital influence knowledge sharing in VCoPs.

1.7 Research Objectives

This study seeks to analyze knowledge sharing among members of VCoPs. The overall aims and objectives of this study are given below:

1. To study the impact of social capital factors (Social interactions, trust, reciprocity, identification and shared language) on knowledge collection and donation behaviors of members of a VCoP; and

2. To examine the relationship between participation (donation and collection) in a VCoP and promotion of the VCoP.
1.8 **Relevance of the study**

The study is intended to benefit the academicians and researchers and even the organizations in understanding the significance of knowledge sharing among the members of VCoPs and the possible research avenues to take up the work further. The major contributions, this study is committed to make, are segregated and shown below:

- The detailed review of literature on the various factors of social capital will give a conceptual clarity on this topic to researchers on how social capital influences knowledge sharing in VCoPs.
- Future research may use the examination of the outcome of knowledge sharing in the form of community promotion in this study as a platform.
- This study helps organizations understand the factors which influence perpetuation and knowledge sharing within VCoPs. So, the results from this study would be useful for practitioners.
- This study helps to bring out the importance of social capital in VCoPs. Encouraging these social factors by the organizers of VCoPs could result in community promotion through which the firms would benefit.

1.9 **Chapter organization and pattern**

With Chapter 1 giving an introduction to knowledge, its management and contribution to VCoPs and the role of social capital dimensions in this context, Chapter 2 summarizes the current existing literature on knowledge sharing in VCoPs. This chapter begins with past research studies carried out in the context of knowledge and knowledge management. Studies on communities and general virtual communities are reviewed, after which studies on VCoPs are thoroughly examined. Earlier studies that dealt with knowledge sharing in virtual communities
are mentioned and explained briefly. Next, relevant literature support is presented to consider knowledge sharing as having two important parts- knowledge donation and collection. The chapter ends by reviewing the literature available on social capital theory and how it can influence knowledge sharing in VCoPs.

Chapter 3 deals with the development of hypotheses along with providing support for these hypotheses from theory. The noteworthy gaps in research identified by an extensive review of literature have been highlighted. After defining and describing each construct that contributes to the development of hypotheses, relevant research reports have been mentioned to support each hypothesis. The items that make up each construct are also described. From all the hypotheses that are framed, a research model has been developed. A detailed explanation of the regression equations related to these hypotheses is presented. Finally, the endogenous and exogenous variables used in the study are listed.

Chapter 4 represents detailed research methodology followed in this study. It deals with the scale items, sample, sampling process, questionnaire development and the sample frame characteristics. The survey instrument with all the constructs and their corresponding items are detailed. This chapter describes how and to whom the questionnaire will be administered, the pre-test of the questionnaire and the participants. It ends with describing how data analysis has been carried out.

Chapter 5 deals with detailed analysis of the research data collected from the respondents. It starts with reporting the descriptive statistics and the demographic profile of the respondents. The measurement model is examined for adequate reliability and validity. The outcome of model evaluation and model fit indices are explained through confirmatory factor analyses (CFA). Structural equation modeling (SEM) results are reported along with path coefficients.
The supported and unsupported hypotheses are properly distinguished and possible reasons for those results are discussed. This chapter ends with the presentation of the finally validated research model.

Chapter 6 details the implications and future research directions of the study. The theoretical and managerial implications of this study are presented. Following this, the various directions available for further research are examined.

The summary of measures, questionnaire, descriptive statistics and normal Q-Q plots and histograms of individual items are given in the Appendices following the References part.