This paper aims to examine how Indian global firms build resilient business ecosystem to domestic advantage and thus move forward to global competitiveness. This paper discusses (1) requirements of domestic advantage; (2) key issues related to building more responsive, resilient and agile business eco-system in Indian context. This article also suggests key strategic positioning practices that Indian global firms take to be globally competitive in emerging economies and North America and European markets. In addition to strategic internal management practices, the roles of extended Indian business, social and professional network are discussed. Lessons and implications along with future research issues are briefly discussed.

**KEYWORDS:** Knowledge Management, Resilient Eco-System; Domestic Advantage; Global Competitiveness; Indian Global Firms.
INTRODUCTION

With an intensification of globalization, new economies have emerged that have started to play a greater role in global trade. As these economies have matured, a new trend which is emerging is the growth of Multinational Corporations (MNC’s) coming out from emerging economies. This trend has particularly been witnessed in a couple of sectors such as service and manufacturing. Two major economies who are playing a very significant role in this change in the pecking order of international business are India and China. This new trend is contrary to what existing literature talks about in terms of circumstances under which organizations can grow to become global leaders within their sectors. Since the majority of these organizations are in the technology sectors, one variable that has played an important role in their rise, is their ability to acquire and manage knowledge, and to convert that knowledge towards developing competitive advantage. Therefore, the objective of this paper is to attempt to understand how do firms in emerging economies manage knowledge acquisition and sharing to achieve business success? We will first of all conduct a literature review to evaluate how existing work deals with this question. Post the literature review, we will develop the constructs and theory. Finally, we will use case study methodology to answer the research question.

LITERATURE REVIEW

Knowledge has been regarded as a critical resource in a firm that gives rise to competitive advantages (Hoskisson, Hitt, Wan, and Yiu, 1999; Spender, 1996). The management of knowledge is recognition of the strategic value of each firm’s different stocks of knowledge in different contexts (Sanchez and Heene, 1997). The focus is on a firm’s ability to create, transfer, and use the knowledge in order to build up sustainable competitive advantages. Knowledge management in a firm thus receives a lot of attention from researchers and practitioners (Lau, Lu, Makino, Chen and Yeh; 2002). However, the process of managing knowledge is still not widely researched (De Long and Seemann, 2000). There are several ways to conceptualize the knowledge management process. Normally, it includes the acquisition, dissemination and integration, and commercialization of knowledge (Gupta and Govindarajan, 2000).

In high-tech industries, the conventional belief is that firms that possess a higher technological and innovative capacity have higher competitiveness than those without this capacity. Thus, in general, firms from emerging economies are usually in a disadvantageous position to compete in the global market since they lack technological capacity (Makino and Lau, 1998). Yet, we have witnessed that some Indian firms have been successful in the global markets. Emerging economies provide a good laboratory for investigating the interaction between firm strategies and local contexts. Mike Wright and colleagues (2005) have shaped this research agenda by creating legitimacy for this line of research, and by outlining how research in four types of strategy contexts can advance theories. Emerging economy contexts challenge some of the assumptions of theories originally developed for markets that are relatively stable and efficient (Xu and Meyer; 2013). One issue that has gained a lot in traction is the concept of Knowledge Management. Knowledge management and its role in firm strategy and performance has gained increasing recognition in the management literature over the last decades (Bruton, Dess, and Janney, 2007, Easterby-Smith, Lyles, and Tsang, 2008, van Wijk, Jansen, and Lyles, 2008).

Nonaka and Takeuchi (1995) have shown that managers approach knowledge creation in different ways depending on their intellectual traditions and fundamental assumptions about what knowledge is and how knowledge comes about. Moreover, it is believed that knowledge management in emerging economies exhibits different features (Bruton, Dess, and Janney, 2007), given the fact that characteristics of technology products and markets, national business
systems and enduring cultural influences are different from those in developed economies. Although the concept of knowledge management and how the process takes place in both emerging as well as developed economies has been researched in some detail, one area that is deficient within the management research is the process of knowledge acquisition.

The knowledge management literature suggests that the efficiency of knowledge acquisition and transfer will be significantly influenced by the types of knowledge to be acquired and transferred. In this literature, knowledge is classified on the basis of its scientific antecedents; its purpose; and its characteristics, such as tacitness, and organizational embeddedness (Ahlstrom and Nair, 2000; Dasgupta and David, 1994; Garud and Nayyar, 1994; Kogut and Zander, 1992; Polanyi, 1962; Spender, 1996; Winter, 1987). The consensus in the literature is that, as knowledge becomes more tacit, complex, and organizationally embedded, firms will have more difficulty acquiring it from external sources and transferring it between organizational subunits (Kogut and Zander, 1992, 1993). Hence, effective knowledge management in high-tech firms requires institutional and organizational facilitation. Colombi et. al (2011) have discussed in detail how inter-firm knowledge transfer, leading to external knowledge acquisition from the local firms perspective has been a key requisite for innovation. The existing literature has documented that clusters (Industry districts) and strategic alliances are two typical contexts in which firms are able to connect to external knowledge sources, and then, to realize the possibility of transferring and internalizing such knowledge to improve organizational knowledge as the basis of firms capabilities. The outcome of knowledge acquisition therefore is a function of the dynamics and involvement of these contexts.

Chung-Ming Lau, Yuan Lu, Shige Makino, Xiaohong Chen and Ryh-Song Yeh (2002) have also looked at knowledge management issues faced by Hitech firms in China by focusing on its acquisition, dissemination and commercialization. They showed that most firms emphasized knowledge acquisition. SOE-based firms relied more on their parents for early key technologies, confirming that institutional support and social capital are influential in knowledge acquisition.

RESEARCH QUESTION

The literature highlights that, although the concept of knowledge management has been research extensively in mature markets, there is a lack of understanding of the process of knowledge acquisition and knowledge sharing across emerging economies. Using the above studies as the basis, and focusing on the IT sector in India, we plan to answer the following research question:

How do firms in emerging economies manage knowledge acquisition and sharing to achieve business success?

We plan to answer this question by using a case study methodology. Initially, we will identify key companies in the IT sector in India and then try to answer the above question. We will specifically focus on the concepts of Small World Networks and Absorptive Capacity, as key variables that play an important role in facilitating knowledge acquisition in emerging economies, and subsequently helping these firms develop competitive advantage.

THEORY, CONSTRUCTS AND HYPOTHESIS

Based on existing works, we observe that there exists a research gap in terms of understanding the circumstances under which MNC’s from emerging economies have developed the competitive advantage to achieve business success. In order to understand how these MNC’s have achieved business success, we will identify factors that can help us
understand the circumstances necessary for firms in emerging economies to develop competitive advantage. The role of knowledge and the ability of MNC’s to acquire and transfer knowledge plays a very important part in the ability of these organizations to develop competitive advantage (Hedlund, 1986; Bartlett and Ghoshal, 1989). Inkpen (1998) has further suggested that knowledge transfer is not a random process and that firms institute systems and processes to acquire and transfer knowledge. One important work in this regard is by Szulanski (1996). He suggested that along with causal ambiguity and relationships between source and recipient units, the recipients' lack of absorptive capacity is the most important impediment to knowledge transfer within the firm. Using this concept we can make the argument that absorptive capacity plays a very important role in facilitating knowledge acquisition within a firm.

Absorptive Capacity

The concept of absorptive capacity was first suggested by Cohen and Levinthal (1990). They defined absorptive capacity as the ‘ability to recognize the value of new external information, assimilate it, and apply it to commercial ends’ (p. 128). Building on the concept of absorptive capacity, Lysles and Salk (1996) suggested that international joint ventures' (IJV) capacity to learn as an independent variable to analyze knowledge acquisition from a foreign parent. Their results indicate that the ‘capacity to learn, mainly the flexibility, and creativity’ (p. 896), is a significant indicator of knowledge acquisition from the foreign partner. Lane et al. (2001) further refined the definition of absorptive capacity. They proposed that ‘the first two components, the ability to understand external knowledge and the ability to assimilate it, are interdependent yet distinct from the third component, the ability to apply the knowledge’ (p. 1156). Taking this research further Zahara and George (2002) further suggested that absorptive capacity has four dimensions – acquisition, assimilation, transformation, and exploitation – where the first two dimensions form potential absorptive capacity, the latter two – realized absorptive capacity.

Cohen and Levinthal (1990) and Kim (2001), were of the opinion that absorptive capacity has two elements: prior knowledge and intensity of effort. Baldwin et al (1991) suggested that motivated employees want to contribute to organizational effectiveness. Even though the organization may consist of individuals with high abilities to learn, ‘its ability to utilize the absorbed knowledge will be low if employees' motivation is low or absent’ (Baldwin et al., 1991, 52). ‘The ability/can do factor usually denotes 'a potential for performing some task which may or may not be utilized' (Vroom, 1964, 198), while the motivation/will do factor reflects drive. The prior knowledge base (or employees' ability) and intensity of efforts made by the organization (or employees' motivation) is related to the concept of potential and realized absorptive capacity, since potential absorptive capacity is expected to have a high content of employees' ability while realized absorptive capacity is expected to have a high content of employees' motivation. The behavioral science literature suggests that both employees' ability and motivation are of importance for organizational behavior. To achieve a high performance at any level, both the ability and motivation to perform effectively are needed (Baldwin, 1959). This research was further taken forward by Minbaeva et al. (2003). They suggested in their model that absorptive capacity has two major variables employees ability and employees motivation, and that these variables play an important role in transfer of knowledge.

Taking the above argument into consideration, and utilizing the model developed by Minbaeva et al. (2003), it can be further argued that since absorptive capacity plays such an important role in transfer of knowledge, these variable also play an important role in the subsequent step, i.e. knowledge acquisition. For a firm to be able to absorb knowledge and utilize it to develop competitive advantage, it is important to have a high level of absorptive capacity. Such an ability can only be achieved if the firm pays attention to ensuring that not only are the employees highly motivated, but also the selection and recruitment strategies should be
such that the employees have high level of professional ability and functional domain knowledge.

In an environment where product life cycles are increasingly short and knowledge can become rapidly obsolete, the acquisition of knowledge has certainly turned into an important aspect of knowledge management. Companies are increasingly developing and implementing policies, structures and processes to facilitate learning and knowledge acquisition (Inkpen, 1998). Firms implementing these processes are said to be better equipped to understand new scientific knowledge, recognize changes in their environment and seize opportunities (Jantunen, 2005). Through these efforts, they are building a stronger knowledge base, which in turns increases their absorptive capacity (Caloghirou et al., 2004; Cohen and Levinthal, 1990; Zahra and George, 2002). This notion of absorptive capacity is fundamental in knowledge management because it defines a firm’s ability to appreciate, assimilate and use new knowledge. Absorptive capacity is a function of both the firm’s existing knowledge base and its efforts towards knowledge acquisition (Caloghirou et al., 2004; Liao et al., 2003). Organizations can institute various internal policies, structures and processes to enhance the creation and development of absorptive capacity. It is a commonly-accepted idea that organizational learning is closely linked with how the organization manages its human resources (e.g. Lado and Wilson, 1994; Kamoche, 1997). Thus, we propose the following hypothesis:

**Hypothesis 1**: If the interaction between employee’s ability and motivation is high, then the knowledge acquisition ability of the firm will be increased.

**Small World Networks**

The external environment also plays an important role in ensuring how knowledge acquisition takes place in a firm. This external environment is region specific and changes significantly over time. One important aspect that plays an important role in knowledge flow is the Small World Network (SWN), and how it facilitates knowledge flows.

Previous research has firmly established the significant role of social networks in facilitating these knowledge flows (Leonard-Barton and Sensiper, 1998; Davenport and Prusak, 2000; Birkinshaw and Sheehan, 2002; Cross and Parker, 2004), particularly in research and development (R&D) settings where the importance of optimal knowledge flows has long been stressed throughout the study of the innovation process (Allen, 1977; Katz and Tushman, 1981; Tushman and Scanlan, 1981; Macdonald and Williams, 1993; Assimakopoulos and Yan, 2006; Allen et al., 2007; Doak and Assimakopoulos, 2007). While a number of prominent social networking theories – such as the two step flow of communication (Lazarsfeld et al., 1948; Katz and Lazarsfeld, 1955), the diffusion of innovations (Rogers, 1962, 1995), the technological gatekeeper (Allen and Cohen, 1969; Allen, 1977), and the tipping point of social epidemics (Gladwell, 2000) – all point to the pivotal role which a small number of individuals play in the successful diffusion of information and knowledge, scant attention has been directed towards examining the specific talents and competencies exhibited by these key individuals. Such a dearth of research is surprising, particularly so in the knowledge management movement, which has often been defined as a “conscious strategy of getting the right knowledge to the right people at the right time and helping others put information into action in ways that strive to improve organizational performance” (O’Dell and Jackson, 1998, p. 4). Understanding and harnessing the talents of those key knowledge networkers will enhance an organization's ability to get the right knowledge to the right people. According to Cohen and Levinthal (1990), knowledge flow has a direct influence on innovation through the absorptive capacity of the firm (or as applied to this paper’s analysis, the Small World Network); therefore the SWNs’ “ability to exploit external knowledge” is causal to knowledge acquisition.
The primary construct of Small World Networks is defined as “clusters of locally dense interaction connected via a few bridging ties” (Watts and Strogatz 1998); in other words the SWN is a function of the number of bridges within the network that connect individuals together. The network’s defining measure being the closeness or “shortest-path distance” of social connectivity between individuals; or nodes as described within a graphical context (Watts, 1999). The more closely connected (clustered) the SWN (either intra or inter), the greater the social interaction among its individuals; resulting in a decrease in connective distance for knowledge flow to occur and innovation to be generated. Hence, individuals of similar national, cultural and interests’ backgrounds that form SWNs have a greater propensity to create innovation through the sharing of knowledge and these common ties can be objectified in the form of new business models and technologies. Therefore I re-define the primary construct of SWN as “clusters of locally dense interaction connected via a few bridging ties [bound by like national, cultural, subject matter interests and geography] that exhibit strong propensities for the creation of innovation in the form of business models and technologies by means of knowledge flow that generates new ideas”.

Therefore, based on the above literature, it can be argued that small world networks play an important role in facilitating knowledge acquisition. Therefore the second hypotheses are:

**Hypothesis 2a**: Geographically clustered SWN will correlate positively with knowledge Acquisition.

**Hypothesis 2b**: Culturally common SWN will correlate positively with knowledge transfer.

**Competitive Advantage and Business Success**

The competence-based view of competition argues that firms must have certain resources and knowledge in order to be innovative (Durand, 1997; Hoopes & Postrel, 1999). The process of knowledge management in the technology firms is therefore focused on developing their competitiveness in an unstable and volatile market. Firms have to build up their sustainable competitive advantages through developing and/or acquiring strategic resources. Conner and Prahalad (1996) asserted that knowledge is a critical resource and is the basis of the resource-based view. McEvily, Das, and McCabe (2000) also suggested that knowledge sharing allows a firm to avoid competence substitution. Oliver (1997) noted that firms differ in their selection and variation of resources. This leads to the notion that firms have different ways to create knowledge (or to source knowledge) under different institutional environments. Since knowledge is an intangible resource that is valuable and costly to imitate for competitors, the process of creating and commercializing knowledge would be the key to development of competitive advantage (Lau et al., 2002). Therefore, we propose the following Hypothesis

**Hypothesis 3**: If a firm acquires knowledge due to high levels of absorptive capacity and a positive external environment, then it will be able to create and commercialize knowledge resulting in competitive advantage.

**Hypothesis 4**: If a firm has competitive advantage due to its knowledge acquisition process, then the firm will be able to commercialize the knowledge resulting in business success.

**THEORETICAL MODEL**
Based on the above literature and theoretical constructs, we develop the following model. The primary role of the model is to show how the various constructs tie in with each other, and suggest that Absorptive Capacity and Small World Networks play a very important role in facilitating knowledge acquisition within firms. Such a process results in a firm developing competitive advantage vis-à-vis its competitors and consequently is able to easily commercialize new products that it develops. This results in the firm garnering a large market share in its specialized category and hence developing business success. Although this model is not region or country specific, but we will apply it to the case of emerging economies to understand how these variables have played an important role in the emergence of MNC’s from these economies.

Figure 1: Theoretical Model

Absorptive Capacity

- Employees Ability
- Employees Motivation

Knowledge Acquisition → Competitive Advantage → Business Success → Small World Networks

METHODOLOGY

In order to test the hypothesis, we adopt a single case study methodology. The use of the case study method to conduct research has been shown to be extremely useful in instances where the problem of generalization is solved by adopting multiple case studies (Yin; 1984, 1994 and 2003). Dul and Hak (2008) have also suggested different manners by which case studies can be extensively used to test hypothesis and arrive are tangible results. Case study research has been advocated as a valid research strategy in marketing (Bonoma, 1985), operations management (McCutcheon and Meredith, 1993), management information systems (Benbasat et al, 1987), and strategy (Mintzberg, 1979; Eisenhardt, 1989; Larsson 1993). “Most of these authors consider case study research as a useful research strategy (a) when the topic is broad and highly complex, (b) when there is not a lot of theory available, and (c) when “context” is very important. It is claimed that all these three conditions hold for many topics in business research” (Dul and Hak 2008), and it holds true as well in the design of our research question.

CASE STUDY – TATA CONSULTANCY SERVICES (TCS)
In order to understand how Indian companies are growing, we need to look at some of the latest high technology firms that are coming out of India. One of the problems facing the Indian market is maturing of the IT sector, and the resulting problems associated with this process raising the question, what steps to Indian companies need to follow in order to compete in the highly competitive global market. The best case in this point would be Indian software Giant, Tata Consultancy Services or TCS. TCS is a leader in the global marketplace and among the top 10 technology firms in the world. Their continued rapid growth is a testament to the certainty their clients experience every day. Building on more than 40 years of experience, they add real value to global organizations through domain expertise plus solutions with proven success in the field and world-class service.

**Recruitment Strategy**

An analysis of the growth of this company shows that they have been able to develop world class products and the ability to provide customer satisfaction by adopting a multi-pronged strategy. One of the advantages that TCS has, is that it is able to provide consultancy services at fraction of the cost of its competitors. The primary reason being the recruitment strategy adopted by TCS. TCS recruits aggressively from engineering colleges across India. A snapshot of their recent recruitment shows that they have visited colleges from premier institutions such as Indian Institute of Technologies, to lesser prestigious institutions such as regional engineering colleges. They tend to hire a large a number of recently graduating students, irrespective of the area of their specialization. Once the students are hired, they are put through a training program developed and imparted by trainers at TCS. It is in these training programs, that skill development of students takes place, and they are imparted with the required knowledge that makes these new recruits employees with the right skill set. This is a very unique model that is particular to TCS, and although it is being replicated by other companies, nobody has the breadth of knowledge as TCS does in terms of providing the requisite training, and molding of students to fit the companies emerging needs.

This was highlighted by Mr. Mukherjee, who is the HR head of the company in a 2013 interview. “He said (that) the recruitment pool from campuses was mainly from about 300 of the 450 institutions with which it was ‘accredited’. He said the company’s ‘recruitment portal’ ensured that the entire process was online. TCS has also adopted a model program called Science to Software training program. Instead of primarily hiring from engineering colleges, TCS has now started aggressively targeting the numerous universities in India with a strong Science program. Under the Tata Ignite project, the company is aiming at transforming science graduates in software engineers by providing them with the key skills that it requires on a priority basis. Based on their performance, these students are then absorbed into the companies services. The company by using this particular strategy is able to ensure that its cost per software engineer is low, as it pays different compensation packages based on education levels.

In addition, the company also adopts the policy of On Job Training methods, and Off the Job training methods. Using the substantial training resources at its disposal, the organization is able to develop effective modules of training as and when required for it employees. As the organization has presence across the world, it also aggressively recruits from universities around the world, as well as offers numerous internship programs to attract talent” (Hindu, 2013).

**TCS Knowledge Management Efforts**

The knowledge management efforts at TCS can be divided into the following activities:

1. **Knowledge Acquisition:**
Over the years, TCS had acquired a vast body of knowledge and experience in several fields through on shore projects for its clients across the globe including GE insurance, GE Health, Hewlett Packard, Prudential, Standard Chartered Bank etc. In addition TCS regularly rotated people across various functions, and within other Tata Group Companies, to gain cross industry experience. Employees were also encouraged to be part of outside bodies like the IEEE, and go in for certifications. TCS is currently sponsoring 40 people every year to purse PhD’s to further enhance their KM initiatives. TCS has also created communities of practices (CoPs) with an animator expert in an area of knowledge to gather best practice on different area of expertise using business case documenting problem and solution.

2. Knowledge Storage:

TCS had developed various repositories and databases for knowledge storage such as Kbases, Process Asset Libraries, KnowMax, and Ultimatix. The company also has 1500 business cases with solutions on its servers, and continuously adds to them. It further encourages its employees to use this repository frequently. The organization also possess a Process Asset library permit exchanges of around 10,000 documents on industry practices and 21,000 services practices.

3. Knowledge Dissemination:

Knowledge was disseminated using a variety of techniques such as:

1. Ultimatix a web based electronic knowledge management portal;
2. Propel session: brought together employees with similar interest;
3. Live Meeting and Knowledge Transition sessions at the project level;
4. “Tip of the Day” email comprising technical, conceptual or human skills tips were shared within the organization daily.
5. Customizing for each area of practice/technology, customer and industries.
6. Creating an initial training program and a continuous learning program for experience employees based on role and competence definition.
7. Encouraging people to move and go outside TCS to learn and bring back knowledge.
8. Employees are encouraged to create business related document. It can be retrieved by searching similar business case.
9. Innovate and decide with a tool called TIP and IdeaStorm. The IdeaStorm process is in three steps. In step one idea / question are submitted, people can brain storm on it and after vote.
10. The organization also has a just ask process to get direct access to experts.
11. TCS has various Portals which permit a uniform access to knowledge. It can be accessed through queries or using taxonomies created by CoPs. Tools and activities are used for managing tacit knowledge.

4. Knowledge Application:

Under this concept employees could access the knowledge repository that rested on the corporate and branch servers through the intranet. Students or anybody can visit the TCS website to explore the new capabilities developed by TCS and how it relates to the knowledge they have accumulated over the years about the customers, markets, systems development, and technologies. The concept of knowledge management (KM) was introduced in TCS in 1995 and dedicated KM team called “Corporate Groupware” was formed in 1998. This group launched the KM-pilot in mid 1999. At that time, KM in TCS covered nearly every function, from
quality assurance to HR management. The employees could access the knowledge repository that resided on the corporate and branch servers through the intranet, with a browser front end or a Notes client. The knowledge repository, also called Kbases, contained a wide range of information about processes, line of business, line of technology, and projects.

The next step was to create Process Asset Libraries (PALs) which contained information related to technology, processes, case studies for project leaders which were made available to all development centers through the intranet. The same thing was done through the web-based electronic knowledge management portal library and Kbases, which were hosted on the intranet, were merged with Ultimatix, which had sub-portals for quality management system, software productivity improvement, training materials, and tools information. TCS developed Knowmax, a knowledge management system, using Microsoft share point portal server that gave TCS consultants access to nearly 40 years of experience and best practices arranged by type of engagement, the technology in use, and customer requirements. It supported more than 60 knowledge assets and was accessible via Ultimatix to all TCS associates. Any associate could contribute to the K-Bank and Knowledge officers were made responsible for maintaining the quality of content.

TCS also used a variety of collaboration tools:

- Infinity that includes instant messaging, IP telephony, and video conferencing;
- blogs and wikis;
- IdeaStorm, TIP, and
- Mysite

The benefit of all these activities were that collaboration with overseas and local offices improved as instant messaging (IM) got rid of cultural and pronunciation differences that could occur on the phone. Also corporate communications was able to run a 24 hour internal news broadcast to all TCS offices in the world. In addition travel and telecommunications costs were reduced by 40 percent and 6 percent respectively. The other tools improved collaboration, communication, and knowledge sharing among the employees. Blogs, wikis, and other tools helped boost communication and productivity among employees. Wikis helped in collaborating on materials related to project, supporting brainstorming sessions and developing presentations. Blogs were used as a means to gather inputs on problems that they faced on a project. In the late 1990’s, the JustAsk System was revolutionary as it allowed employees to pose a question and in turn get answers from other colleagues, sometimes leading to a detailed discussion. If someone often answered questions on a particular domain, the relevant specialist group invited that person into the domain group and thus gave the visibility to talent within the company.

The IdeaStorm concept was used by the management, helped in generation of ideas on topics posted by the corporate team. The TIP was used as a portal for product innovation and new ideas. It helped the management to gamer ideas related to product/ service innovation and helped in solving problems. The Social Net Working MySite is used by the organization to help employees communicate better with each other. The strategic goal of TCS is to move up the value chain and to continue to bid for higher level projects, beyond those of maintenance and development. By accumulating knowledge, it has built capabilities to understand how to service clients through consulting and in other strategic areas. So KM has enabled TCS to continue to move higher up and to bid for more strategic projects.

Figure 2: Tools Used by TCS to Manage Knowledge (Source: TCS)
KM repositories that capture best practices in the projects it has undertaken make the company more efficient in servicing clients. This means it can execute better. Overall, KM tools have become a key strategic resource at the company and all hires are required to learn them as a part of their orientation. These tools are also the first go to before starting any project or approaching a client. Knowledge in these database allows TCS consultants to quickly gather intelligence about the client or similar projects and thus align themselves better with what the client might want. This has led to higher success rate in bidding and project execution.

The implementation of certain knowledge management practices also contribute to the reuse achieved by TCS. In seeking to reuse components and utilizing expertise residing in a project team regardless of its geographic location, TCS has pursued an approach that promoted the capturing and distribution of explicit component knowledge as well as haring of tacit knowledge acquired through participation and involvement (Lave and Wenger, 1991). Some important knowledge management capabilities adopted by TCS are first of all component repository is accessible from all dispersed locations. This has ensured knowledge reuse across products, reduced time to market through reuse of existing components, increasing product variety and avoiding the ‘not invented here’ syndrome. Another capability is the concept of a program manager. This also ensures knowledge reuse across projects, increasing product variety through reuse of customer specific components in future products. (Kotlarsky, Oshri, Hillegersberg and Kumar; 2008).

Based on a business model heavily reliant on low-wage software engineering talent, TCS tapped with great success, India's large pool of engineering graduates, mainly from top universities, for its human capital needs. These software project consultants formed the backbone of the company's service delivery system and the lynchpin of TCS' growth as a global IT company. TCS used a systems approach to design a training and development framework that had enabled the firm to scale up the human capital requirements to meet rapid business growth. By the end of March 2008, TCS' global employee strength was more than 111,000. Ninety percent of its IT consultants were Indian nationals, as were majority of the TCS consultants in the USA. However, as TCS followed its multinational clients and set up
operations in China, the Chinese government expected TCS to tap on local engineering talent as much as possible. (Wee and Buche, 2008). It is interesting to note, that a similar strategy was adopted by TCS in China to develop its global delivery system.

In addition, TCS also has a very well laid out compensation plan, as well as incentive structure. This incentive plan is based on regular employee appraisals, and plays a very important role in employee motivation. In addition, TCS also rewards its top performers with promotions and choice of global postings. These also serve as incentives for a large number of professionals working in the TCS team. All these strategies are a part of the concept of absorptive strategy as identified in the model, and have played an important role in impacting knowledge acquisition with the firm.

To further acquire knowledge to develop competitive ability, TCS, also taps into the SWN of its employees. One major tool for employee recruitment within TCS is employee referral, especially at managerial levels and above. Since a majority of their employees come from premier Indian management and technology institutes, a majority of their senior level recruitment is also of individuals from these institutions. As a result, a SWN is built within the company of individuals have close connections to a few leading management and technology institutions. This enables them to effectively tap into the collective strength of their alumni to not only gain access to emerging ideas and technology, but also plays an important role in entry into new business segments, as well as to get new business orders. An analysis of their board of directors and leadership teams shows this trend.

Therefore, what is observed is that the absorptive capacity of the company along with the SWN, plays an important role in knowledge acquisition within the company. This unique model of knowledge acquisition has enabled the company to develop high level of competitive ability in certain key sectors, and has enabled the company to garner market share and achieve business success.

CONCLUSION

Based on the model suggested earlier, we observe that the case of TCS shows that knowledge management, and the process of knowledge assimilation plays a very important role in acquiring competitive advantage. However, what is unique to the case of TCS is that, it has incorporated this concept with the idea of a Small World Network, to develop a unique model. As India is an emerging economy, and large number of information technology firms have come out of the economy and are now becoming major global players, it is but natural for us to focus on how these firms have develop competitive strength. Such a research will enable us to develop best practices, and policies that help firms achieve commercial success in this knowledge based economy.

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