CHAPTER – II
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2.1 Introduction

A review of literature sets the tone and tenor of a research study. It helps the researcher to frame the research study on a chosen topic, techniques and approaches. It suggests new avenues of approaches to the solutions of a chosen problem. It is said that no research exists in isolation. A review connects the present study with the past, compares similar works, throws open different ideas of various authors, avoids duplication with earlier efforts, lays the foundations for the present research, and outlines the theoretical framework required for the research. In the context of the present study, the review does all these.

Knowledge sharing among the medical practitioners is the focus of the study. The review attempts to connect to the seminal works of the past in the area of knowledge sharing. The review examines the related literature in the fields of knowledge, knowledge management, behaviour affecting knowledge sharing and so on.

2.2 Organization of literature review

There are various ways of organising the reviews. In this thesis, the review is organised hierarchically, meaning thereby the review broader concepts related to knowledge sharing are dealt first followed by the specific concepts. As true feature in a knowledge classification, some concepts in review find themselves places in multiple subheadings. In such cases work is discussed at relevant places but with appropriate connotations required in those sections.

2.3 The notion of knowledge

What is knowledge? This philosophical question is addressed mostly by philosophers for centuries together. Librarians got interested in the field during the end of 19th century and developed schemes of library classification. It is a well-acknowledged fact that library classification has its roots strongly embedded in
knowledge classification schemes. In the context of knowledge sharing, however, the business community became particularly interested in the area by 1980s. By the end of the 20th century, there was a plethora of literature on knowledge (processes) when the companies started investing substantially in knowledge management projects in organisations.

Knowledge is an abstract concept. It is but natural to expect authors view and define knowledge from different perspectives. The meaning of knowledge varies between subject disciplines also. In spite of this, the commonly accepted and quoted hierarchy “data, information, knowledge and wisdom” has received a wide acceptance among researchers (Alavi & Leidner, 2001). It is no exception for knowledge management literature, and all of them have chosen to accept the same definition (Alavi & Leidner, 2001; Chennamaneni, 2007; Davenport & Prusak, 1998). According to Zack (1999) “Data, according to this hierarchy, represents raw numbers, objective facts and observations. It has no context and is therefore not directly meaningful. Information is the result of placing data within a meaningful context. It can be conceived as processed data with relevance and purpose”. While agreeing with the above interpretation of data and information, Alavi & Liedner (2001) defined knowledge as “validated and authenticated information that is ready to apply to decisions and actions. It includes a collection of skills, principles, insights, instincts, ideas, rules and procedures that aid in decision-making behaviour and actions”.

In spite of being popular, the hierarchical representation of the concepts – data, information and knowledge, has some critics too (Chennamaneni, 2007). It is quite interesting to observe her comments on the hierarchy. She questions the popularly held order of the concepts and advocates the reverse order of the concepts. On arguing her point, she says “knowledge must be present before information can be devised from it and before data can be collected to form information. Further, she notes that raw data do not exist since all data are influenced by knowledge processes and thoughts that lead to its identification and collection. As such, according to her, knowledge resides in individual’s minds. When individuals articulate or verbalise it giving it a structure, it becomes information. Information becomes data when it is given a fixed representation and standard interpretation”.

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Alavi & Leinder (2001) makes a clear distinction between information and knowledge. According to them, information that exists in the minds of people may be treated as knowledge. One can always question the accuracy and novelty of the knowledge as the same information held in different people’s mind may not be exactly similar. When the information is communicated or articulated in the form of texts, graphics, words and other symbols the information takes the new manifestation of knowledge.

There is no dearth of definitions for the concept of ‘knowledge’. However, in this study, the investigator has restricted herself only to those definitions which might fall in the arena of ‘knowledge management/sharing’. There are other definitions given by researchers in this area. The highly cited definition of knowledge is given by Davenport & Prusak (1998). They define knowledge as “fluid mix of framed experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information”. As a matter of interest, one can also quote here the definition of Zack (1999), and his definition of knowledge is “that which we come to believe and value by the meaningfully organised accumulation of information through experience, communication, or inference”. For the present study, the investigator goes with the popular definition given by Davenport & Prusak (1998).

2.3.1 Classifications of knowledge

Knowledge classification is not a new field of the research area. The three pillars of epistemology – Socrates, Plato and Aristotle – have carved a niche in the field of knowledge classification even before 2000 years. Among them ‘Aristotle categories’, as is popularly called, groups divide the human apprehension (knowledge) into ten categories (Irwin, 1988). It may be hypnotised that the modern concept of ‘tacit knowledge' has its roots in Plato's innate knowledge. The contribution of indexers in the field of knowledge classification is worth mentioning here. Their work on categories has attracted the attention of knowledge classifiers, librarians and indexing community alike. Some of the works in this area are from Farradane (1952), Grolier (1962), Kaiser (1911), Kyle (1958), Mills (1963) and Vickery (1958) to name a few. From Indian perspective, Bhattacharya and
Ranganathan argue that knowledge classification existed during Vedic period itself. According to them, the classification had four main categories, viz., Dharma, Artha, Kama, and Moksha. Librarians contributions to knowledge classification have been well documented in the literature. Librarians use knowledge classification (available in the form of book classification schemes or library classification schemes) with a specific purpose of arranging a library’s information resources in a systematic subject order. The major classification schemes include Dewey Decimal, Colon Classification, Universal Decimal, Subject Classification, Bibliographic Classification, and so on (Chan & Salaba, 2016). In a nutshell, one can say that the philosophers categorise the knowledge as it helps to understand the characteristics of knowledge further and deeper, and on the other hand librarians categorise the knowledge as a system of organising library books and other information artefacts. The researchers in other fields entered the arena of relatively recently.

The physical chemist and philosopher Polanyi (1958; 1967) has given the most useful categorisation of knowledge from the perspective of modern-day requirement of knowledge sharing and capturing. His categorisation has attracted many citations from the literature in knowledge management. He has been attributed for having introduced the phrase ‘tacit knowledge’ to mean the personalised and individually held knowledge as opposed to ‘explicit knowledge’ which is externally documented knowledge. Literature is available extensively which adopts this classification (Nonaka, 1994a; Omar, Syed-Ikhsan, & Rowland, 2004; Reychav & Weisberg, 2010; Smith, 2001; Spender & Grant, 1996). In his elaboration of these concepts, Nonaka (1994b) says “explicit knowledge is the knowledge that can be formalised, documented, archived, codified, and can easily be communicated or transferred between individuals. This includes theoretical approaches, manuals, databases, plans, business documents, guidelines, process models etc. Tacit knowledge, in contrast, is deeply rooted in individual’s actions, experiences, ideas, values and is far more difficult to write down or formalise”.

This distinction of knowledge is of relevance to the current study also. In this study, an attempt has been made to assess the sharing habits of medical practitioners about both tacit and explicit knowledge.
The prolific writer Nonaka (1994b) introduces another way of looking into knowledge classification. He observes that knowledge could be ‘individual’ or ‘collective’. “Individual knowledge exists in the heads of individuals, while collective knowledge exists in the collective actions of the groups and organisations” (Nonaka, 1994b). Further, he says that tacit knowledge can be grouped into ‘technical' and ‘cognitive'. "The technical component refers to "know-how” or informal personal skills of crafts, and the cognitive component refers to individual’s deeply ingrained beliefs, ideas, values, schemata and mental models. The author notes that the cognitive component, while difficult to articulate and formalise, shapes the way we see the world” (Nonaka, 1994b).

2.3.2 Perspectives on knowledge

Knowledge can be looked at from different viewpoints. It is viewed as ‘state of mind’, ‘an object’, ‘a process’, ‘a condition of having access to information’, ‘a capability’, and so on (Alavi & Leidner, 2001; Wasko & Faraj, 2000). A succinct understanding of these concepts is relevant to the present study. The knowledge as ‘state of mind’ refers to an individual’s ability to apply personal knowledge to the requirements of the organisation in which he/she is working. Knowledge can be stored, retrieved and manipulated independent of human possession and thus this can be considered as ‘an object or thing’, according to some protagonists of this theory. Contrary to this view, some researchers argue that knowledge can’t be independent of human action, it denotes the process of application of the human knowledge. The fourth view ‘condition to access’ supplements the ‘an object’ perspective with an emphasis on external storage of information with a purpose of organising and facilitating the retrieval by others. Finally, “the perspective on knowledge viewed as a capability builds on capability view and asserts that knowledge has a potential to influence future action. It theorises that knowledge can build intangible assets and intellectual capital” (Wasko & Faraj, 2005).

It may be noted here that all the perspectives have some implications in the research design of the present study at various degrees of significance.

Alavi & Leidner (2001) contend that each of the above “knowledge perspectives requires different strategies and different type of tools and technologies to manage knowledge. For instance, if knowledge is viewed as an object then
knowledge management initiatives should highlight the significance of building knowledge stocks in the organisations. Knowledge Management System such as knowledge repositories should capture this type of knowledge. Similarly, if knowledge is viewed as a process then knowledge management initiatives should focus on the flow of knowledge as in the processes of knowledge creation, knowledge sharing and knowledge distribution”.

2.4 Knowledge management

Knowledge management as a concept is widely used in business world. Its emergence is recent. The importance of knowledge for business was emphasised by the ‘business guru' Peter Drucker in mid-1960s when he said: "knowledge would replace land, labour, capital, machines, etc. to become the chief source of production" (Drucker, 1993). With the emergence of the new concept ‘knowledge management', there has been some concern among libraries and librarians as they were traditionally managing some aspects of activities concerning knowledge management.

A birds-eye-view of the literature throws a multitude of definitions for ‘knowledge management'. For instance, Rowley (1999) defines knowledge management as “Knowledge management is concerned with the exploitation and development of the knowledge assets of an organisation in furthering the organisation’s objectives. The knowledge to be managed includes both explicit, documented knowledge, and tacit, subjective knowledge. Management entails all of those processes associated with the identification, sharing and creation of knowledge. This requires systems for the creation and maintenance of knowledge repositories, and to cultivate and facilitate the sharing of knowledge and organisational learning. Organizations that succeed in knowledge management are likely to view knowledge as an asset and to develop organisational norms and values, which support the creation and sharing of knowledge.” In a similar view expressed by Alavi and Leidner (2001) knowledge management includes the acquisition, organisation and communication of both tacit and explicit knowledge.

O’Dell & Grayson (1998) define knowledge management as “Knowledge to the right people at the right time and helping people share and put information into
action in ways that strive to improve organisational performance.” Some definitions include the purpose of knowledge management (Gold, Malhotra, & Segars, 2001; Liebowitz & Beckman, 1998). Creation of new capabilities, facilitating superior performance, survival, synergistic combination of data and information are some of them.

There is a cohesive view among the authors in defining knowledge management. All of them agree that knowledge management is an essential component for organisation’s success however big or small it might be and it positively contributes to the efficiency, effectiveness and competitiveness.

Davenport, De Long and Beers (1998) have grouped the objectives of “knowledge management projects into four categories: a) to create knowledge repositories, b) to improve knowledge access and transfer, c) to enhance the knowledge management, and d) to manage knowledge as an asset.”

It may be mentioned here that the present study incorporates questions to the respondents to assess whether the four objectives are met by the behaviour of knowledge sharing among medical practitioners.

2.5 Knowledge sharing

Knowledge sharing, the focus concept of the present study, has drawn the attention of researchers since mid-1990s. “Knowledge sharing is an activity through which knowledge (namely, information, skills, or expertise) is exchanged among people, friends, families, communities (for example, Wikipedia), or organisations” (Bukowitz & Williams, 1999; Davenport & Prusak, 1998; Serban & Luan, 2002). It is not uncommon to observe in the literature the terms ‘knowledge transfer’ and ‘knowledge flows’ are synonymously used with the term ‘knowledge sharing’ (Alavi & Leidner, 2001; Gupta & Govindarajan, 2000). Gupta and Govindarajan (2000) identify knowledge flows as having five components: “value of the source knowledge, the willingness of the source to share knowledge, media richness of the communication channel, willingness of the recipient to acquire knowledge and the absorptive capacity of the recipient.” In an interesting observation, Connelly, Kevin and Kelloway (2003) point out that knowledge sharing has an element of reciprocity
whereas information sharing can happen in the unidirectional and un-requesting environment.

2.6 Factors influencing knowledge sharing behavior

There is an abundant literature on various factors affecting knowledge sharing behaviour. A few authors have attempted for a conceptual discussion of the factors (Alavi & Leidner, 2001; Davenport & Prusak, 1998; Haldin-Herrgard, 2003; Rahab & Wahyuni, 2013) The conceptual dealing of the concept is attempted by some authors (Becker, 2001; Rahab & Wahyuni, 2013). Qualitative analysis of the factors is the focus of the study by Wasko and Faraj (2000). Assessing of knowledge sharing activities was the prime concern of a few more studies (Bock, Zmud, Kim, & Lee, 2005; Constant, Kiesler, & Sproull, 1994; Jarvenpaa & Staples, 2000; Wasko & Faraj, 2005). Some factors affecting the knowledge sharing have been delineated in these studies. Chennamaneni (2007) categories the studies into those which concentrate on “soft issues (motivation, incentives, culture, personal values and self-identities, care, access to knowledgeable people) and hard issues (tools and technologies)”.

Empirical studies on assessment of factors affecting the knowledge sharing among the employees are on the rise. These studies show the influence of soft and hard factors on knowledge sharing behaviour among the employees in different sectors.

One of the sectors probed by the researchers is small and medium-sized enterprises (SMEs) and multinational companies (MNCs). In a study of SMEs of Malaysia, the multiple regression showed that there is a significant relationship between knowledge sharing and reward system, culture, trust, and technology (Alam, Abdullah, Ishak, & Zain, 2009). Knowledge sharing is a communication process. As in a typical communication, there will be some bottle-necks for knowledge sharing. In his comprehensive study Riege (2005) reviews and discusses over three dozen impediments. He categorises them into three domains: “individual/personal, organisational, and technological barriers.” He also demonstrates that there are a few differences among the SMEs and large companies, as far as knowledge sharing is concerned. This study has an implication for the present study in assessing the barriers to knowledge sharing among medical practitioners.
Knowledge sharing in academic institutes is of interest to a few researchers of the past. Incidentally, it may be noted that the present study also falls in the same domain. In a study of a private university in Malaysia, Cheng, Ho, and Lau (2009) have shown through multiple regression analysis that “incentive system and personal expectation are the two significant factors associated with the passion for sharing knowledge”. The study also provides evidence to show that there is no significant difference between external and internal factors on knowledge sharing among the academics.

Knowledge sharing among health care professionals is the focus of a few studies (Currie & Kerrin, 2003; Hara & Khe, 2007; Rangachari, 2008; Ryu, Ho, & Han, 2003). In their study, Hara and Foon Hew have studied the knowledge sharing among the nurses in a listserv. TPB model was used in the study by Ryu and Han (the present study also uses this model) and “found physicians’ subjective norm to have the strongest total effect (direct plus indirect) on their behavioral intentions to share knowledge.” The subjects of the study in Currie and Kerrin (2003) are from a global pharmaceutical company. It studied the influence of organisational structure and culture.

Knowledge sharing in an electronic network was studied by Wasko & Faraj (2005). They observe that the participants from a legal association of knowledge sharing in electronic networks are mostly unknown to one another. Obviously, in such a situation the contributor of the knowledge does not have any immediate returns or recognition. Professional reputation is found out to be one of the main motivating reasons for knowledge sharing in an electronic environment. The study employed various data collection tools such as archival, network, survey and content analysis.

An interesting finding of this study is that “individuals contribute regardless of expectations of reciprocity or high levels of commitment to the network.”

Theory of Reasoned Action (TRA) and Theory of Planned Behaviour (TPB) are the two popular theories applied by the researchers for studying the knowledge sharing behaviour. The present study also uses these. Ajzen and Fishbein (1980) have used extrinsic motivators, social forces and organisational factors along with
TRA for their theoretical study. Their study of 154 managers from 27 institutions from Korea clearly shows that the influencing factors for the intention of sharing knowledge are: attitude to share, personal traits, and organisational climate.

What factors influence the perceptions of knowledge sharing culture? This research question was taken up as the focus of the study conducted by Connelly, Kevin and Kelloway (2003). Management support, social interaction culture, size of the organisation and technology are organisational influencing factors for knowledge sharing as found out by the study. Interestingly it was found out that knowledge sharing is more prominently seen in smaller organisations than the bigger ones. The individual factors that affect knowledge sharing, according to the study, are age, gender and tenure of employment. Female respondents are less active in knowledge sharing than their male counterparts as per the findings of the study.

The role of technology in knowledge sharing has been the focus in some studies (Becker, 2001; Constant et al., 1994; Jarvenpaa & Staples, 2000; Kankanhalli, Tan, & Wei, 2005). The factors such as email, www, listservs, and network systems for sharing information was studied by these studies. Findings of Jarvenpaa and Staples (2000) study suggest that “the significant predictors of individual’s use of collaborative technology for information sharing to be task characteristics, perceived information usefulness and the user's computer comfort.” Becker’s and Kankanhalli, Tan, & Wei studies have concentrated on the role of knowledge management systems and knowledge repositories.

“The collaboration, trust, learning and centralisation affect knowledge creation and sharing process” is the outcome of the study by Lee and Choi (2003) which used the Nonaka's model. Their study emphatically study that information technology alone does not promote knowledge sharing culture, but it is the trust-based culture which plays a major role. This trust factor was also accepted by another study (Janz & Prasarnphanich, 2003). The finding says “knowledge flow in an organization depends on the trust in the organization as a whole as well as the specific individuals and suggest that organizations provide a climate of trust built on culture that encourages
and provides incentives for sharing knowledge in all its manifestations such as learning, mentoring, collaboration, sharing ideas and stories etc.”

A cross-national study of USA and China taking managers as the respondents was carried out by Chow, Deng & Ho (2000) The purpose of the study was to find out the impact of openness on the knowledge sharing habits. 104 managers from United States (US) and 38 managers from People's Republic of China (PRC) form the respondents for the study. USA and China represent the individualistic and collectivistic cultures respectively. As far as the willingness is concerned both groups were found to be equal in their intentions, although the managers from PRC showed more propensity to share placing the collective interest ahead of their own. On the other hand, the US respondents were open to sharing knowledge with strangers and PRC grouped were willing to maintain the group harmony.

2.7 Theories in knowledge sharing

“Theory has been defined as a set of interrelated concepts, definitions, and propositions that presents a systematic view of events or situations by specifying relations among variables to explain and predict events or situations” (Glanz, Karen; Rimer, 1997).

Research on KS has drawn upon a wide range of theories. Noor and Salim (2011) have listed in their work some theory available in knowledge sharing arena. They include “Social Exchange Theory (SET), Social Capital Theory (SCT), Social Cognitive Theory (SCT), Expectancy Theory (ET), Theory of Reasonable Action (TRA), Theory of Planned Behavior (TPB), and Knowledge-Based Theory of the Firm (KBT) or also known as Knowledge-Based View of the firm (KBV).” However, a review on knowledge sharing for future research by Wang and Noe (2010) found that several studies used Social Capital and Network Theories to improve understanding of knowledge sharing in teams and communities of practice. According to Liang (2008), the diversity of these theories due to the tendency of researchers to take different factors to suit the theory.

TRA and TPB are used in many studies. “TRA and TPB build upon the simple proposition that many behaviors that an individual performs can be predicted simply from a person's intentions to perform those behaviors—that is, that people do
what they intend to do and do not do what they do not intend to do. Such intentions are called behavioural intentions” (Perkins et al., 2007).

Other theories have also been tested in knowledge sharing research. Expectancy theory, agency theory, knowledge-based view of the firm, equity theory, etc., are some of them. It may be noted here that the present study adopts TRA/TPB model.

2.8 Summary

The literature review has covered various aspects of knowledge sharing. The review attempted for definitional analysis for a few concepts. It is found that a large amount of literature is available on the subject. However, it was found out that studies in India in this area is scant. Moreover, there is hardly any literature which studies the medical practitioners, although there were studies found which concentrated on specific medical domains such as nurses, physicians, and pharmaceuticals. Hence, there is a gap in the literature about the knowledge sharing behaviour of medical practitioners. Thus this chapter establishes the need for taking up the study. This finding has set the tone for the present study.

The review of the literature helped the researcher to adopt the suitable methodology for her study. The research design for the study was adopted based on the TRA/TPB model which is found to be applicable in the context of the population considered by the researcher for the study. The methodology followed by various researchers gave the researcher an insight into the methods to be followed in her study.
References:


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