Master Thesis in Innovation, Entrepreneurship and Business Development

Competence Sharing in Transnational project teams of permanent character

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Abstract

The purpose: The purpose of this paper is to enhance our knowledge on competence sharing in geographically distant and organizationally autonomous units for better and enhance performance of transnational projects that takes a more permanent character.

Methodology: A multiple case study approach was employed with primary source of data obtained through a qualitative in-depth interview with some employees at different management levels.

Findings: We found out that both technical and business competences/knowledge of an individual is very important in determining success in transnational team. Horizontal integration can assist in strengthening competencies of the subsidiaries and enhance their innovative capability. We did find out that knowledge sharing will play important role in transnational project by enhance the integration process in team since it will help to develop shared understanding among participants. Project Performance appraisal system should include facilitating knowledge sharing process as integral part of performance monitoring activities.

Research Implication: This study will contribute to the body knowledge on transnational project since majority of the previous work focus on team which takes a temporary character; however, this study shows how to reinforce competence sharing in transnational team that takes a more permanent character.

Practicality of the work: will be seen in enabling managers to view individual and organizational level competence as an equally important capability and the necessary set up should there in order to build and sustain the unique resource base of the organization. Furthermore, it will give an opportunity for performance monitoring activity to be devised in such a way that it should be able to appreciate any kind of competence sharing within the team.

Keyword: Competence, Knowledge Sharing, Transnational Project, Coordination Mechanisms
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1. Introduction:

Product innovation requires the firm to have competences relating to technology and relating to customers, and each of these competences is constituted by a set of resources. (Danneels, 2002) Competence is the main sources of competitive advantage for firms engaged in a market that require extreme flexibility and creativity to meet the ever-changing demand of customers. This thesis tries to grasp understanding on competence sharing in transnational projects.

1.1. Theoretical Background

Innovation has been seen as an important ingredient for long term performance of firms in the business world. Without a capacity to come up with a better product and service that try to address the needs of customers, firms are finding it hard to survive and grow in the market. Fallah and Lechler (2008) have clearly indicated companies competing in the global market need to globally introduce innovative products, services and processes rapidly and effectively.

Firms which are able to tap in the most important resource of the organization have managed to come up with a different product, service or process that will build and sustain their competitive advantage in the market. Fallah and Lechler (2008) has pointed out that sustained competitive advantage relies heavily on the ability to access and process globally scattered market and technology knowledge to accelerate and improve the innovation output. And according to Mooney (2007) Competitive advantage stems from a firm’s ability to leverage its internal strengths to respond to external environmental opportunities while avoiding external threats and internal
weaknesses. Tyler (2001) also argued that as competition intensifies, it becomes more and more important that firms recognize, protect, and reinforce their sources of competitive advantage and move to compensate for or strengthen organizational weaknesses.

Hence, corporations that are able to recognize, protect and reinforce their competence have managed to endure the challenges and have survived in the market. To Foss & Knudsen (1996) competence is a typically idiosyncratic knowledge capital that allows its holders to perform activities - in particular, to solve problems in certain ways, and typically do this more efficiently than others. Because of its skill-like character, competence has a large tacit knowledge component, and is asymmetrically disturbed. Consistent with the above statement another important definition of competence is forward by Ljungquist (2007) it is a \textit{purposive combination of firm-specific assets (or resources)} which enables it to accomplish a give task. This particular resources or assets possessed by the organization are uniquely embedded within the group of people or teams, or it may be within the technological capability of the organization.

However, exploiting this distinctive quality demands efficient coordination mechanism that will facilitate the process. What makes the issue more complex in multinational corporations is that they have different units located in various parts of the world with special kinds of competences that have made the organization unique and help to maintain the competitive advantage of the corporation. But, identification of the definite process that builds, sustain and erode the competences is a difficult job and facilitating the knowledge sharing process among units requires willingness and decision to establish flexible and learning organizational set up.
1.2. Problem discussion

A MNC is an organizationally complex and geographically dispersed organization that represents a hierarchical order of multiple and varying inter-unit exchange relationships (Dorrenba & Gammelgaard, 2010). Studies on competences of subsidiaries have revealed that each unit in different part of the world possesses a distinctive character or skill that can add a value on the competitive advantage of the corporations. As pointed out by Schweiger et al. (2003) each subsidiary of Multinational corporation possess certain kinds of knowledge and skills that includes functional and local market skills, knowledge of competitors or best practice that will facilitate exploitation of opportunity or responding for recent introduction of new technology by competitors.

The advancement of technological capabilities of subsidiaries and their contribution on strategic renewal of MNC have been studied and got more explanation in relation to different set of mechanisms or capabilities (Taggart, 1996; Birkinshaw and Hood, 1998; Frost, 2001; Cantwell and Mudambi, 2005), however, Kappen (2011) highlighted some of the most important areas where subsidiary capabilities studied and could contribute to headquarter. Subsidiaries mainly have following capabilities: they will have enhanced degree of local market embeddedness; they will create opportunities to re-combine existing knowledge within the MNC, subsidiary entrepreneurship, and subsidiaries could help headquarters in their coordination efforts by helping them to find out suitable strategies and differentiated control mechanisms.
Hence, establishing this kind of interaction and sharing of knowledge among subsidiaries and headquarter plays pivotal role in utilizing the core competency and capabilities of the corporations. However, making most out of such establishment is not an easy task. And the following statement by Kasper, et al. (2009) sums it up although knowledge sharing is certainly possible, the process can be costly, and despite heavy investment in knowledge management systems by firms, payoffs are often illusive. In the following part we will discuss in detail the major challenges that can hamper corporation from getting the most out of their investment in complex projects in their effort to utilize the core competencies of the corporations.

As part of corporation plans to reach and exploit various competence located at different sites, transnational projects have been employed to develop and implement different product, process and system solutions depending on the desire of the corporations. Based on the discussion of Adenfelt and Lagerström (2006) transnational project is founded upon the principle of leveraging knowledge of dispersed units to a temporary unit to enable creation of new knowledge needed for the development of products, processes, and systems for multiple markets.

Different definition of transnational projects have been highlighted by various scholars, however, a single most inclusive definition we intend to use for our purpose was given by Schweiger et al. (2003) were by they use some criteria’s that makes the transnational project team and network unique. According to them the following five different elements characterize transnational team and their network.
They are

- Involved in creative tasks, i.e., the creation of new knowledge incorporated into products and services,
- Functionally heterogeneous,
- Nationally heterogeneous,
- Virtual in the sense that all team members are not co-located in the same geographic territory, i.e., they are physically dispersed and
- Their formation is either “improvised” or emergent or stimulated through a top-down “business planning” process.

However, the main challenge of this kind of arrangement is that multinational corporations have various ways of managing resource and facilities almost in each subsidiary. The amount of resource owned and run by each subsidiary varies to considerable level beside to geographical and time difference in each unit country (Ghoshal & Bartlett, 1990). According to Adenfelt (2010) like other projects, transnational projects experience the challenge of getting a diverse group of individuals from different functional areas to work together for a finite period of time to accomplish a specific project objective. Transnational projects, however, face additional challenges: physical distance, cultural diversity, language barriers and technological infrastructure differences. And to (Willem, Buelens and Scarbrough, 2006) multinational corporations (MNCs) face this problem due to the geographically dispersed and relatively autonomous character of their business units. However, organizations set various coordination mechanisms to deal with the issue critically. And according
to Willem, Buelens and Scarbrough (2006) coordination mechanisms are tools for information sharing between units to accomplish the integration of the units’ set of tasks.

Adding to the fact that coordinating difficulty, corporations face big challenge on the identification of specific process that builds, sustain and erode their competences. Bogner et al. (1999) argued that for strategies to be successful over long term it should be build firmly on inimitable competence as well as on the identification of specific processes that builds, sustain and erode those competences. Firms should be able to map out its valuable competences and even they should be able relate the competence with core product. This kind of investigation gives a chance for corporation to be able assess what they have and what is needed. More importantly it will give them an opportunity to identify the unique competences that are embedded in subsidiary and hence, it provides corporations the privilege of building and sustaining their competitive advantage by leveraging various competences located in different geographical location.

Efforts have been made in a number of studies to explore various aspect of multinational project, Adenfelt (2010) has linked transnational project performance with knowledge sharing where communication and coordination difficulties has been raised as the main factors that hampers knowledge sharing in multinational projects. Another important addition was made by Willem et al. (2005) where they critically look at different coordination mechanisms that can be employed by Multinational Corporations while managing multinational project in relation to unit’s knowledge sharing possibilities. Chevrier (2003) focused on cross-cultural management while running
multinational projects where leaders of the groups should come up with a better solution that face challenges related to cultural diversity.

However, little has been said on identification of specific process that builds, sustain and erode competences on transnational project teams. Very little is known about link between firm’s competence and preferred coordination mechanism in knowledge sharing process among subsidiaries in transnational projects.

1.3. Problem Formulation and Purpose

As stated in the above discussion, our understanding to date has been limited to knowledge sharing in transnational projects, temporary in nature, and they mainly focus on coordination and communicational difficulties. It is not clearly or completely understood the link between firm’s competence and preferred coordination mechanism in knowledge sharing process among subsidiaries in transnational projects teams which takes a more permanent character. This paper seeks to address the following research question

Research Questions

“How to mutually share and transform competencies between transnational project teams of permanent character?”
Purpose

The purpose of this paper is to enhance our knowledge on competence sharing in geographically distant and organizationally autonomous units for better and enhance performance of transnational projects that takes a more permanent character. It is assumed that the research will help us to understand the need for efficient coordination mechanisms and strategy that can be employed by firms in order to get the best result out of transnational project and achieve a higher level of innovation capability in turn improve and maintain their competitive advantage.

1.4. De-Limitations

An increasing amount of literature is devoted on describing the kind of knowledge organization possesses and its importance as a source of competitive advantage. As demonstrated in the work by Jasimuddin, Klein and Connell (2005) explicit and tacit knowledge are the main factor for organizational survival and is main source of sustainable competitive advantage in knowledge-based economy. A similar point is made by Smith (2001) were knowledge is recognize as a steadily increasing corporate assets along with corporate reputation, brand identity, etc. However, this article focuses on uncovering the explicit knowledge nodes that are base for the knowledge sharing process in transnational projects. The tacit part is beyond the scope of this study.
1.5. Thesis Structure

The study is divided into several parts. The first chapter gives a brief overview of the research problem and the ultimate goal of the study. Chapter two addresses a number of issues by reviewing relevant literatures that will assist in understanding and examining the research question at hand. It starts by providing a brief overview on firm’s competitive advantage then continues the discussion by putting a lot of attentions on firm’s competence, Knowledge transfer, coordination mechanisms, transnational projects team, and project performance monitoring.

Chapter 3 will provide a brief outline of the methods, the rationale for choosing case study as a research method, data collection and analysis techniques are also presented. Chapter 4 presents case Descriptions.

The analysis in chapter 5 will present the finding of the study. The empirical findings of the case study are analyzed and critically discussed in relation to the theoretical foundation laid down in research question and chapter 2. The analysis of the case study data are presented in such a way that will depict a full picture on functioning of transnational project teams. In the last chapter the paper concludes by summarizing the findings and attempts to highlight the potential implications of the study.
2. Theory

Given our interest to find out how Multinational Corporation could efficiently manage and improve their competitive advantage by exploiting their distinctive resources, skills or knowledge located in different geographical location by employing transnational project team, it may require us to look into relevant literatures on firm’s competences, knowledge sharing, coordination mechanisms, monitoring efficiency and performance during knowledge sharing process.

The concept of competency, capability and competitive advantage has been discussed in various documents in different contexts. After researchers interest to find out what unique quality of an organization makes it more interesting and valuable to customers, different studies have come up with a range of explanations. But before discussing the main idea that we are interested in i.e. competency, it seems appropriate to give a brief review what competitive advantage is and what factors can enhance or hinder its positive implication to sustainable existent of a business.

As stressed by Ma (2004) in the strategy literature, there exists a rich body of knowledge on the nature and causes of competitive advantage (Barney, 1991; Peteraf, 1993; Porter, 1985; Powell, 2001), ranging from the industry positioning approach (Porter, 1980, 1985), the commitment explanation (Caves and Ghemawat, 1992; Ghemawat, 1991), to the resource based view (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984) and the dynamic capability approach (Teece et al., 1997).
But for simplicity we took the definition forwarded by Mooney (2007) were competitive advantage is viewed as a capability or resource that is difficult to imitate and valuable in helping the firm out perform its competitors. And this could lead to raises question whether what can be taken as capability or resource that cannot be imitated and is valuable, since to some extent any kind of resource that corporations possess has certain value associated to it.

Bogner et al (2007) have suggested that a firm’s resource base includes all resources that are available for use by the firm’s managers in competition including both physical and intangible assets. However, according to the discussion of Sanchez (2004) capabilities are repeatable patterns of action in the use of assets to create, produce and/or offer products to a market. And because capabilities are intangible assets that determine the uses of tangible assets and other kinds of intangible assets, capabilities are considered to be an important special category of assets. It is clearly pointed out that capabilities arise from the coordinated activities of groups of people who pool their individual skills in using assets. Hence, this lends weight to the argument that what makes a capability unique or special to an organization is that it is uniquely embedded to the way both type of assets i.e. tangible and intangibly assets are utilized for the benefit of the organizations. Consistent with this (Bogner, Thomas and McGee, 1999; Mooney, 2007) have stated that to be sustainable competitive advantage requires an element of uniqueness in itself and should be difficult to imitate or substitute.
There is now a substantial body of research or literature or work that explains various sources of competitive advantage. The resource-based view of a firm suggested that sustained competitive advantage can be obtained through identifying and continuous improvement of superior resources of the organization. Another view on the source of competitive advantage was given by Mooney (2007) were it is believed that it stems from a firm’s ability to leverage its internal strengths to respond to external environmental opportunities while avoiding external threats and internal weaknesses. Hence, based on the above fact one could argue that competitive advantage mostly depends on the leveraging the capability or super resource or internal strength of firm in response to opportunity or threats created by happenings in the working environment.

Ma (1999), in a study of global competitive advantage, categorizes three generic types of competitive advantage: ownership-based, access-based, or proficiency-based. Ownership or possession of certain valuable assets, factors, or attributes by firms can result in competitive advantage, for instance, strong market position (Porter, 1980), unique resource endowment (Barney, 1991), or reputation (Hall, 1992). Competitive advantage can also be secured through superior access or exposure. Some firm’s have better access for factor market and product market (Barney, 1986a; Lieberman and Montgomery, 1988), or some enjoy close contact and exclusive relationship with supplier or distribution channels. Finally, the recent development in the discipline of strategic management has served as a launching pad for competitive advantage through firms own superior knowledge, competence, or capabilities in conducting and managing its business processes (Nonaka, 1991; Prahalad and Hamel, 1990; Teece et al., 1997; Winter, 1987)
However, it is by no means an exaggeration to state that, firms should not only focus on exploiting existing competitive advantage rather they should give equal or more attention on securing consistency of the competitive merit. It is critical to raise the idea of Bogner et al. (2007) that the general argument that over the long-term the most successful strategies are built firmly on inimitable competence, as well as on the identification of the specific processes that build, sustain and erode those competences, have all found broad acceptance.

2.1. Specification of Theories:

2.1.1. Firms Competences:

The importance of competence and its role in improving the performance of firms in competitive interaction with other businesses cannot be oversimplified. The beginning of 1980’s has showed tremendous changes in the way businesses were organized and managed. The rapid development of new technologies, increasing globalization of product markets, and especially the appearance of new forms of organization has profoundly transform the way firms compete in many markets (Sanchez and Heene, 1997; Cardy and Selvarajan, 2006).

Despite the recognition of competence as the main reason that create a disparity between two competing firms in the market, little is known about it before the introduction of the idea core competence in 1990’s (Prahalad and Hamel, 1990; 1993; Sanchez and Heene, 1997;). This pave the way for important addition of competence as a new source of competitive advantage that can easily be exploited and enhanced through strategic decision of firms.
Various kinds of perspectives and explanation have been forwarded by researchers regarding competence. Competence has been viewed as idiosyncratic knowledge capital (Foss & Knudsen, 1996), efficiency in managing relation with suppliers, customers and other organization (Johnston et al., 2002; Kloftsen, 1992; Doyle, 2002) collective learning in a firm (Hamel and Prahalad, 1990;), skill or cognitive trait (Bogner, Thomas and McGee, 1999;), measurable patterns of knowledge, skills, abilities, behaviors and other characteristics (Lee, 2010), it is combination of resource and capabilities or from strategic perspective, competencies are termed as functions, processes, and routines (Cardy and Selvarajan, 2006)

The following definition of competence is adapted as the main one in this paper due to the fact that this definition differs to some extent from others since it emphasizes on firm-specific assets. Ljungquist (2007) it is a purposive combination of firm-specific assets (or resources) which enables it to accomplish a give task. Competency theory characterizes firms as an open system of asset and flows that including tangible assets like capabilities and cognitions (Dierickx and Cool, 1989; Sanchez and Heene, 1997). In an effort to achieve their goals firms will have to obtain relevant resources that may reside within the firm (firm-specific resources) and some of them can be generated from other organization through collaborative works (firm-addressable resources). In this paper our emphasis is to understand how Multinational Corporations can maximizing their gain from transnational projects by exploiting and building existing competencies that reside in their subsidiaries (firm-specific resources).
A recent research on firm’s competence has made a great stride towards suggesting criteria that can be used both to identify and/or classify firm’s competence (Sanchez, 2004; Ljungquist, 2007). Competence will reside at different level of activity in organization: it may originate from firms ability or capability to create new service/product, to efficient organize and coordinate of assets or it may totally depend on cognitive ability of top management to come up with an interesting strategy to add more value on the existing excellence. Moreover, competence may require different length of time to be created or to endure. And the knowledge base that a firm possesses can be a key source for competence to be created and improved. It may emerge from practical day-to-day development (know-how), theoretical understanding (know-why) and from strategic understanding of the need for value creation (know-what). Firm’s competence may stems from running complex interaction and integration of process or by simplify focusing on key value adding activities.

Advocators of the competence theory have classified and distinguished competence in different forms. And three types of competences are distinguished (Ljungquist, 2008; Danneels, 2002) first-order competencies, integrative competencies, and second-order competencies. First-order competencies comprise current customer and technological competencies and a second-order competence is the ability of corporations to identify, evaluate and incorporate a new value on existing competences. Firm’s ability to combine the two type of competence is deemed as integrative competencies of organization. Ljungquist (2008) clearly discuss some unique attributes of competences that a firm can possess.
The competences should be able contribute significantly to the customers’ benefit from the product,

- It is competitively unique, and

- Provides potential access to a wide variety of markets.

A different view on organization competence is given by (Lee, 2010; Cardy and Selvarajan, 2006) were competence is classified into two interrelated concept; employee/Personal and organizational/corporate level competence. However, organizational level competence is assumed to be embedded in employee level one. Employee level competence is further divided two main components technical and behavioral competence. Job related skills, knowledge, abilities, experience is taken as the technical competence and personal attributes or characteristics are deemed to be behavioral competence. Hence, organizations have two different approaches of identifying employee competences. These approaches include employee trait-based approach or behavioral based description.

An area that has become increasingly important in competence theory is to determine which approach is mostly productive and appropriate to use in firm’s quest to identify employee’s competence in organizations. Recent work or research suggests that there exist many ways of identifying employee’s competence in an organization; however, each approach has its own merit in certain context. Cardy and Selvarajan (2006) have proposed four different approaches; job based, future based, value based and person-based.
In job-based competence identification, the process starts by analyzing the job requirement of a position which will result in competence criteria of the position (Langdon and Marrelli, 2002). This approach will ultimately lead us to identify the skills need to perform a certain task. Future mission and strategic direction of an organization is the base for competence identifying and development process in future based approach. Firms strategy will serve as a criteria in order to determine which competencies are core one and essential to the interest of the firm. Cardy and Selvarajan (2006) argued this will enable organization to prepare for future directions. Thirdly, the person-based approach mainly focuses on identifying individual attributes that are base for competence development. Using some points to find out about creativity and innovativeness of an employee can be an example this approach. The value based approach strives to identify the core value that the organization wants to be known for and promote that one since the future focus is going on it.

### 2.1.1.1 Technological and Customers Competence:

Product innovation requires the firm to have competences relating to technology and relating to customers, and each of these competences is constituted by a set of resources (Danneels, 2002; Lokshin, Gils, and Bauer, 2009). Knowledge on customers need, preference and taste play important role in maintaining a satisfied customers. Constant interaction and communication with customers can secure relevant information that will grant firms ability to serve its customers very well. According to Danneels (2002) customer competence is constituted by market related resource that includes knowledge of customer needs, preferences, and purchasing procedures, distribution and sales access to customers. Also, customer goodwill or franchise reflected in the reputation of the
firm and its brands, and communication channels for exchange of information between the firm and customers during development and commercialization of the products. Technological competence to Danneels (2002) comprises manufacturing plant and equipment, manufacturing know-how, engineering know-how and quality assurance.

2.1.2. Transnational Knowledge Transfer

2.1.2.1. Knowledge Transfer/Sharing:

Before embarking on a discussion of knowledge sharing and how to monitor the process, it is important to highlight some concept of knowledge management. Authors have shown that the source of competitive advantage has shifted enormously from solely basing itself on how firms manage their workforce to highly complicated capabilities that can’t easily be imitated by competing firms (Sanchez & Heene, 1997; Bogner, Thomas & McGee, 1999). In this knowledge-based economy companies are searching for means where they can identify and build their knowledge base so that they could be able to adjust their strategy and be more innovative in an effort to overcome challenges posed by competitors. (Adenfelt & Lagerström, 2008; Kasper, et al., 2009)
Abou-Zeid (2005) defined organizational knowledge as “the capability members of an organization have developed to draw distinctions in the process of carrying out their work, in particular concrete contexts, by enacting sets of generalizations whose application depends on historically evolved collective understanding and experiences”. This definition is believed to show some unique nature of knowledge in organization, first it indicate that it works in certain context or it is designed to fit certain context and secondly, it shows tacitness of the knowledge where it bases on understanding and experience. Knowledge in Multinational Corporation is classified by varying degrees of complexity, tacitness, stickiness, ambiguity and hierarchical levels (Hong & Nguyen, 2009). In classifying the knowledge possessed by the corporation will assist the knowledge sharing and management process by indicating the challenge it may arise due to its nature or the context of the knowledge (Jasimuddin, Klein, and Connell, 2005). This is due to the fact that knowledge that will reside within an individual (tacit knowledge) is hard to verbalize and codify rather it is acquired through imitation and practices, but explicit knowledge can be expressed in codified forms and can be diffused in the form of rules and guidelines (Adenfelt & Lagerström, 2003). Therefore, we can argue that the more we know about the knowledge, the easier it will be to choose the best method of transfer and coordination mechanisms.

Three main types of knowledge are identified by Hong & Nguyen (2009) that vary to large extent in their complexity, tacitness or stickiness or even in their hierarchical level. Technical knowledge is the first one that mainly relate to task-oriented skills and functional expertise. Secondly, systemic knowledge is more focused on understanding the social complexity in a firm. It mainly deals on
understanding structural relationship among units or it tries to address issues on understanding socio-cultural dynamics among units and its members. Finally, strategic knowledge, it is the cognitive framework and structures forward by senior managers to create relationship among critical factors that will facilitate the overall process of a firm.

(Adenfelt & Lagerström, 2003; 2008; Hong and Nguyen 2009) they showed that geographic exposure of Multinational Corporation to diverse national and institutional environments or knowledge networks; have granted them a privilege to access various knowledge sources. Hence, every business units have an opportunity to create knowledge necessary to adjust with the demand of its local environment which in turn leads to each units create and utilize location-specific and unit-distinctive knowledge. However, it poses a strategic challenge for MNC to establish a coordination mechanism that will supports the knowledge sharing process. A particular problem facing large firms is unique knowledge ‘locked in’ within certain units (Willem, Buelens and Scarbrough, 2006). Adenfelt & Lagerström (2008) also argued that one of the strategic challenges for MNC headquarters today is that of choosing, designing and establishing organisational mechanisms that support and increase knowledge processes across subsidiaries.

Knowledge sharing has been defined by authors in many different ways; Adenfelt & Lagerström (2008) defined Knowledge sharing as the provision and receipt of knowledge shaped by both the sharing and receiving units. Parallel with this other interesting definition is forwarded by Abou-Zeid (2005) were it is conceptualized as multi-stage process in which knowledge created within one
organizational context is *re-created* and utilized effectively in another organizational context. The idea of re-creation was introduced for the knowledge sharing process since it is believed that knowledge sharing process is not only about mere act of transmission and reception rather it involves the parties involved have to negotiate on whether accepting the new addition and adapt it to their context.

Even though knowledge sharing can be the ideal solutions for firms desire to maintain their innovativeness and thereby strengthen their competitive advantage, its successfulness is influenced by different factors. Abou-Zeid (2005) has indicated two main factors that can hinder the effectiveness of inter-organizational knowledge transfer. Knowledge-specific factors have been highlighted as primary reason why sometimes the knowledge sharing process fails to meet its aim of enhancing innovativeness. The tacitness and complexity of the knowledge can make it hard the whole sharing process. Secondly, social and cultural context of the knowledge embedded can influence the effectiveness. Here social and cultural aspects like prior experience, cultural and organizational distance was given higher priority.

A more detailed investigation on firm’s ability to organize and manage knowledge development and sharing across subsidiaries was done by Adenfelt & Lagerström (2008). Four main factors were pointed out: pre-existing knowledge of subsidiaries, presence of shared practice among subsidiaries, interaction and communication. Subsidiaries ability to understand and exploit existing knowledge can give an idea of what is missing and shared practice in developing and sharing knowledge. This can provide a foundation for any kind future development.
Accordingly, it is self-evident that knowledge sharing process can be influenced by factors related to the nature of the knowledge and coordination mechanisms laid down in the strategic plan of the organization. Transnational project teams is considered as a nice move by corporation in order to leverage knowledge dispersed at various subsidiaries so that a new value can be added on existing product, processes or system then secure higher market power over competing firms. (Adenfelt and Lagerström, 2006)

### 2.1.2.2. Dynamic Capability

While dealing on organizational knowledge it is relevant to relate it with the dynamic capability (DC) concept. Based on the discussion of Helfat, et al. (2007) dynamic capability is the capacity of an organization to purposefully create, extend, or modify its resource base. Teece (2007) sees dynamic capability in organization as a capacity (a) to sense and shape opportunities and threats, (b) to seize opportunities, and (c) to maintain competitiveness through enhancing, combining, protecting, and, when necessary, reconfiguring the business enterprise’s intangible and tangible assets. Both explanations on DC clearly indicate that any business organization basis itself on certain unique characteristics or resource base in an attempt to enhance and maintain its competitiveness in the market. Secondly, it shows that organizations should purposefully strive to enhance or reconfigure the resource base so that they will be able to meet expectations from their customers.

Dynamic capabilities of a firm does comprises both tangible and intangible assets, and the knowledge and processes that will facilitate sensing a new business opportunities and orchestrating its resource portfolio in conditions of change (Ellonen, Wikstrom, and Jantunen, 2009). In
addressing the ultimate goal of transnational projects firm’s resource bases has to be exploited to maximum level if firms would like to improve their innovative capacity. Whether a transnational team was established for new product development/suggest a new service or recommend a new process of running business, it will require full utilization of existing technological and market capabilities of the firm. Based on illustration of (Danneels, 2002; Ellonen, Wikstrom, and Jantunen, 2009) Market capabilities are comprises market-related resource, process and knowledge needed to handle current and future markets. Technological capabilities combine both tangible and intangible technically related resources, processes and knowledge and as an illustration for technological capabilities of firms they pointed out engineering know-how and quality-control procedures of firms.

According to the discussion of Ellonen, Wikstrom, and Jantunen (2009) dynamic capability will imperatively assist firm with their effort to be more innovative by enhancing firm’s ability to build and integrate resource and capabilities in order to attain new forms of innovative combinations in changing market.

(Wang and Ahmed, 2007; Ellonen, Wikstrom, and Jantunen, 2009) highlighted three component factors of dynamic capabilities. This includes absorptive capability, innovative capability and adaptive capability. Firms’ ability to exploit opportunity related to external knowledge, linking firm’s innovativeness to product and markets and finally firm’s ability to adapt and align need resource to meet changing circumstances are the three main classifications. Knowledge sharing process through transnational project could be part of the three components factors. The knowledge transfer activity among subsidiaries can enhance unit’s ability to absorbed new market and technological
knowledge and more importantly it will help to focus on making the most out of subsidiaries unique resource, moreover, this kind of opportunity will serve as a learning platform for unit to have clear image of what missing in their operation and can help to make needed adjustment so as to meet future expectations.

2.1.3 Transnational Project and Teams

Transnational project have enabled firms to access the knowledge, abilities and skill dispersed in various subsidiaries and be more innovative. The relevance of running transnational projects among subsidiaries is not questionable considering the recent advancement in technology and changing working environment. Transnational projects have resulted in high level of creativity and innovation in some multidivisional companies, a recent survey of 90 transnational product introductions concluded that the use of transnational project teams had a dramatic effect on the innovative capability of the entire organization (Schweiger, et al., 2003). The principal reason for establishing a transnational team is creations of a new knowledge by leveraging existing knowledge located in subsidiaries with the ultimate aim of enhancing innovativeness.

A concise definition of transnational project is given by Adenfelt & Lagerström (2003; 2006) were they view transnational team as a cross-border organizational unit composed of individuals of different nationalities’, working in different cultures, business units, and functions, thereby possessing specialized knowledge for solving a common global task in the MNC. A similar look on transnational project team was given by Schweiger et al (2003) were by they use some criteria’s
that makes the transnational project team and network unique. According to them the following five different elements characterize transnational team and their network. They are

- Involved in creative tasks, i.e., the creation of new knowledge incorporated into products and services,
- Functionally heterogeneous,
- Nationally heterogeneous,
- Virtual in the sense that all team members are not co-located in the same geographic territory, i.e., they are physically dispersed and
- Their formation is either “improvised” or emergent or stimulated through a top-down “business planning” process.

Study on co-operation within transnational team (Bachmann, 2006; Adenfelt & Lagerström, 2008) have clearly indicated that its success highly depends on how much they have managed to establish a shared understanding on the objective and how it can be achieved.

However, it is worth noting that transnational projects will experience the same challenges like other project run by corporations. Diverse group of individuals from various functional areas with aim of specific corporate goal will be given a chance to work together. But there will be additional pressure on the team members due to the fact that physical distance, cultural diversity and availability of infrastructure support (Govindarajan and Gupta, 2001; Adenfelt, 2010). This strongly suggests that efficient organizational setup and structure plays a key role in enabling the team to
accomplish the strategic goal of enhancing or expanding the knowledge base and maintain competitive advantage.

### 2.1.3.1 Team Efficiency and Effectiveness

Transnational project teams have to go through tough times if they want to fulfill the main reason for their establishment. The efficiency of the team is hampered by various factors and some of them include:

**a. Shared values and Objectives:**

Co-operation within the transnational team depends on establishing a shared view of what the objective is and how it can be achieved (Govindarajan and Gupta, 2001; Bachmann 2006; Adenfelt and Lagerström, 2008). Schweiger, Atamer and Calori (2003) in their finding clearly pointed out that common interest and its impact on focusing all energy on performance was profound. Authors argue that common interest among subsidiaries is one of the main reasons why units are interested on committing resources and it is a good means of reducing any conflict among units. Based on the discussion of Willem, Buehrens and Scarbrough (2006) enabling shared value to develop among subsidiaries is another form of coordination mechanism and it can be enhanced through socialization processes in organizations. Shared mental models and values among participants will facilitate corporation’s aim of building uniform knowledge foundation among units by enhancing learning and knowledge sharing among group members.
b. Team Members Motivation and Team Leadership:

According to the finding of Schweiger, Atamer and Calori (2003) project teams’ motivation plays important role in the accomplishment of a given task. Transnational project opportunity should provide certain incentive or motivational factors for participant to engage actively and result in satisfactory outcome. Authors have pointed out that (Govindarajan and Gupta, 2001; Schweiger, Atamer and Calori, 2003) a project should at least provide one of the following opportunities to participants if they are required to commit intensively. The project should offer team members an opportunity to learn and develop new skills, be associated with high priority and visible international projects, and expand their personal network.

A leader of a project will have important role in making sure that all team members are undertaking their role efficiently so that the overall goal of the project cannot be jeopardized (Mendez, 2003; Marques, Gourc and Lauras, 2010). Team leadership has a very vital role in transnational team in enhancing group cohesiveness and understanding among team members since such projects involve participants from various functional and geographical areas. Chen and Lee (2007) have indicated how the traditional approaching of measuring the performance of project managers solely by the profit associated with the projects will lead them to focus on projects that are perceived to be more profitable and avoid chance that will have little financial implication to the organization. However, according to them those unprofitable projects may add new intangible benefits that could enhance the technological or market competence of the company which will have a role in enhancing the competitive advantage of the firm and in turn it will contribute to the sustainability
of the business. Hence, they suggested that a suitable performance evaluation could foster an environment that invites creativity and knowledge sharing.

Team leader’s competence will also play a pivotal role as to how a transnational project team fulfills its ultimate goal of enabling the knowledge sharing process and coming up with a better solution for corporation’s challenges. Their ability to understand cultural difference, difference in management style and way of working are some of the few skills they should master in order to be effective. Schweiger, Atamer and Calori (2003) have depicted few qualities a team leader should possess and it includes that leader’s ability to understand subsidiary administrative history and partners which can help him/her to understand various interest and able secure cooperation among units. In their article Chen and Lee (2007) have also highlighted the importance of selecting project managers who possess the necessary technical and administrative skills such as commitment and competence for successful project termination.

### 2.1.4 Coordination Mechanisms

When teams are a primary mechanism for accomplishing organizational work, effective coordination of teamwork becomes an important organizational issue (Faraj and Sproull, 2000). And more importantly any sort exchange of resource among units will have its own impact on other business units operation and may have a determinant role on choice of organizational structure (Hsu, Marsh and Mannari, 1983). The content of the exchange, may lay a ground for subsidiary to make an adjustment on the way they manage their employees, or it may impact their relationship with customers, suppliers or even it may force the unit to make a big adjustment on organizational
structure. It is quite possible that a brand new organizational structure and system can be initiated by headquarters based on a single and productive experience of a unit.

The relevance of coordination mechanism could easily be explained while considering the relationship and communication among units or between headquarters and subsidiary in multinational corporations (Andersson and Forsgren, 1996). Tsai (2002) argue that organizational units compete with each other in different forms and require different coordination mechanisms to facilitate knowledge sharing. One reason for such competition could be in a single corporation where there will be limited amount of resource that will require subsidiaries to compete for it. Likewise, corporation should also try to exploit the accumulated knowledge in each subsidiary that is embedded to the units due to its unique interaction with local suppliers, competitors and working environment. Hence, firms should strive to balance between competition and cooperation. And based on the discussion of Adenfelt & Lagerström (2003) the key task of headquarters is to coordinate any kind of transaction carried out within MNC ranging from capital and product flow to knowledge flow.

Coordination mechanisms to Willem et al (2006) are tools for information sharing between units to accomplish the integration of the units’ set of tasks. Tsai (2002) also highlighted that organizational coordination refers to integrating or linking together different parts of an organization. From this, one can easily understand that coordination involves an integration of element among units or parts, and mainly to fulfill certain purpose targeted by an organization.
Two generic kinds of organizational coordination have been identified in multinational corporations (Miller and Droge, 1986; Tsai, 2002): formal hierarchical structure and informal lateral relations. Formal way of coordination mechanisms has been employed by many firms in order to create a balancing relationship among units. Formal coordination is also classified into three interrelated concepts; centralization, formalization and specialization. Willem et al. (2006) looked at it differently were coordination mechanisms differ in their level of formalization and the extent to which the coordination is programmed. The first one highlight whether the interaction and exchange is approved by top management decision or not. Programmed coordination indicates what the tasks to done and the level of cooperation required from participating parties, while feedback coordination adjust the task during performance and cooperation.

2.1.5 Project Performance Monitoring

Atkinson (1999) defined Project management as the application of a collection of tools and techniques to direct the use of diverse resources toward the accomplishment of a unique, complex, one-time task within time, cost and quality constraints. Each task requires a particular mix of these tools and techniques structured to fit the task environment and life cycle (from conception to completion) of the task. Various authors have argued that existing method of performance monitoring has its own drawbacks. To (Belassi and Tukel, 1996; Marques, Gourc and Lauras, 2010) majority of existing project performance tools focus on financial aspects, such as return on investment, cost or profit per unit. The financial contribution of the project to the firm or the
amount of cost it saves to the organization has been used as the primary mechanism of measuring the efficiency and effectiveness of a project.

An important addition on project performance monitoring was made by Cooke-Davies (2002) where success in projects should measure from two different angels’ project success and project management success. We can measure the success of a project by measuring its outcome against the overall objectives of the project likewise the success of project management can be measured by using traditional approach of cost, time and quality.

However, according to Westerveld (2003) success criteria in projects should go beyond the golden triangle of time, budget and required quality. And it is argued that a universal criteria of success factors that suits all projects is difficult to come by which is highly attributed to difference in projects size, uniqueness and complexity. However, it is clearly pointed out that the contribution or impact of a certain project can go beyond financial issues it can bring a lot of non-financial positive or negative implication on the organization which indirectly will have an impact on the future competitiveness of a firm.

A similar approach was employed by most corporation while trying to monitor the Performance of transnational project. Cooke-Davies (2002) and Adenfelt (2010) has stressed that the traditional approach of assessing the performance of transnational projects has its own limitations due to the
fact that it exclusively focuses on the project per se and it does not give that much attention to contextual or process factors.

Monitoring activities in transnational projects are highly focused on *outcome-related performance* of the project. A similar point is made by (Sarin and Mahajan, 2001; Hoegl and Weinkauf, 2005; and Adenfelt, 2010) were achieving cost, time and quality objective are a customary way of evaluating the performance of transnational projects. Schedules and budgets are the primary criteria used in an effort to measure cost and time efficiency of the multi-functional team members. Predefined quality objective are the main means of making sure that clients are satisfied with the outcome of project. Here they did point out that the monitoring activity should also focus on the impact of factors such as knowledge sharing, communication and interaction patterns, coordination and shared knowledge on transnational project performance. Hence, they argued that outcome-related performance measure should be complemented by process-related measures of transnational project performance.
2.2 Theoretical Framework-Model

Figure 1: Organizational Chart of Transnational Projects

- **Figure 1**: represent an organization chart of transnational project that will involve three sites. The vertical link shows the interaction between HQ and Sites. The key task of headquarters in relation to subsidiaries is to coordinate any kind of transaction carried out within MNC ranging from *capital and product flow* to *knowledge flow* (Adenfelt & Lagerström, 2003). The horizontal integration represents any kind of exchange that could take place between subsidiaries.
2.2.1 Individual and Organizational Competencies:

Operational efficiency and effectiveness of a transnational team, among other things, will be affected by the level of their understanding and exploitation of existing competencies in an organization. And competence in organizations can take different forms; however, the most common way of classifying competence will be competence at employee/personal and organizational/corporate level (Hamel and Heene, 1994; Sanchez, 2004; Cardy and Selvarajan, 2006; Lee, 2010). Transnational team may need to employee one of the two classification in their effort to meet customers expectation. Both technical and behavioral competence of an employee as well as organizational competence will matter in making the team successful.

In their explanation of the difference between the two classifications Cardy and Selvarajan (2006) they pointed out important characteristics of personal competence. Knowledge, skills, abilities, experience and personality of an individual as an integral part of personal level capability that will play main role in facilitating the group to come up with innovative solution to organizational challenges.

2.2.2 Transnational Teams:

Transnational project is founded upon the principle of leveraging knowledge of dispersed units to a temporary unit to enable creation of new knowledge needed for the development of products, processes, and systems for multiple markets (Adenfelt and Lagerström, 2006). The importance of transnational team on enabling organization to be more innovative cannot be underestimated. However, in most cases success is not an easy thing to come by in such kinds of diversified team.
(Govindarajan and Gupta, 2001; Schweiger, Atmer and Calori, 2003; Willem, Buelens and Scarbrough, 2006; Adenfelt, 2010) highlighted that both domestic and global team will experience similar challenges of misalignment in individual team members’ goals, diverse group of individuals from different functional areas, and lack of clarity regarding team objectives and other related problems. However, they all agree that the team will have to face another kind of dynamics due to two main characteristics of transnational team. The team is composed of individual members from subsidiaries which are geographically dispersed that will result in language and cultural barriers, likewise, the autonomous character of the subsidiary will pose another set of challenges that will includes difference in communication and decision making process.

Authors argue that efficiency and effectiveness of the team will depend on various factors, and creating a successful transnational team according to them to some extent depends on how efficient the team selection process is, project leadership, the context in which the team operates, motivation in the team, use of available technologies (Davison, 1994; Govindarajan and Gupta, 2001; Schweiger, Atmer and Calori, 2003; Adenfelt, 2010).

2.2.3 Project Performance Monitoring:

Project performance monitoring aims at making sure both domestic and global projects have been able to meet a certain stated objectives. Hence, the ultimate goal of the monitoring activity will be improving performance by providing relevant information about current project performance so that it will be able to provide support and improvement in managerial decision making (Marques, Gourc and Lauras, 2010).
Adenfelt (2010) argues that the traditional approach of assessing performance of transnational project has its own limitation since it does not give enough consideration for contextual or process factors rather it puts most of its focus on the project per se. A similar view was shared by (Cooke-Davies, 2002; Westerveld, 2003; Jha and Iyer, 2007; Marques, Gourc and Lauras, 2010) were they conclude that the traditional ‘iron Triangle’ i.e. cost, quality and time dimension of the project performance will not be enough to provide the needed information on the project so as to supplement decision making process.

Hence, the key argument was performance monitoring activities in transnational project should not only strive to make sure that all the three dimension of project are met rather it should be able to go beyond that and should able to enhance process related issues in the organization. Most importantly it is believed that the performance monitoring criteria should be able to give enough emphasis on enhancing communication, competence sharing and related activities in the team.

2.2.4 Coordination Mechanisms:

According to Sanchez (2004) the four cornerstones of competency theory aspires to recognize and capture the dynamic, systemic, cognitive and holistic nature of organizational competences. And ability to manage the systemic nature of organizations and of their interactions with other organization requires coordination of assets. Ability to coordinate firm specific and asset located outside of firms boundary will ultimately affect to what extent corporations maintain and add a value on their competitive advantage.
Coordination among subsidiaries is the key issue that has a direct implication on the final outcome of transnational team. Schweiger, Atamer and Calori (2003) maintain that transnational project teams and networks have become an important mechanism for facilitating horizontal cooperation in multinational corporations. This statement will give us a chance to see the two most common ways of coordination mechanisms employed by organization i.e. horizontal integration and vertical hierarchy. According to authors difference among the two mainly basis on formal hierarchical structure and informal lateral relations among subsidiaries (Miller and Droge, 1986; Tsai, 2002; Willem et al., 2006). One is more characterized by the level of formalization, centralization and level of cooperation required from participating parties in transaction process in the team.

Competence sharing within the global team can be affected the coordination mechanisms employed both at headquarter and site level. Authors argue the primacy of horizontal coordination over vertical hierarchy is a key characteristic of the innovative form (Schweiger, Atamer and Calori, 2003). Adenfelt (2010) identified that linkage mechanism whereby members of transnational project coordinate activities with one another is communication. Here communication is discussed in terms of its degree of formal character it takes but more importantly the emphasis was on the difference in the direction of the information exchange i.e. whether it is unidirectional or bidirectional. It is believed that the information and knowledge flow within the transnational team is the outcome of communication tool chosen. Hence, when talking about coordination in transnational projects the main issues that could be highlighted includes communication and decision making authority.
2.2.5 Permanent Project Teams:

The transnational project is a temporary, cross-border organizational unit composed of individuals of different specialized knowledge for solving a common global task in the MNC (Adenfelt, 2010). The above definition clearly shows some unique attributes of transnational team, however, the one characteristic that we are interested in is the temporary nature of the team. In most cases transnational team is consider to be a onetime thing this may be due to the fact that a project is a temporary phenomena (Marques, Gourc and Lauras, 2010) or it might be due to the purpose they are established for (Adenfelt and Lagerström, 2006). This temporary nature of the team can have dual effect on the team members; having new members every time when a new project is launched can enhance the effectiveness and efficiency of the team by bringing new perspective into the work, furthermore, it will give participants a new set of challenges to overcome. On the other hand managing the group dynamics can take more time of the group that should be allocated to address the problem at hand. As already noted in previous discussions (Schweiger, Atmer and Calori, 2003; Willem, Buelens and Scarbrough, 2006; Adenfelt, 2010) transnational project team will have to face similar challenges like domestic project, however, the team will face additional pressure due to physical distance, cultural diversity and availability of infrastructure support. This kind of challenges can be minimized if the transnational team takes up permanent status.
3 Method

3.1 Research process:

The overall process of this thesis work begins with the case company’s interest to find out the best way of running a transnational project and monitoring their performance. Coordinating the activities in multinational project requires more than a traditional approach of managing internal projects. The difference in geography, time and culture will bring additional challenge on leaders of the group in their effort to accomplish the project aim. However, the need to meet customer’s tight requirement requires an efficient work from transnational team that will be forced to face various different system they have to follow to address the need.

In our attempt to grasp what is already know about transnational project and its efficient function we have to go through existing literature on Interorganizational networking, coordination and integration, dynamic capability, transnational project, knowledge sharing and performance monitoring related to transnational projects.

Rather we decided on focusing on types of competence that constitute transnational project, what kind of integration is an appropriate way of doing business in corporations and more importantly our attempt was to find out pertinent information on how transnational team function properly, what factors can influence their positive result. Hence, this can assist our effort of trying to address how to measure efficiency and effectiveness in the transnational teams beyond time, quality and cost dimension.
3.2 Research Design

Research design is those essential logical structures or parameters of a research project. It includes aspects like the basic approach-quantitative, qualitative and mixture of both, a sample or target to be interviewed or observed, questionnaires or discussion outlines, tasks and materials to be introduced and also research location.

Coming out with a logical structure that always tries to explain to the public or those concerned how the research problem got a solution or solutions has always been the prime concern of researchers. (Yin 2009, cress well 2009) stressed that no research technique be rejected or used as a priority of the other but the focus and scope of the research should lead to the research design.

Creswell (2009) defines research designs as plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis. This statement particularly highlights that there are different procedures and hence, data collection and analysis method that can be employed by a researcher in order to achieve a stated purpose. There are many possible approaches of addressing a particular research problem and research design but the way the researcher formulates the problem and designs a project to address the clients issue is the key part of how a proposal is weighted and thus evaluated.

Creswell (2009) identifies three types of research design: quantitative, qualitative, and mixed methods. Quantitative research uses deductive approaches as scientific method to identify statistical relationships, test hypothesis and theories formulated from collected data and analysis done by use of diagrams and statistics. While qualitative research involves the use of a bottom up
or inductive approaches as scientific method to search for patterns and holistic features during data analysis which is done by use of conceptualization. In qualitative research design researchers try to explore and grasp the meaning of individual or group on various social or human problems. On the other hand, mixed research type uses both qualitative and quantitative approaches due to the fact that research objectives are mostly multiple. While Newman and Benz (1998) insisted that both qualitative and quantitative approaches should not be viewed as dichotomy but they signify different ends of the continuum.

Yin (2003) also highlight three different ways of research strategies: exploratory, descriptive and explanatory. And which strategy to use depends on three main factors: (a) the type of research question posed, (b) the extent of control an investigator has over actual behavioral events, and (c) the degree of focus on contemporary as opposed to historical events.

In this study we would like to focus on more broad aspect that will hamper the flow of work between two or more subsidiaries. This is how to mutually share and transform competencies between transnational project teams of permanent character. Due to the fact that the problem under investigation is not clear, an Empirical (exploratory) research was used to collect data and study in the problem in detail.
3.3 Qualitative Case Studies to Investigate Competence Sharing in Transnational Projects:

Since our interest is to know how multinational corporations identify the basic knowledge node that builds the competence of its units, survey research method would have been important data collection method, nevertheless, using case study was very crucial to start out by exploratory purpose where some initial information and explanation for various factors related to the problem could be understood easily.

A case study approach is chosen given that it is more helpful than other methods by allowing more flexibility and mainly identifying competence is a hard task and requires detailed field investigation. And there is no better means than case study to use when the boundary between phenomenon and context are not clearly evident (Yin, 2003). This approach is believed to provide us with an opportunity to use explorative questions in order to properly explain and describe the problem under study.

Multiple case studies will be conducted. The importance of using case study is that it’s a research strategy and an empirical inquiry that investigates a phenomenon within its real-life context. Herling et al. (2000) Stressed that case study approach of research design is seen as a process of scholarly inquiry and exploration with the main aim not only being problem solving but knowledge creation as well. With another unique potential in that case study provides the researcher an opportunity of mixed methodology approaches. Hear it is seen that the researcher is able to view the problem in multiple angels or directions.
Thus, Eisenhardt (1989) and Mintzberg (1979) stressed that multiple case research study provides the investigator with a complementary inside which add to the richness of the data making their different views increase the likelihood of capitalizing on any novel insight which maybe in the data. They further reiterated that the convergence of observations from multiple investigators enhances confidence in the findings and also conflicting perceptions keep the group from premature closure. Despite the various list of qualitative research types listed by Yin (2003), together with Hamel et al (1993) they brought out the notion that case study research is far more standardized than traditional research type because of its parameter establishment and objective settings.

Looking at our study with a purpose of enhancing our knowledge on competence sharing in geographically distant and organizationally autonomous units for better and enhance performance of transnational projects that takes a more permanent character, it is realized that the case analysis in this thesis is geographically dispersed and coupled with limited knowledge about the research problem, the choice of multiple case study will not only help guide us toward our finding but also enhance our understanding of the research problem.
3.4 Data Collection

The prime objective of research work is not only coming out with result but useful result as well. In order to have a useful result researchers have to stress on how to obtain useful data not how do we collect the data. With this in mind data collection should basically be seen as a process of obtaining useful and critical information that can be used or further processed to establish a factual basis for analyzing problems and decision making (Patton 2002).

This thesis work above all basis itself on primary source of data. Due to the nature of the issues dealt in, first hand information can be secured from participants in the transnational projects and the best way of getting such kind of information is believed to be interview. With a classification of interview approaches that includes: With surveys, interviews, observations, and ethnography and experimentation being the various forms of primary data sources, qualitative in-depth interview approach will be used as the main source of obtaining the useful data (Patton 2002).

Qualitative in-depth interview approach is a two conversion between the researchers and the interviewee with the aim of obtain information for a purpose. It involves either face to face interaction between either parties or conversion through telephone. Hear, pause and active listening is required so as to fully grasp the points from the respondent’s gesture, facial appearance or environment as well.

Unlike the other interview types mentioned in Patton (2002), the in-depth interview is unique in that it’s a focused and discursive interaction between the researcher and respondent. This does not
only help in providing much detailed information and accessing some critical solutions but it also help in exploiting and exploring the boundaries of the problem (Rubin and Rubin 2005). This was backed by Lanz (2007) who stated that the researcher need to know about the different interview methods and which is best suited for their studies.

Transnational project teams invite the active role of not only members who are assigned into the team but also diverse individuals from different position who have a lot to say in the fruitfulness of the group. Hence, including their perspective in the problem under investigation is believed to increase the accuracy of the data gathered by enabling it to reflect the reality. Top management, project leaders and members of the project team are the primary individuals who could provide first hand data on the functioning of the team.

Moreover, this kind of projects involves subsidiaries located at different places which could easily indicate there is the issue of autonomy and freedom in each site which give them a chance to develop their own management styles and approach of handling customers, and different formalities of doing a task. Even though this kind of local responsiveness of the sites has enabled them to meet customers need and gain competitive advantage, it can also be a source of difference among units while running transnational projects. And a study that does not give a place for both side of the coin will miss a lot of valuable data that can optimize the overall outcome of study. Hence, we conducted the case studies at least by including two different parties/subsidiaries that take part in the transnational projects and try to capture their viewpoints on a range of important matters communal among units. The aim of this process is not to acquire a direct replication of
data rather our attempt is to secure contrasting situations where it will strengthen external validation of the findings.

And based on the discussion of (Miles and Huberman, 1994; Creswell, 2003; 2007) four aspects of data collection are very important while planning the process. The preparation for the interview is considered the main aspect so as to maintain an unambiguous focus thus, providing maximum benefit to the proposed research study (McNamara (2009). The settings under which the research will take place, the actors that are going to be interviewed, the event and the evolving nature of events undertaken by the actors within the setting or process. The research setting choice is highly related with favorability of the case company to investigate various aspects of transnational projects since the firms has a long standing experience dealing with projects that involve subsidiaries located in different sites.

3.4.3 Interview

Interview with managerial personnel’s and project leaders will provide an in depth data and understanding about the problem under investigation. Interview is selected primarily because it will help us to focus our endeavor on the case (Yin, 2003).

The interview was conducted into two phases. In the First visit was a meeting with officials of the case company with aim of getting more insight on the problem under study and to create a clear image of the case. This meeting was about introducing the organization and providing essential insight about various activities undertaken in the organization by mainly focusing on how they have
been running various project with different elements of the corporation and the challenges that comes across in the process.

We conducted the interviews in the second phase of data collection. Each interview took 30 to 60 minutes and was held with important people who have a major role in the functioning of transnational projects. These included regional top management members, international project leaders or coordinators, and engineers who took part in the project have been given a chance to share their views and perspectives in various issues we raised in the interviewed questions. Tape recording was also made alongside the interview so as not to lose any verbal production (Bucher et al 1956). Also due to the geographical positions between some correspondents and the authors, telephone interview was used as means of contact for a maximum half an hour (Czaja and Blaire 1996). The selection of interviewees for interview process solely depends on their exposure and their influence on the performance of transnational projects. Both Face-to-face and telephone interviews made in an effort to secure a balanced data from different units who have a stake in multidivisional projects.

3.5 Data Analysis

A tape record or extensive notes were taken depending on subject’s desires for secrecy and opportunity to use. The raw materials that retrieved from the interview i.e. field notes and tapes were written up in well developed paper document and the recordings were transcribed immediately after each interview. During the transcription process, both authors listened to the tape while also writing simultaneously. Each author reads what he has transcribed to the other
author as a sign of correction and accuracy. The initial organization of the document was critically reviewed and commented on and based on the theoretical framework each data were arranged and the preliminary reflection on the conceptual meaning of the data was done as recommended by Miles and Huberman (1984).

The interview question aims at securing relevant data’s on competence, knowledge sharing, coordination and performance monitoring especially focusing on transnational projects. Even though interview was the main way of getting data for this thesis work, the paper have been making use of written materials on issues related to transnational projects and its functioning.

### 3.6 Validity and Reliability

In order to evaluate the quality of a research work that is its methods and design, Lincoln and Guba (1985) presented four approaches to follow. They stressed that credibility, transferability, dependability and conformability if fully respected and applied will yield a thrust worthy results. Since this thesis is based on qualitative nature, thus by implementing the criteria stressed above a concrete validity and reliability will be achieved Morse et al. (2002).

This type of approach is beneficial toward and is preferably used in relation to qualitative research and therefore the authors of this thesis have chosen to apply the constraints suggested by Lincoln and Guba when evaluating the methodology applied in this thesis.

It is worth noting that the research is based on a case study approach, involving statistical generalization as an approach of generalizing the findings of the case. All this is due to the fact that
cases are not part of sampling data. Yin (1994) and Janesick (1998) then added that since cases are not part of sampling then the process of generalization is termed analytical because the empirical results can only be matched with those of previous findings of the case study under question. So conclusions of case studies are not generalized but specific in nature.

Another approach of checking the quality of research finding is by triangulation. Mostly used in qualitative research, it’s a process involving the use of varied approaches of data collection and theories to check on validity and reliability (Denzin and Smith 1998). They further consider this approach to be a complement to validity but not as criteria of validity and they emphasized that findings are more accurate since error margins are reduced as a result of multi processes involved.

Looking at credibility in qualitative research, it’s a process that explain if the quality of the thesis proposal. This means that credibility explains if the research subject was clearly identified and described. That is if the research proposal was clearly stated, getting deeper understanding of the research problem formulation. Also, by triangulation, that is use of multiple data sources so as to identify concrete theories and models to be used in making the research work more credible will lead to a more credible result (Hussey, 1997).

In the case of this thesis, an in-depth knowledge or understanding of this research topic was gotten from a series of primary data sources through interviews both verbal and via phone. Performing a vigorous review of more that seventy sampled articles in relation to the topic in question and also transcription of the taped interview (by both authors) added to the aspect of triangulation and thus credibility as well.
The interview persons were allowed to choose the time and dates convenient for them all this was to allow they have a focused and confident atmosphere while the interviews and phone calls were being made with the main aim of increasing quality of data obtained.

Unlike credibility that is considered as a process of internal validity, transferability on the other hand is termed used to express external validity, transferability is out to evaluate if the results of the research are applicable to further or other research with similar context so as to allow generalization (Hussey, 1997).

Lincoln & Guba (1985) argued in their research work that though qualitative research is not out to express external validity as quantitative research, researchers involve in the section or research should provide a clear elaborate and concise explanation of their research problems, research methods and design and finally discursions.

Being a research involving multiple case studies, transferability of the results obtained from the case under study with similar cases will be based on perception taking into account the general trend at that point in time. Notwithstanding, the respective chapters of this research work has been elaborated to enhance applicability and thus generalization.

Dependability is another important measure of validity and reliability in terms of qualitative research. The authors have to show that the research process and methods are systematic and well documented (Hussey 1997, Lincoln and Guba 1985).
The authors used a qualitative in-depth approach to interview the respondents with the same questions being asked to respondents of same managerial positions. During the interviews, the questions asked were being flexible in terms of the researcher’s views and perception about the topics in question and respondent’s reactions. This is to allow probing and better understanding of the respondents.

Also in order to apply the rule of dependability, the authors also included a detailed list of the interviewed questions to the appendix of this research work. This is to make the research methodology well understood and thus confident (Saunders et al 2003).

Biasness is one of those issues that most researchers try to always avoid when carrying out research. Due to the fact that judgments are based on perception and self interpretation or understanding of another person, conformability is used in accessing whether the research process is in line with data collected and also if the data collected where truly from respondents but not authors imagination.

Since our work was based on interview as source of data, in order to reduce biasness in our data collected, we first of all gut an in-depth knowledge of the research problem by going through vast number related articles. With a confident knowledge about our research area we were able to receive credibility to our respondents during our first contact. Also we contacted the respondents earlier, allowing them to choose a reliable and convenient date for their respective interviews free from internal or environmental pressures. This helped avoid biasness intermesh of time schedule
stress and other pressures thus making us more credible inform of our respondents (Saunders et al 2003).

Open ended questions being used in the interview process where first presented to the authors supervisor who went through to avoid the aspect of biasness. Being open ended questions, biasness was reduced because the respondents had a wide approach of given their views (Easterby-Smith et al 1991).

Furthermore, interviews carried out where taped while phone responses gotten via phone calls where noted down in detail. These entries where immediately transcript by both authors and reviewed many times to avoid biasness and transcription errors.

Even though the issue of reliability and validity are more of quantitative context than qualitative, the authors where able present a work that had the purpose of generating understanding (Stenbacka 2001) and also being trustworthy (seale 1999). This was all due to the fact that the research process design and analysis respected the rules of reliability, credibility, transferability, and conformability.
4. Case Description:

4.1 Background:

The case Company is an intercontinental corporation with its headquarters in Singapore. The corporation was founded in 1969. Today, the corporation is one of the world’s leading and most profitable suppliers of electronic manufacturing services to principal original equipment manufacturers (OEMs). The corporation operates a global network of manufacturing facilities in more than 30 countries in four continents. It has more than 200,000 employees with an estimated annual turnover of $30 billion.

In 1990s the corporation purchased over 12 operations in various locations that enable it to build global establishments that create an opportunity for high volume manufacturing, expanded purchasing and engineering capabilities which in turn improve the global competitiveness of the corporation facilities. The global strategies of the corporation that secure high revenue gain includes the corporation’s ability to establish unique industrial park models in Asia, Europe and the American’s. These parks gave a chance for all activities to be performed in a single place both suppliers and manufacturing services were co-located in single area which believed to grant operation flexibility and responsiveness to customers request in time.
The full package of corporation service includes complete design, engineering and manufacturing services to communication infrastructure, aerospace and defense, industrial, medical, clean-tech, automotive, enterprise computing and storage and mobile and consumer electronics. The corporation is able to deliver this service by establishing four main business segments with each having unique quality that will enable them to handle the stiff competition in the entire business group.

4.2 Transnational Projects:

The corporation has the privilege to operate in over more than 30 countries. Units are located in different places in the world and most of the subsidiaries are located in America, Europe and Asia. This study is conducted by using a case company located Sweden and the unit mainly interacts with two units which are part of the corporation but they are situated in different locality. This kind of collaborative interdependence with the subsidiaries has resulted in improved innovativeness of the units where location specific knowledge is exploited.

- **Site Alpha**

Alpha unit is one of the subsidiaries located in China. The unit has strong interaction with Beta unit which operates in Sweden. The unit is well known for its manufacturing service for customers working in areas of medical, industrial, networking, communication, computing and others sectors of the economy. The corporation has been operating for the last 15 years in Doumen area of Zhuhai, South China’s Guangdong Province as a starting place and expanding its operation in various provinces in the region with a workforce of over 53,000 employees in different centers.
The corporation has been able to establish 15 design centers in Chinese market and still the corporation is taking various measures to expand its operation in the area. The unique capability of the site, according to our interview with project manager, is highly related with Low manpower cost, its comparative advantage of closeness to manufacturing facilities and more importantly its ability to manufacture on-site and ship the end product directly from the Industrial Park to end user.

- **Site Beta**

The subsidiary provides its service in Nordic Region in the area of clean tech, industrial and networking industries from two main sites. A design for manufacturing and engineering services, printed circuit board assembly, new product introduction, box-build, and build-to-order and configure-to-order services are some of the design and manufacturing function of the units. The division also carries out a logistic service to its customers particularly focusing on product fulfillment, distribution and after market services.

![Figure 2: Horizontal Integration among sites](image)

- **Figure 2**: depicts lateral relation among sites in their attempt to address important task a single subsidiary cannot overcome alone. Here the horizontal integration will cover any kind of exchange among sites that includes competence sharing/knowledge transfer or any kind experience sharing can be part of the integration process.
Site Beta started its operation in 1997 with acquired facilities in Sweden. It started to operation mainly by providing most of its services for a single corporation, however, in recent times the corporation has started to expand its business and has able to make transaction with a great deal of customers in the Nordic region.

The main qualities of the unit highlighted by majority of the interviewees are that the unit is being able to build and maintain it customer and technological competence. The subsidiaries desire to maintain strong interaction with customers has served as helped in securing long term business dealing with different set of customers. It ability to specialize in certain technological capability has enable the subsidiary to build strong reputation among various customer bases.

- **Site Gamma**

The unit serves various group of customers engaged in various sector ranging from industrial and mobile telecommunication to consumer markets. Some of the facilities provided by the unit includes solar and backplanes, software, safety and thermal design, product integrity, validation and reliability testing. Site Gamma is located in Canada.
Relevance of the Case Company to the study

The inclusion of the case company is consistent with the research problem at hand; moreover, the corporation is interesting because several transnational projects have been running in the organization that involves multiple units in various locations that can serve as a platform to test our models and give us a room full of experience.

The subsidiaries has high regard to leverage or exploit whatever possibility they have while working with different internal and external source of business and other opportunity that can enhance the innovative capacity of the corporation. The unit in the past has shown strong desire to exploit various competencies that reside in different sites in order to preserve long term business performance of the corporation as a whole. Hence, the unit’s aspiration for such kind of great opportunity to engage in transnational project makes it an interesting prospect to base our study on.

The global presence of the corporation will grant a chance to explore projects that involve units located in diverse sites with different cultural, geographical and time background. And this particular aspect of the case has a lot do with the main purpose of this paper work since it will facilitate our desire of establishing a performance monitoring model that strengthen knowledge sharing among geographically distant and autonomous units by feeding the analysis with adequate and relevant data. Hence, it is believed that it will make the study to be more reach in data and improve the representative of the findings.
5. Empirical Findings and Analysis:

5.1 Individual and Organizational Competence:

Strategic importance of a firm to its customers greatly depends on how much it is benefiting and providing a unique experience to them (Auwah, 2007). This unique distinctiveness of the firms in most case is highly attributed to its ability to understand and build its valuable tangible and intangible assets or competence. Multinational corporations have an advantage of exploiting both generally applicable and local competence located in their subsidiaries in order to face the challenges of the ever-changing market situation and customers need.

Being able to understand the various competences that reside in the subsidiary will assist in discovering what competence the firm possesses and what is missing in the organization. In addition, it will give a chance for managers and various project managers to have clear understanding on the competence available to them and what should be done in order to improve or build on the existing level of excellence so that customers needs and future competitiveness can be satisfied and maintained. Moreover, by undertaking competence analysis, organization could easily identify what kind of competence does exist and is required in order to meet their future strategic goal. Hence, knowledge on the type of competence that resides in the organization will be a helpful instrument in letting others to know which coordination mechanism is appropriate if they are interested to engage in competence sharing process.

The idea of viewing competence in an organization differently has contributed a lot in highlighting the two main integral parts of competence identification and development process. Both personal
and corporate level competence will bring in considerable advantage to an organization. According to discussion of (Hamel and Heene, 1994; Lee, 2010; Cardy and Selvarajan, 2006) a personal competence is possessed by one or few group of people working in a certain firm. Individual skills, knowledge and experience of a person can help in developing a new product, service or process of an organization. Likewise a combination of corporate characteristics, skills, motivations and knowledge plays a critical role in securing future competitiveness of a firm.

To (Hamel and Heene, 1994; Cardy and Selvarajan, 2006) organizational competence will reside in its system, mechanisms, routines and process/functions and diffused into its people, technology and structures. Employee competence can only be exploited through proper coordination mechanisms which is part of organizational competence. However, any kind of knowledge or competence sharing or transfer within subsidiary and headquarters is highly dependent on the organizational structure of a firm.

**Proposition 1:** “Identification of organizational competence will increase the likelihood of choosing appropriate coordination mechanism for competence sharing or transfer.”

5.1.1 Corporate Competencies

Adapting the way the corporation operates with customers needs is the primary way of maintaining strong and interactive relationship with customers. In our interview with managers of both internal and transnational projects, they pointed out that the organizations ability to work with both different size and complexity of customers as unique entity of the organization.
Customer’s competence that steamed from putting customers need as the priority issue has lead for adaption of different development process that will help to secure fit to satisfy customers demand. The development process has forced the project team to adapt a checklist that will add more control and checks on the process of design and manufacturing so as to address the needs of customers. Based on information gathered from the interview process this change in the organization has yield more change in the organization ranging from basing almost all business with small number of customers to opening a room for doing transaction with different size and type of customers.

“………involving different project sites or by the use of blended rates (this involves mixing the cost of western offices with those of Asian offices and getting the average cost per hour for the project) to inform the customer that the project cost is effective for both parties. This will clearly show the customer how cost has been minimized and how qualified the workforce was involved.”

Another unique quality of the site raised by the interviewees was the ability of the subsidiary to generate and exploits various designing skills and knowledge which is complemented with manufacturing facility in the corporations. This technological competence of the units accompanied with an outlet for manufacturing of the product is deemed to capture the attention of many customers even though there are many competing firms both within and outside of Europe. Considering the specialization of the units mainly in design for manufacturing products, this competence has not been exploited by corporation as we find out that there is little knowledge sharing activity in the firm. However, a more organized inter-change of engineers and experience
sharing on various aspects may open up opportunity for efficient utilization of the competence by different unit located in various sites.

Adequate knowledge on both employee and site level competence will increase an opportunity to subsidiaries to know in detail about the subsidiary they are dealing with and it will be a marketing experience for each participating sites. More knowledge on available capability means organization will have an opportunity to devise a way to exploit the competence and expand their market as well as establish more business dealing with various business units.

5.1.2 Employee Level Competencies:

A success of certain project can be measured from various points of views. To Cooke-Davies (2002) success can measure from two different angels’: project success and project management success. In both cases success cannot come easily it needs active contribution of individuals involved in the project. Project managers and participants knowledge, skill, abilities and personal experience plays a critical role in knowledge sharing, coordination activities and any kind of interaction within the group. Patanakul and Milosevic (2008) have studied the competence of project managers and they highlighted the importance of technical, operational, human and strategic skills of the managers that will have a major say on the outcome of the project.

**Proposition 2:** “Discovering employee level competence will facilitate the project performance/output measures.”
Both technical and business competences of an individual are very important in determining who will be a part of transnational team. In our discussion with project managers and engineers, they mainly identified that technical skills and managerial capabilities of a person as very critical competence that an engineer should possess to be part of the team. Both emphasized that technical expertise of the person, communicational skills, proactive decision making are some of the few competencies that an individual should possess in order to have an active role in the team.

A success or failure of a certain project can be attributed to various factors but leadership quality of project manager has its own share. A transnational project manager will have a major influence on the successfulness of the project through his managerial skills. Among other things motivation and commitment of the team members is detrimental and project managers is expected to play a great role in maintaining strong work ethics among engineers in the group. The respondents described the following competencies of leader as a key once: Clear understanding of the project aim is identified as the most significant factor especially in transnational projects; this is mainly because such kind of multidivisional projects involve a number of subsidiaries and most of the time if not managed properly such cases create a problem of not having a clear cut approach on how to address the issue at hand. Hence, both site and project managers are expected to understand the subject in detail and should be able to inform others what the project is about and provide proper guidance and direction on how to proceed with the task. Based on the response of site and project managers this can be achieved by formulating a strategy for the team so that each participating unit knows what is desired to be achieved and what is expected of them.
Secondly, communication skill of the project manager was raised as important competence that the respondents believe to matter in transnational projects. It was highlighted that subsidiaries have different level of autonomy and hence, they have freedom to formulate their own strategies in order to be more responsive to local market. This means that there is clear difference in management style and organizational culture. Therefore, respondents argued that information sharing and more communication can compensate the gap in management style and enable them to meet customers request in time. Decision making skill, ability to adjust in uncertainly, flexibility, and financial management skill of the project manager are some of the few competences stressed by respondents.

Understanding employee level competences especially observations on the competence of project manager not only help to establish useful criteria to evaluate their performance but also indicate that organization should strive to transfer such capability to existing team members.
5.2 Transnational Team:

Atamer and Schweiger (2003) have stated that companies integrate dispersed resource through different mechanisms: deployment of resource across borders in order to offer solution for global key account or forming transnational new product development teams or identification of global center of excellence and transferring its knowledge through geographical units.

In all cases the ultimate goal is to integrate dispersed resource or competence in different location in so doing building the competence of the organization. Almost in all thesis work we come across (Schweiger et al., 2003; Adenfelt & Lagerström 2003; 2006) deal with transnational project team temporary in nature, in other word, the study focuses on a team established for a single purpose or to solve a common global task of the Corporations.

Authors also have shown that transnational projects will experience the same challenges like other projects run by corporations. Diverse groups of individuals from various functional areas with aim of specific corporate goal will be given a chance to work together; but there will be additional pressure on the team members due to the fact that physical distance, cultural diversity and availability of infrastructure support (Govindarajan and Gupta, 2001; Adenfelt, 2010). However, in some instances this kind of challenges can be minimized if the transnational team takes up a permanent status.

**Proposition 3:** Running a permanent transnational project team will likely allow smooth flow of knowledge sharing and task accomplishment.
Transnational team is seen as an integral part of the product development process in the corporations. In our discussion with site managers it is clearly indicated that project team has helped a lot in finding solutions for different problems that a single site cannot handle.

“Involving in transnational projects is another form of getting more customers and projects and also, it’s a way of complementing the high salary scale of design workers in Beta branch with the low scale for the labor force in Asia so as to be competitive.”

However, they did also point out that there are many challenges that participants of the team should address if they want to fulfill their stated aim. According to Project managers and engineers such kinds of project should be executed *in a very short period of time* and this in most case present a problem to other participating site since it does not give them considerable time to accomplish the task, there is *difference in management style, no chance of meeting the other team members except for scheduled telephone meeting, and there is time and language difference* they have to overcome if they did want to achieve the main purpose of team. The negative implication of this kind of difficulties is that participants find it hard to convey the message to others easily and there is no method or a means were they can make sure that they are clearly understood by others team members which in turn will take time and slow the project process.

“Managers in china normally speak good English but their designers do not speak. This means that you probably cannot have direct communication with china designer but if you want to speak with designers in china this means that the managers have to be there to translate directly some of information to the designers.”

One could see the above challenges from different perspective, but we argue that majority of them are associated with knowledge sharing and coordinating difficulties.
“Yes...yes we have lots of problems between our sides so we always take time to have mutual agreements on how to handle programs. So there have been quite lots of issues like the Chinese mindset are somehow fixed in that when they have a problem they do not say anything but it just explodes on their faces. This is something I have tried to discourage that if they have any problem or problems they have to say immediately not wait until it explodes. But there have been some developments.”

In the interview it is stressed that in many of the transnational projects difference in management style has brought various difference on which checklist to use while evaluating the overall project accomplishment and on how to proceed on the task. If the project is initiated by another site or subsidiary, participants from other site have a lot to do in order to know some of the system used by other units which demands extra work on how to adjust themselves with the other procedures and way of doing things. This explanation provides enough evidence that competence sharing among site is very limited to the extent that there is a big gap on how to handle different technical and non-technical issue of the task. A project manager emphasized that he even got a lot from the formant used by another site even though the project was abandoned since the group could not meet the deadline. One of the reasons he forwarded was that project members were having a lot to learn the way of doing business by units since the project comes from other side. Here it is critically important to note that there is no direct sharing of knowledge which create a problem in developing shared understanding which directly impair project outcome through taking time to adjust difference among team members and we think it is relevant ask the same question asked by interviewee.

“What common method do we have (common tools and management styles) among units”
Another significant factor in the corporation is that majority of the projects in the corporation lasts from six month to one year and in most cases project core teams’ members have a more permanent character, however, the supporting team will have a room for flexibility to participate in many projects. In most instances the team will stay together with little adjustment until the project life cycle runs out. It is obvious that as the team stays for a long period of time together, more understanding and interaction within the group will facilitate active functioning of the project. This is particularly relevant in transnational project and one of the interviewee pointed out that taking a more permanent character will relieve the team from the most common challenges the team has go through if the team constitutes new members all the time. However, one thing we need to notice is that even though the team has some feature of permanent character, it totally depends on the interest of the project manager or site manager to reallocate team members to different groups with different project type, hence, we can say that the team is not fully permanent and there is a room for a little bit of flexibility.

“Yes you need to consider that we need to be flexible in this department in order to survive. So for us it’s better to be flexible in management style than fixed so that managers can be changed. Of course it’s not good for a project before completion since it will affect it but it’s a reality.”

Hence, running a more permanent transnational team can be one way of address lack of competence sharing problem in team. Once team members work on a single project together they will get to know each other and they will get a chance to manage a problem that may emanates from group dynamics but more importantly communication will be easy since each team member will come to understand cultural challenges and develop various ways to manage the differences.
And therefore, individual team members can easily exchange important ideas or share experiences that can be a foundation for strong development in innovative capability.

5.3 Project Performance Monitoring

The traditional approach of performance monitoring draws on time, cost, revenue per unit and quality as the only way of appraising effectiveness and efficiency of a project. It is self-evident that this approach of measuring performance fails to grasp the overall impact and it does not give enough consideration for process or contextual factors. According to (Sarin and Mahajan, 2001; Hoegl and Weinkauf, 2005; and Adenfelt, 2010) outcome focused performance monitoring will miss the value of contextual/process factor that may have critical role in enhancing both employee and organizational level competencies. One can argue that some projects’ outcome may not have that much financial implication to the corporation, however, the knowledge sharing, communication and interaction patterns, coordination and shared knowledge among units can lead to a better breeding ground for interesting ideas that may lead to improvement in the form of new product, service or process which in turn build organizational competence and competitive advantage.

Proposition 4: Adapting outcome and process-related measures of transnational project performance will improve organizational competence and facilitate efficient knowledge transfer process.

Performance monitoring in the corporation mainly bases itself on three important dimensions of cost, time and quality. According to the information from the site and project managers since the company is a low margin business, the cost of the design and manufacturing process play critical
role in successfulness of a project. They should try to find a cost reduction mechanism that will enable them to compete with firms engaged in a similar line of business. The issue of timing is highly relevant both in projects run internally and at transnational level, however, the transnational’s time scale according to them is sometimes framed only by focusing the project initiators interest. Quality is another dimension of the monitoring process where the final outcome of the project will be assessed against already existing objectives.

“It’s very difficult to do because what we suppose to see is if they have kept the time plan even though the time plan is not everything. What is more important is the quality of their work. Also all activity they do ends in some sort of report. This can be looked into together with the quality of the work.”

The finding from the interview indicates that there is no means by which the organization assesses the contribution of individual team member on the project accomplishment. Each employee in the corporation will be allowed to develop three to five goals they will stride to accomplish within a year, however, in our inquiry we did find out that individual performance at project level will have a direct implication on the overall outcome. And some of the project managers and engineers singled out the following factors that could be applied while appraising individual performance at transnational level. Willingness to learn and ability to adjust in changing circumstances, creativity and taking personal initiative to accomplish the task in hand are some of the few critical elements that are suggested by interviewees.

An equally significant aspect of performance monitoring emphasized in discussion was the relevance of having a consistent performance appraisal system. In the site, running and monitoring
a project is not standardized which pave the way for project managers to discover which mechanism to apply while running as well as evaluating performance. This approach on its own can create a chance for managers to explore their creative capability, however, in a limited time interval a standardized way of handling things can help to minimize some of the difficulties the team encounter by creating a chance for the team to learn from past experience and it will save enough time for the team to meet customers expectation. Nevertheless, the toughest challenge according to them is that how they could be able to measure performance from site A while working with another site B and C.

![Figure 3: Project (Performance) Monitoring](image)

This suggests that there should be a common performance monitoring standards that can be used while evaluating performance in transnational project, otherwise, allowing each site to assess performance of the team from its own perspective will not guarantee a fair assessment of the situation and the result from such kind of evaluation can be misleading.
In addition to using common standards while evaluating performance at transnational level, it is equally important what criteria they are going to employee in the monitoring process. Beside to quality, time and cost dimension of the project, project managers and engineers singled out the following elements to be included in the performance assessment format; communicational skill, risk assessment skills, proper planning, and ability to master cultural differences are other dimensions that should be part of the monitoring process. The subsidiary ability to work in the team has to be evaluated accordingly since the successfulness of the project is highly dependent on the action of the others. More importantly the monitoring checklist should be able to encompass criteria that will measure how much customers are satisfied with type of service they receive and their willingness to do business in the future with the organization. Good working relationship with customers and developing a trust among the group has to be taken as founding reason while evaluating any progress of a project. This particular factor we believe is very important since without customers the firm is nothing but advanced engagement with customers can be a means to expand market, source of important information that will help while assessing risk or even help to introduce a new idea and better understanding of customers needs and in turn improve the reputation of the corporation.

“Yes I mean one of the things you can see is how they response to request. This means if they are fast or very slow.”
As an overall assessment, most of respondents believe that success of a transnational project depends on being considerate to other parties or subsidiaries interest and understanding their mind set, establishing good interpersonal relationship and securing necessary support and resource from top management.

“Yes you have to consider that the other parties in the project are people like yourself with their own mindset and cultural characteristics and you have to respect that as long as they respect yours.”

Hence, the findings clearly indicates that employing both outcome and process related measure of performance monitoring will provide a balanced evaluation of the project but more importantly it will help to capture contribution that has a profound impact in building existing competence thereby maintaining competitive advantage. Short terms advantages in terms of financial benefit can easily maximized by utilizing outcome related measure and help to recommend a better way of achieving a higher level in financial aspects; however, process related measure can help to secure future competitive advantage by placing importance on competence sharing in any business dealing among subsidiaries.

5.4 Coordination Mechanisms

Interorganizational interaction plays key role in multinational organization innovative capability by creating a chance to utilize location specific knowledge and competencies. However, its success is highly dependent on coordinating capability of the firm. Ghoshal and Bartlett (1990) have indicated four different forms of context where Interorganizational interaction can take place in multinational organizations. Unitary, federative, coalitional and social choices are the four different ways can be
employed by subsidiaries in their interaction with other units. However, they argued that multinational organization lies somewhere between unitary and federative structures, both of which admit some level of *hierarchical decision making* at top of the inclusive structure.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Type of Context</th>
<th>Social Choice</th>
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<tbody>
<tr>
<td>Relation of units to an inclusive goal</td>
<td>Unitary: Units organized for achievement of inclusive goals</td>
<td>Federative: Units with disparate goals, but some formal organization for inclusive goals</td>
</tr>
<tr>
<td>Locus of inclusive decision making</td>
<td>At top of inclusive structure</td>
<td>At top of inclusive structure, subject to unit ratification</td>
</tr>
<tr>
<td>Locus of authority</td>
<td>At top of hierarchy of inclusive structure</td>
<td>Primarily at unit level</td>
</tr>
<tr>
<td>Structural provision for division of labor</td>
<td>Units structured for division of labor within inclusive organization</td>
<td>Units structured autonomously, may agree to a division of labor, which may affect their structure</td>
</tr>
<tr>
<td>Commitment of a leadership subsystem</td>
<td>Norms of high commitment</td>
<td>Norms of moderate commitment</td>
</tr>
<tr>
<td>Prescribed collectivity-orientation of units</td>
<td>High</td>
<td>Moderate</td>
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Source: Ghoshal and Bartlett (1990)

*Table 1: Different Context of Interorganizational Interaction*

In Unitary structure: units are organized in order to achieve inclusive goals, authority and decision making is at top level and strict norm and commitment characterize this type of structured. However, the federative structure provides some room for subsidiaries to exercise certain kinds of autonomy in decision making and enjoy a limited amount of freedom.

A similar idea was shared by (Miller and Droge, 1986; Tsai, 2002) were two generic types of coordination i.e. formal hierarchical structure and informal lateral relations was suggested. And under the formal structure some the ideas raised includes centralization, formalization and
specialization. In a centralized hierarchical structure activities are coordinated based on vertically imposed bureaucratic processes.

Centralization plays a critical role in determining where the decision making authority will reside especially headquarters and subsidiary relationships. Based on their discussion centralization shows the relative influence or control of headquarters on subsidiaries in the decision-making processes. It is argued that multinational corporation with different units with varying strategic priorities; such kind of vertical link will have a negative impact on knowledge sharing. Hence, centralization may not give the needed freedom and space for managers and employees to share competence generated while dealing with different customers, competitors and working environment.

**Proposition 5:** The stronger the vertical link between headquarter and subsidiary, the lesser interaction and knowledge sharing activity among subsidiaries.

Subsidiaries control critical linkages with key actors in the local environment. (Dorrenbacher and Gammelgaard, 2010) subsidiaries access for local knowledge and capabilities needs to be exploited in order to maximize the most out of existing competence dispersed at various geographical location. This kind of interaction requires free information flow and sharing among units. According to (Miller and Droge, 1986; Anderson and Forsgren, 1996; Tsai, 2002) Informal later relation coordinate activities across different organizational units and even help to build existing formal system. Hence, horizontal link among units will grant more autonomy to subsidiaries to build their competence and improve competitive advantage.

**Proposition 6:** Horizontal interaction among subsidiaries will help to exploit local know how and thereby improve organizational competence.
Integrating/linking together the different units or subsidiaries located at various geographical locations is the primary source of innovative activity in the organization. A very surprising finding was any kind of interaction and exchange of resources among subsidiaries can be initiated by management of unit or it may come from business people in regional or head office. Subsidiaries have more autonomy to make their own decision on how to progress on a certain project, here we did find out that federative style of integration exists in the organization were units are granted more freedom and decision making authority even though they are still expected to adhere for certain requirements of headquarter.

Both formal and informal set of communication channels are employed while running transnational projects. Due to location of the units face to face meeting is impossible and the corporation has established a tool to support online chat and discussion among team members. However, some of the project leaders believe that informal communication works more in small teams that constitute a few numbers of people. In addition, some hold the view that formal communication is a better means of interaction when the project involves participants from different locations and informal channel can be more useful within site projects. The preference for formal communication is given due to the fact that it allows the participating parties to keep record what has been agreed upon.

It was also highlighted that almost in all projects, physical meetings among participants or project managers have not been arranged by the corporation; however, most of them shared the view that it will be more helpful to facilitate more communication among group if some sort of physical meeting can be arranged at least at top management level. This recommendation has a similar view
that shared executive and management development program at certain period of time will invite more interaction and create a learning environment for participants. Moreover, it was also argued that informal lateral communication is preferred than the formal one when it comes to knowledge sharing and more importantly it will help to develop shared understanding and trust among team members.

“Yes that is an activity that we don’t really do unfortunately its difficult. I have never been in china-Malung to visit and they have never been here too. So there is no such activity I am afraid even though it could be a good thing but no.”

Exchange of competence at site level can be enhance if more freedom and decision making authority is granted to subsidiaries. As most of the respondents indicated for the purpose of knowledge sharing horizontal interaction is more advantageous than that of vertical integration.

5.5 Permanent Project Team:

Chen and Lee (2007) argue the importance of selecting a project manager who possesses the necessary technical and administrative skills mainly by focusing on the commitment and competence for successful project termination. Westerveld (2003) on the other hand suggests the following success factors in various projects; project manager and team members (i.e. skills, background), project (i.e. size, uniqueness, and urgency), parent organization (i.e. management support, structure), and external environment (i.e. Political, technological). Hence, the role of project manager on successfulness of project completion is immense. However, in order to fully exploit the competence that resides in project managers, corporations should be able to provide them the freedom to exercise their skills. They should be give a freedom to work on different
projects and able to work with various teams so that the knowledge sharing process can be enhanced in the team

**Proposition 7:** *The more flexibility and freedom granted for project managers, the higher the chance of imparting competence and knowledge sharing among participants.*

As mentioned earlier a project manager should be able to have various competences in order to be able to run the team efficiently. Clear understanding the project goal, good communication skills, decision making ability, competence to manage uncertain situation and financial management skills are some of the qualities that a project manager should have in order to fulfill his purpose. However, project managers should be provided the needed support and must be granted more freedom to exercise their expertise.

All project managers agreed that a project manager must be more flexible to work in different projects this is partially related to ability to secure knowledge of different projects and to enhance ability to work with a new set of individual. A Completely different platforms will grant them a chance to explore their scope of understanding in various areas and provide them with a more thrilling occasion since it result in a challenge that motivate them to prove themselves and it is believed that it will have direct relationship with job satisfaction of employees.

“In my case I like to work with international sites and over the years if you have propositions you actually slowly maneuvers projects into international basis because you promote the activity by incorporating business development phases.”
Hence, giving a chance for project managers to explore their creative capability through taking part in different types of project not only help them to gain experience on various areas but also it will give a chance for other project members to learn a lot from the managers immense experience.
6. Discussions and Conclusions

6.1 Summary of the Findings

This empirical study has shown that transnational teams and projects can help firms to exploit existing competence and retain their competitive advantage. Both employee and corporate level competence will have important role in the functioning of transnational projects. And the most obvious finding to emerge from this study is that corporations are responsible to recognize, protect and reinforce their competence located in their subsidiaries in an effort to combine existing competence and improve innovative capability of the firm.

One of the more significant findings to emerge from this study is that it has been able to indicate transnational project team has been able to support the effort of maintaining competitive advantage by creating a chance for employees to share competence so as to come up with a new combination of resource which in turn improve innovative capacity of the corporations. Knowledge sharing in transnational team will play very pertinent role especially in projects successfulness by enabling, among other things, to develop shared understanding or a shared mental model among project team members. Knowledge sharing is seen as one of the core ingredients in successful transnational product development (Adenfelt, 2010). Hence, this kind of horizontal integration can assist in strengthening competencies of the subsidiaries and enhance their innovative capability.
It was also shown that a transnational team that takes a more permanent character will a limited amount of challenges compared to a team that changes too often. Taking permanent character will create a chance for a group to develop more understanding on various issues that the team has to endure in order to fulfill their purpose.

The second major finding was that performance monitoring mechanisms laid down by the corporation in most instance focus on financial aspect of the project rather it does not give important place to issues that may have a long term impact in terms of enhancing innovative capability. It was indicated that the monitoring models should also include aspects like knowledge sharing, communication and other factors as integral part the checklist since they are one of the means the organization can use in order secure integration and promote competence sharing among subsidiaries.

6.2 Conclusions

- The importance of competency exploitation at corporation level is very critical considering the various aspect of competence. Certain capability in one subsidiary might be a resource without use since certain organizational competence may not have immediate value to the organization; however, it can be useful at industry or corporate level with efficient coordination of such kinds of competencies (Schweiger, Atamer and Calori, 2003; Lokshin, Gils, and Bauer, 2009). Hence, the capability could be a source market and another opportunity if exploited properly through cooperated efforts of units located in different geographical locations.
o Beside to the composition of project team (Govindarajan and Gupta, 2001), permanent nature of the group will have its own share of influence on the final outcome of the project. A team with a permanent character will get an opportunity to focus on the project rather than putting a considerable amount of time in diffusing problems related to group dynamics. Furthermore, team members especially project managers should be given an opportunity to work in different types of projects not only to help them gain experience on how to deal with team members effectively but also it will matter for personal development of the managers (Patanakul and Milosevic, 2008)

o Various models and mechanisms put into practice by the corporations can help to build the competitive advantage of the firm. The performance monitoring model that embrace issues that goes beyond cost, quality and time dimension of the project can be able to promote good future business performance and can support constant exchange of information among subsidiaries (Marques, Gourc and Lauras, 2010; Adenfelt, 2010).

6.3 Implications

The findings in this study has indicated that competence constitute the integral part of transnational projects. Having a clear image or understanding on organizational capability can facilitate the leveraging activity very well especially in the case of transnational projects. Both at individual and organizational level competence should be given equal importance and the necessary set up should be there in order to build and sustain the unique resource base of the organization.
Beside to having the necessary skills, knowledge and personality, efficiency and effectiveness in transnational projects can be affected by other kinds of organizational capabilities like coordination/integration competencies. Hence, this study has shown that to be successful multinational projects needs more than a single or two resource bases where organizational set up or framework should be establish to enhance its contribution to innovativeness. *While establishing* a team for transnational project purpose organization should give important attention who should be part of the team and what kind of working environment should be created in order to see the team perform very well.

### 6.4 Limitation

The most important limitation lies in the fact that case study was used as the primary method in the study which will cause the empirical generalization to be weak and the numbers of interviews were limited. The current study has only examined explicit knowledge nodes and the tacit part is not covered by the study, hence, it will weaken the conclusion of the study. Thirdly, the study did not include the aspect related to customer’s perception of competence (i.e. core-competence) but it did stress on competence in general terms.
References:


Appendix: Interview Guides

1) What unique contribution (competence/skills) do you believe that your subsidiary adds to head office and to other plants/units in Flextronics?

2) What unique system, mechanisms, routines and process/functions that differentiate your subsidiary from others within Flextronics?

3) How do you establish transnational team?

4) What are the main Success factors in transnational projects in your opinion?

5) What are the key skills an individual need to participate in transnational teams? (Technical or Business related knowledge)?

6) What kinds of skills or competencies do think is relevant for a project leader to have in order to achieve projects goal?

7) Do you measure individual project member’s contribution? If yes, how do you measure it/

8) How is the project performance monitored, and what criteria do you use?

9) What factor other than time, quality and cost do you think is relevant to consider while measuring effectiveness and efficiency of a certain project?

10) What common or particular factor do you think is needed to be considered while evaluating transnational projects among subsidiaries?

11) Who initiate exchange of skills, engineer and project management experience among subsidiaries?

12) What form of communication channel do you use in order to interact among team members?

13) What measure do you take to create harmony and integration in transnational team?

14) What positive impact do you think has the project team being permanent?

15) Do you prefer fixed or flexible approach of managing a project? (Why)
16) How do you monitor team member’s motivation? Do you think that team members will be interested if a project offers them skill development, or if the project is important to the organization?