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MASTER'S THESIS

**Analyzing the collaboration between Finland and Indian offices in an
engineering consulting firm.**

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ABSTRACT

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The thesis aims at analyzing the collaboration between the case company's Finnish (PBU) and Indian (GEC) offices. The topic revolves around the offshoring concept and focuses explicitly on captive offshoring and its pros and cons. The thesis also explains management approaches and factors affecting offshoring. The results are analyzed from the perspective of the employees on collaboration and the corresponding suggestions.

The research approach used in this thesis is a combination of qualitative and quantitative studies that followed significant information gathering tactics. The qualitative method plans to emphasize on the perspectives and experiences of employees whereas the motive of the quantitative data was to find an exact and reliable measure which is achieved by conducting a survey and by collecting information from GEC.

The research objective is apportioned in three parts viz., analysis of three years tenure, present issues, and their relevant suggestions. The workflow has been analyzed quarterly over the past three years and examined with various angles and aspects. A cause-effect diagram is developed to summarize the perspectives of the employees of both the teams. Moreover, glitches were explained in detail that was likely affecting the steadier workflow. Finally, several points are suggested on which both parties need to focus and to eliminate the issues for a better future relationship.

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Writing the Master thesis was not easy; it was instead a challenge for me to write impartially as I have already worked in both the teams (GEC & PBU). I have tried my best to collect all possible imperative data from both the offices, by interviewing, surveying, and by analyzing documents from GEC. I want to thank all those people who have facilitated me attainment the required data and helped me writing this thesis for the improvement of the PBU-GEC collaboration.

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Table of abbreviations

Abbreviation	Description
CAD	Computer Aided Design
GEC	Global Engineering Center
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
HOD	Head of the department
IDV	Individualism vs. Collectivism
IVR	Indulgence vs. Restriction
LTO	Long-term vs. Short-term orientation
MAS	Masculinity vs. Feminity
MBV	Market-based view
MEP	Mechanical, Electrical, and Plumbing
MNC	Multinational Corporation
PBU	Principal Business Unit
PDI	Power Distance Index
PESTLE	Political, Economic, Social, Technological, Legal and Environmental
QC	Quality Control
RBV	Resource-based View
RV	Relational View
SCP	Structure-Conduct-Performance
TL	Team Leader
UAI	Uncertainty Avoidance Index
UK	United Kingdom

1. Introduction

1.1. Research Background

This thesis aims to study the collaboration between the Finnish and Indian offices of the case company. The idea for this topic was developed because of my interest as I have worked in both the locations of this organization. The theories used in this thesis, mainly revolve around covering the process of captive offshoring, analysis of the current collaboration situation, associated problems, pros, and cons. The focus of the organization is to make the coordination more efficient and trouble-free, to generate higher revenues and to strengthen the technical team and to have a better hold in the competitive corporate world.

It is not a secret in today's corporate world that outsourcing is a significant aspect of domestic and international business. The outsourcing phenomenon came into being in the 1950s, but not so widely practiced until the 1980s (Hätönen and Eriksson, 2009). Outsourcing is currently playing a vital role amongst large businesses as it is one of the most effective ways of staying ahead of competitors. However, unless it is well planned and accurately analyzed, it may bring challenges and issues.

The Case company was founded about 70 years ago and is one of the world's leading engineering, design, and consulting company. Its presence exceeds 30 countries, mostly the UK, Nordic, Continental Europe, Asia-Pacific, Middle East, and North America. With a significant presence throughout the world, the company has developed its culture and maintained a high level of customer satisfaction. The organization works primarily in buildings, Energy, Water, Environment & Health, Planning & Urban Design, Transport, and Consulting for Management. Having its presence in India for more than 15 years and successfully working on domestic projects, the company planned to expand its presence and develop a 'Global Engineering Center' (GEC). The business development team made a strategy to establish a workplace that can primarily provide a parallel resource for several global offices and provide cost-effectiveness to compete with rivals.

Today the Global Engineering Center has grown tremendously to 350+ employees in just a small span of 3 and half years and has benefited the organization by supporting Nordics, UK, and Middle East projects. The thesis topic is to study the collaboration of the Company's Finland

office (PBU) MEP team and its GEC team. Furthermore, to identify the challenges that have been faced by the technical team working in both countries.

1.2. Research questions, objectives and research method

The primary purpose of this research is to study the collaboration of the case company's Finland and Indian offices for MEP teams. Are they there, where they were supposed to be? Is the workflow steady? What hitches do the teams have? The research question has been developed to study and analyze the points. These are shown concisely in table 1.

Table 1- Research Questions and Objectives of the thesis

Research Question	Objective	Method
RQ1. What is the current state of workflow performance and collaboration between Indian (GEC) and Finland (PBU) offices?	To assess team growth developed in India since its inception. Moreover, to analyze the steadiness of the workflow during the tenure of 3 years.	Studying the data of delivered offshored hours, billing ratio, customer satisfaction, and survey.
RQ2. What are the possible problems/issues to attain successful collaboration?	To comprehend the problems in collaboration and related causes.	I. Information based on the interviews of employees of both the teams. II. Information gathered by surveying PBU employees.
RQ3. What can be done/suggested to make the process steadier/better?	Skilled workforce in GEC will make collaboration stronger, which overall support the organization to be more stable and being competitive in the market.	

Since the development of GEC in 2015, the company has invested a lot financially, human resources, time, etc. Now, the time is to evaluate the performance and the actual situation of the collaboration. Thus, the primary purpose of the thesis is the first research question. The second and third research questions aim to comprehend the issues and the obstacles faced by both the teams, whether it is technical, managerial, or strategical. Moreover, how to tackle the raised problems and to make the working more efficient and steadier.

The main reason for developing a team in India is not only about cost reduction, but also to boost the technical strength and increase human resources. Interviews and survey have been conducted (anonymously) so that the management get the root causes of the glitches inside the units. These procedures will help in attaining the ideas from the employees, which might make things steadier and efficient as they are supposed to be.

1.3. Research structure

The methodical commencement of these studies initiates in Chapter-2 under the Literature review section topic, figure1 depicts the flow diagram of the research in a step by step method. The Literature review starts with outlining the concept of outsourcing, which involves the reasons for outsourcing, followed by the glimpse of adaptation, benefits. In every business strategy, there are specific issues and risks associated which directly effects finances and the market value of the business. This chapter will also be focusing on the type of risk associated with the outsourcing business.

The strategies that Multinational corporations follow are based on three different views: market-based, resource-based, and relational views. All of the three are explained thoroughly; however, as the organization is following the Relational view, we have tried to emphasize on the same explicitly.

Chapter 3 will be intensely focusing on the factors which may affect the business of sourcing coordination between two countries. Such factors are generally based on social, economic, political, or even different cultures. PESTLE is one of the essential and related frameworks used in this research for political, economic, social, and some others. Furthermore, Hofstede's Cultural factors might also play an important role to analyze the cultural elements of the countries.

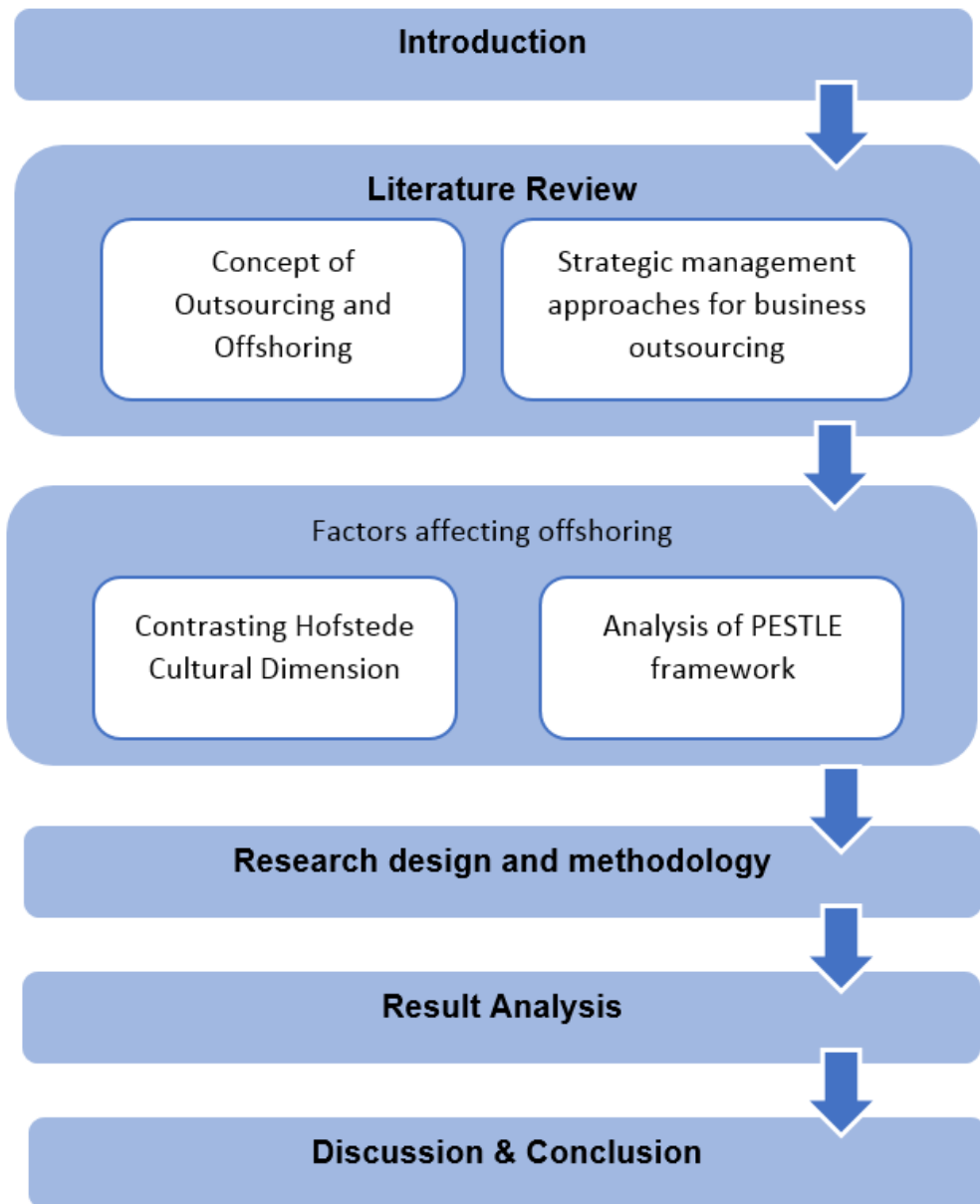


Figure 1- Thesis structure

Chapter 4 focuses on research design and research methodology to find the answers to the research questions. Firstly, the section describes the concepts of qualitative and quantitative data and then, it emphasizes how the data was generated to obtain the results.

The next chapter, i.e., chapter 5, will be analyzing the results that are generated by the survey, interviews, and the data collected from the organization. The sections are distributed and explained thoroughly as per the research questions and related observations. Finally, chapter

6 is a conclusion part, and it would wrap up the research's contribution, the research finding implication, and the research's limitation. The recommendation for future studies is also based on the findings of this study.

2. Literature review

2.1. Concept of outsourcing in a business

Increased global competition has enforced companies in every way to develop efficiency. It is not viable for organizations to rely on in-house knowledge. It is advisable to reach out to their best ability and utilize external resources. This increased usage of external resources and networks has enabled businesses to maximize their capacity. Outsourcing generally explains the shift of economic actions between institutions and thus holds the ownership/control (Cheon, Grover and Teng, 1995)

Outsourcing and offshoring are still considered as new aspects of global finance. However, phenomena which they directly related to the division of production processes and that can be carried out at different locations and by separate bodies are not new. While outsourcing and offshoring are related to the trend that has been explored in the economic literature for a long, but their concepts go way back over the last three decades. Both the phenomena direct to many economic matters, which includes division of labor in the community, global trade, and production factors flows internationally.

2.1.1. Contrasting outsourcing and offshoring and their related terminologies

Outsourcing

In the field of engineering services, Outsourcing' was familiarized in 1979 by German car manufacturers (Amiti and Wei, 2005). However, according to the dictionaries, the origin of the word outsourcing is related to the verb 'outsource' which is based on the 'out' and 'source.' Whereas the term outsourcing has begun to be used in technical journals about three decades ago. The search results for "outsourcing" in the records of the scientific article ScienceDirect and ProQuest show that Tsurumi and Tsurumi published the first article citing 'outsourcing' in 1983.

Often, when outsourcing studies are carried out, it is seen that the literature focuses on production outsourcing. Whereas long-term relationships are beneficial in both manufacturing outsourcing and service outsourcing, however, suppliers need more collaboration to perform in service industries (Feng, Fan and Li, 2011). For successful outsourcing, it is the proactiveness in relationship management, which counts. (Handley and Benton, 2009). Outsourcing is one of

the practical ways for organizations to escalate the competitiveness in the market. Researchers have put forward arguments both for support and against the outsourcing to attain a feasible competitive edge (Gilley, 2002).

Offshoring

The term offshoring is derived from the adverb 'offshore' which constitutes 'off' (away from the side) and 'shore' (coast). The scientific publication databases mentioned, Kotabe (1990) presented the oldest article referring to offshoring, which describes describing the relocation of production abroad. The terminology “offshoring” has only recently appeared and has often been used to mean “outsourcing” which is not applicable in every case. In his book of Offshoring J. Urry argued that one aspect of the offshoring is that, since 1970, there is a mass movement of jobs to a lower labor cost market. Even at the end of the last decade, Offshoring remains a widespread software development practice, particularly for countries like China, India, Ukraine, and Russia (Hätönen and Eriksson, 2009).

2.1.2. Relationship between offshoring and outsourcing

Outsourcing has been referred to as the movement of economic activities from one location to another (or some country). However, it is not right in all cases; offshoring is the phenomenon which suitably describes the relocation of activities far from one's country. Both aspects can occur together. Below is the different combination of the two, which gives a better understanding of the terms.

- 1) Captive offshoring can be explained a phenomenon of buying any service or product from a subsidiary located at a different part of the globe.
- 2) Offshore outsourcing is a phenomenon in which a service or product is bought from an external party situated far from the country.
- 3) In-house execution is the term in which the activities are done by the same company and within the boundary of the country.

Onshore outsourcing referred to as the procurement by an external party.

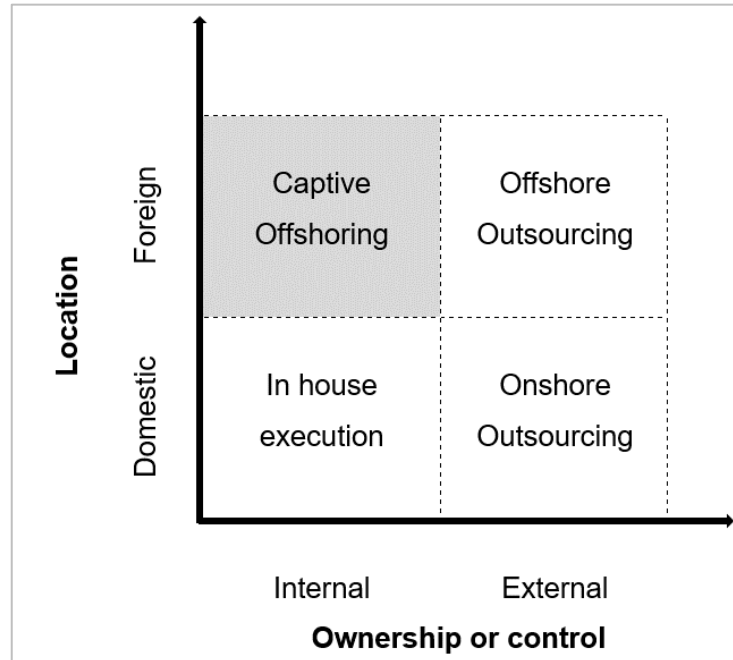


Figure 2: Relationship between offshoring and outsourcing (Hätönen and Eriksson, 2009)

2.1.3. Captive offshoring

Multinational corporations (MNCs) take advantage from their existence in different countries to create and enhance their competitive advantage. Earlier, many Western multinational organizations have been arguing on the question of whether to transfer some activities to foreign markets to increase their competitiveness. Today MNCs have cross-border offshore for some of their services., whereas earlier they were only focusing on the production of goods. Undoubtedly, cost is a significant factor for the service offshoring in Asia or parts of Central and Eastern Europe.

Sometimes people get complex offshore outsourcing with the captive Offshoring, but, both terms are very different from one another. Offshore outsourcing can be explained as a phenomenon where a firm handle some of the activities to a third party existing abroad. However, Captive offshoring occurs between companies that share common ownership but are located at different locations around the globe and maintains possession and control (Kedia and Mukherjee, 2009). Research shows that operating centers in low-cost countries owned and managed by the companies, not only push the boundaries of cost, productivity, and quality but they also start driving superior customer experience and providing consumer insights (Gray, Roth and Leiblein, 2011).

The case company strategized to implement the captive offshoring but in a unique way. Usually, a company sets up an office or production house in another country where the skills are available at a cheaper rate. In the present era, China and India are the two giants for the captive offshoring as there is abundance of skilled human resource. Apart from many other legal and technical prospects, around 10% of people in India can communicate in the English language, which makes it the second largest country in the world. These are one of the reasons why a case company has strategies to set up a Global engineering center. This center was not developed only for Finnish projects, but a massive set up transpired in which Finland, Norway, Denmark, Sweden, UK, and the Middle East have their dedicated teams. Moreover, if there is a scarcity of workforce, these teams can share their workforce. In this way, these teams were not only helping their respective organizations but also helping to maintain a balance within the company too.

Vivek et al. (2008) explain that Captive offshoring results lesser discontinuity in production, the quality rises, and a better-organized process of migration. Whereas increased administrative and management expenses, as well as supervisory responsibilities, may cause complications. Madhok and Stratman argued that, regardless of ownership choices, governance models can alleviate escalating challenges throughout the execution process. This could comprise of risk controls, quality balancing, profitability, and monitoring of processes (Broström and Skagen, 2014).

2.1.4. Risk associated with offshoring

Offshoring-related risks introduce new complications associated to operations across countries. Feeny et al. (2004) divided the potentially severe risks into three different parts, and these are transformation, relationship skills, and delivery (Kumar, Kwong and Misra, 2009). Transformation services are determined by risk factors such as the transfer of technology, people at risk during material transfer; whereas relationship skills consist of reputation risk, compliance risk, and country risk. However, increased delivery time can directly result in the strategy, operations, and credit risks to the organization. Figure 2 illustrates a diagram with possible risks associated with offshoring.

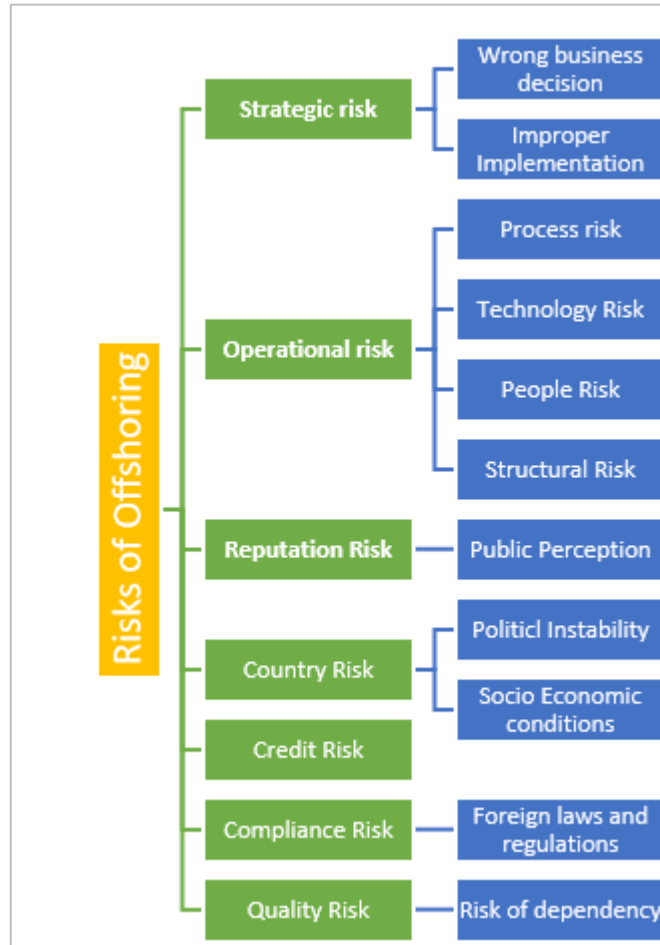


Figure 3: Risks of Offshoring

Quality Risks

Several studies indicate that captive offshoring and quality risk go hand in hand. Gray et al. (2011) emphasized that captive offshoring activities result in a quality risk to the company, it may cause due to physical and cultural and distances, legal differences, educational gaps between countries. Moreover, the geographical and cultural distances may hinder the communication and result in the form of risk of information (Gray, Roth and Leiblein, 2011). Employees need to follow daily reporting measures to safeguard the operation and run at low-quality risk. It is difficult to monitor employee behaviors from afar (Tosi, Katz and Gomez-mejia, 1997).

Risk of dependency

Another relevant term that scares the company's managers during outsourcing is the risk of dependence. In a case where the supplier company has the upper hand to the client, there is a high risk of the quality of the production as the client is entirely dependent on the latter (Lonsdale and Cox, 1998). Undoubtedly, the decrease in the product quality is not always due to the supplier's opportunistic conduct, but lack of capabilities can also be one of the reasons.

Strategic risk

Strategic risk is related to those risks that affect the long-term scheduling for the organization. It is a "risk to earnings or capital arising from adverse business decisions or improper implementation" (Kumar, Kwong and Misra, 2009). Hogan argues that outdated inventory, intellectual property, and currency risk are underestimated and at the same time, the wage savings are overestimated by the manufacturers very often. Strategic risks come into existence when a firm offshores some of its tasks (instead of its core competence) to another service provider which fails to achieve the goals. It is advisable for the firms to communicate its long-term targets and planning to its service providing partner to avoid any strategic risk in future (Kumar, Kwong, and Misra, 2009).

Operational risk

Operational risk is another factor to consider while deciding the offshoring the tasks. These risks are associated with the process of execution, exist due to probable slippages; these are the risks to the quality, cost, or speed. The income of the organization is directly proportional to the speed, quality, and the value of the process execution, and it is one of the sources of competitive advantage to the organization. The above-discussed risks are results of the failures of three factors; these are employees, technology, and processes. Technology risk is related to technology failings linking in the organization with offshore service providers, whereas people risk is associated with a higher average turnover of offshore jobs and a low level of skill amongst the workers.

Larsen et al. (2013) explain that coordination involves complexities like hidden costs, lesser face to face meetings, and most importantly, the limitation in rationality. These points make the coordination a complex phenomenon and a sort of issue in offshoring tasks. These challenges should be kept on the highest priority, as it comprises a high possibility of task misunderstanding and corresponding deliverables. However, there are possibilities to explain

the problems through e-mail, telephone, or chats than a face-to-face meeting. Moreover, nowadays, some application allows people throughout the globe to connect over the internet and share their screen with video calling facility in real time (Kumar, Kwong and Misra, 2009).

Trent et al. also argued that in Captive offshoring process, people are scattered throughout the world, which makes a face to face meeting, a challenge. Secondly, duple responsibilities and pressure of delivery time can result in conflicts among the workers sitting in different locations. They also focused on some essential points which articulate that, people working for a specific task, sitting in different locations of the world can have different cultures, languages, and working environments. This can result in misunderstandings during coordination and can consume more time than planned, which can affect production and delivery (Kumar, Kwong and Misra, 2009).

Process risk

Process risk is a subcategory of operational risk, and it revolves around the assessment and measures of how effective and efficient a process is. In a company, if the quality of the delivery product goes down to a set limit, the management can meet to facility department and request for the improvement in the process for better result of deliveries. However, in the case of offshoring, the same situation cannot be handled in the same way. The management of the company should have faith in the competencies of the offshore facilities. This trust should be considered on the other parties while planning for offshoring.

Structural risk

Aron et al. explained structural risk as to the inherent risk for an offshoring firm, and it occurs when the structure of the offshoring firm fails to match with the structure of the offshored partner (Aron and Singh, 2005). They emphasize that this type of risk is also a result of ignorance of offshoring partner in investing employing people or in (their) training as promised during the negotiations phase. In other words, structural risk can be considered as a part of the operational risk assessment because it is closely connected with it. This risk can be mitigated if the companies have supervision on the provider's (offshored partner's) deliverables. This is now a day very easy and practical for the Companies, to track the providers work in real time with the help of relevant IT tools. Another way to mitigate is by proper gauging the quality of work and deliverables with the help of metrics developed by the company. This means that there should

be some checklists and the other tools developed by the company to gauge the Service provider's quality of work.

Compliance risk

Another risk which falls in the category of operational risk is Compliance risk. It is one of the prominent factors which needs attention while planning of offshoring the business. It directs to the chances of lower income because of the rules and regulations violations (Kumar, Kwong and Misra, 2009). As there are different rules and regulation in every country, so it is advised that an organization should research thoroughly about the laws of the service provider (partner's) country. PESTLE and SWOT are incredibly useful tools which help in the process of developing a strategic plan for offshoring. They can be used separately, however, becomes significantly efficient when analyzed in a combination. It will help the company to observe and follow the laws of the partner country and minimize the risk of laws violation.

Reputation risk

Reputation risk is a risk that affects the image of the company in its homeland. The general view of the public is a bit negative towards offshoring, and this is because they see it as the dip in the employment for numerous white-collar employees. This negativity in public and adverse advertisement may hamper the company's image resulting in lower domestic sales. There is considerable pressure to keep local jobs ('The Real Cost of Outsourcing : The Good and Bad : the National Magazine of Business Fundamentals C & FM', 2004).

Credit risk

Credit risk has a significant effect not only in national companies but in international too. However, it has a more considerable influence on Multinational companies. There are stringent guidelines and laws in some countries that empower the organizations to recover receivables from accounts. The situation in almost every other country around the globe is different and unique. However, there are many countries where the organization is not allowed to claim their dues due to the inexistence of sound policies. This inability to trail the payment creates hindrance to business processes.

Country risk

Country risk is the definitive source of uncertainty for an organization performing offshoring. It focuses on political, socio-economic environments, and nation-related matters (Kumar, Kwong and Misra, 2009). If an organization plans to offshore to a politically unstable country, it becomes imperative for the organization's business to find answers to country-oriented risk questions. War creates uncertainty and numerous other factors, which must be considered in an operational context. Besides war, countries experiencing political chaos do not offer a fruitful offshoring environment. The laws governing the offshore facility are affected by political uncertainties, and with this, additional compliance risk uncertainty is eliminated. However, the country risk can be mitigated by understanding compliance and other risks associated with it.

2.2.Strategic management approaches for business outsourcing

Outsourcing process is an overall sophisticated system of numerous activities which carries several managerial predicaments. However, theories have been developed and studied to help the academics to understand the essence of these activities and to help professionals effectively manage the entire process. Strategic management is an essential topic in the management sciences. The main objective of strategic management is to understand how a company can become competitive in a sustainable way. Such an aim is undoubtedly clear and relevant, but the drawback is that it is complicated with a wide variety of different concepts by many competing theories. On the other hand, it provides alternative perspectives on how an individual firm can be competitive by successfully implementing the approaches.

The Business environment sets demands and constraints on what and how the company can operate. It also defines how the company can profit on markets. Every organization has its own internal culture and environment, but then it is essential to know how it utilizes its assets to get a competitive edge over the others. Secondly, what are the strategies the organization is going to adapt, which suits its internal environment and legacy. The business environment changes frequently, and it is imperative for the managers to keep a track on market changes and have a futuristic eye. The basis on the experience and future transitions they need to select and adapt the strategies for a sustainable competitive advantage. Here are some of the most utilized strategies which provide a broader prospect of asset utilization.

- I. Market-based view (MBV)
- II. Resource-based View (RBV)
- III. Relational View (RV)

Below picture explains a timeline presentation of these three concepts. We will study all of them broadly in the next section.

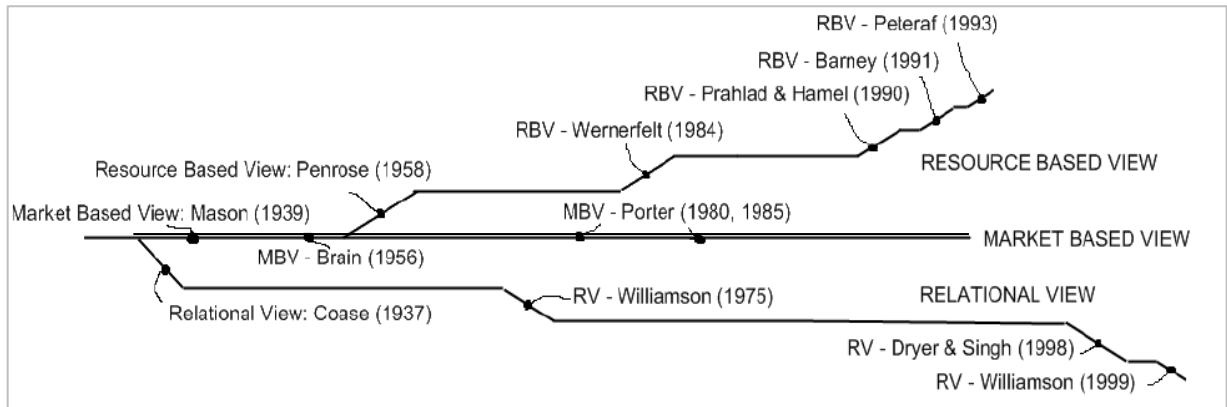


Figure 4: Timeline of the main literature themes (Kortelainen and Ritala, 2012)

2.2.1. Market-Based View (MBV)

Market-based view (MBV) projects business policies and strategies on the basis of trend for any industry. It assists in selecting the market combination of the product, where the corporation uses its approach. The strategic position of a company is determined by how it performs similar activities to other companies, but in very different ways. In this regard, a company's profitability or efficiency is determined exclusively by the framework and social dynamics of the sector in which it works (Hui - Ling Wang, 2014).

The Structure-Conduct-Performance (SCP) framework of Bain (1968) and the 5-force model of Porter (1980) (developed on the SCP frame) are two of the most popular theories in this category. The company's value sources are embedded in the competitive situation that characterizes its strategic position in the end-product. As per Harvard Thought School and IO Economics, the structure-conduct-performance (SCP) paradigm became prevalent to assess the relationship between the structure of a sector, its behavior, and its results from the 1940s to the 1960s. Researchers have promoted the SCP paradigm (Prahalad and Hamel, 1990) and explained why organizations need to develop a strategy to respond to the industry structure in which the company competes to acquire competitive advantages.

Porter addressed a significant weakness of the SCP paradigm in his paper “How Competitive Forces Shape Strategy” and his books “Competitive Strategy and Competitive Advantage” (Hui - Ling Wang, 2014). It was challenging to derive firm-specific strategies and recommendations from the framework; whereas Porter developed MBV, which was based on the concepts of IO economics. Michael Porter's 5 Forces Framework is perhaps one of the most omnipresent frameworks presently studied in business schools and used by management academics. The structure offers a systematic method for evaluating competition within a sector, and firms can use it to identify desirable sectors for entry. These forces are:

- (1) The threat of entry by potential competitors
- (2) The threat of substitute products
- (3) Bargaining power of suppliers
- (4) Bargaining power of buyers
- (5) Jockeying for position among current competitors



Figure 5: Porter's five forces (Porter, 2015)

Porter subsequently proposed the following three basic approaches that a firm may follow to attain a higher industry position, namely:

- I. Cost management, i.e., production at a lower cost than the competition.
- II. The distinction of products through features that attract customers, such as high quality of the product, branding, and innovative product features.
- III. Emphasis on a narrowly defined market section.

Porter's model allows organizations to analyze their industry's current situation structurally. Wang (2004) argued that The Porter model is based on a classical perfect market, as well as a static market structure, which is certainly not found in modern dynamic markets. In addition, several industries are engaged in multiple interrelationships, making the five-force model difficult to understand and analyze. Prahalad & Hamell (1990) highlighted the seriousness of the (heterogeneous) resources which companies utilize as a primary source of competitive advantage. The focus of strategic management studies has shifted, with resources and capabilities, from industry structure (MBV) to internal structure. Resource and capacity competitive advantage is more critical than just product and market positioning to contribute to sustainable competitive advantages (Prahalad and Hamel, 1990). This strategic approach is known as Resource-Based View (RBV), discussed in the next section.

2.2.2. Resource-based View (RBV)

The basic of RBV was originated in 1959 by Penrose, which suggests that the organization's controlled, organized, and used resources are more important than the industry structure. The RBV approach from the 1980s onwards emphasizes the company's internal environment as a driver for competitive advantages and also highlighted the resources that companies have evolved to compete in the environment. Wernerfelt viewed the firm as a bundle of assets or resources, coined the term 'resource-based view' much later. In his paper "A Resource-based View of the Company," Wernerfelt presented the RBV and laid the groundwork for the perception of resource-oriented theory (Wernerfelt, 1984). During the early strategic development phase, Hoskisson's account of strategic thinking development focused on the company's internal factors. (Furrer, Thomas and Goussevskaia, 2008; Hui - Ling Wang, 2014). Contrary to MBV, RBV focuses primarily on the company's resources and internal capacities as a source of competitive advantage. Since every company has its own history, it has grown over time, gained resources, skills, and experience along the way, and has formed an

organization. A company differentiates from the rivalry by the optimal combination of these resources and their effective utilization to specific issues and prospects. Therefore, the objective of a resource-based approach is to implement a strategy centered on the company's diversified resources and not by rivals.

In 1991, Barney identified four resource features required as a potential source of sustainable competitive advantage in its widely cited VRIO framework: value(V), rarity(R), inimitability(I), and organization(O) (J.B., 1991).

Is a resource . . .					
Valuable?	Rare?	Difficult to Imitate?	Supported by Organization?	Competitive Implications	Performance
No	---	---		Competitive Disadvantage	Below Normal
Yes	No	---		Competitive Parity	Normal
Yes	Yes	No		Temporary Competitive Advantage	Above Normal
Yes	Yes	Yes		Sustained Competitive Advantage	Above Normal

Figure 6: VRIO frameworks (Barney and Wright, 1998)

- I. **Value:** The resource should be valuable so that it helps in exploiting the opportunities. Moreover, neutralizing the threats to the firm.
- II. **Rarity:** To provide a competitive advantage, a resource should not be controlled by many companies. Rarity prevents the use of the same valuable resource by many competitors, thereby preventing strategic parity. Specifically, firm-specific, internally established resources that cannot be purchased on factor markets meet the rarity criterion.

- III. **Inimitability:** A valuable and rare resource can deliver a momentary competitive gain for the company. However, the resource must resist imitation by duplicating or replacing similar resources in order to remain a long-term and sustainable benefits. The inimitability of a resource depends on many factors, including its historical context, how it was developed, and social complexity.
- IV. **Organization:** There is excellent potential for a valuable, rare, and inimitable resource to offer a continuous competitive advantage. The recognition of this intrinsic ability relies on the capability of the company to thoroughly leverage the resource. The competitive advantage will only be achieved if the organization adequately facilitates resource utilization through its monitoring systems, management systems, and compensation policies.

Teece et al. (1997) illustrated the term dynamic capabilities as “the ability of the company to assimilate, develop, and rearrange internal and external skills to address sudden changes in business environments”. Whereas, Grant (1996) defines organizational capacity as “the ability of a company to repeatedly perform a productive task that is directly or indirectly related to the ability of a company to create value by transforming inputs into outputs” (Grant, 2012; Hui - Ling Wang, 2014).

The concept of Core Competencies

Prahalad and Hamel (1990) defined core skills as mutual learning in the organization, focusing on how diverse production skills can be coordinated and integration of different technologies (Prahalad and Hamel, 1990). The concept of core competency mainly implemented to develop and test different decision frameworks for outsourcing, and soon become very popular among the researchers. The skills of the offshoring party are also considered as one of the essential factors influencing the success of outsourcing (Levina and Ross, 2003; Feeny, Lacity and Willcocks, 2005).

Knowledge-based View

The knowledge-based perspective offers the idea of what people cooperate in manufacturing of goods and services (Perunović, 2007). Most of the researchers who focus on the RBV believes that knowledge is a generic resource, with significant features that make it the top valued and vital resource. Evans (2003) noted that the use of material resources in the

company decreases, whereas the application of knowledge assets increases as much as it is used. (Knecht, 2013). The knowledge-based view separates between two ways of sharing knowledge. (i) The generation of knowledge and (ii) the application of knowledge. (Perunović, 2007).

In 2002, Tiwana argued that it is easier for other Organizations to copy technology, principal, market-share or even the sources of the products, but knowledge is the only resource which cannot be replicated by anyone. In 1999 Zack gave a theory that the organizational knowledge can be divided into three groups viz: (i) core, (ii) advanced and (iii) innovative. Core knowledge is the ultimate wisdom that allows a business to survive in the short term on the market. Advanced knowledge offers similar expertise to the firm's competitors and allows to actively compete in the short term and become a market leader by developing innovative products and services (Hui - Ling Wang, 2014).

2.2.3. Relational view

Another essential phenomenon studied in the field of outsourcing is the relational view offered by Dyer and Singh in 1998. The theory focuses on how organizations can achieve competitive advantage while dealing with others in an inter-organizational working atmosphere. Secondly, it gives the concept of how and on what aspects the companies choose their future partners and how they manage the relationship with them (Perunović, 2007). It was also used to study the phases of transition, relationship management, and reassessment. This makes the relational view the only concept pragmatic in the study of all stages of the outsourcing process (Perunović, 2007).

Furthermore, it criticizes the concept of RBV, and argues that a company is often unable to overcome the challenges in the global competition through its resources and capabilities. Therefore, it is advised that the firm should enhance their abilities and at the same time, collaborate with other firms to create a relational network to mobilize external resources. Below is the diagram which illustrates the networks of a firm with an outsourcing partner. It allows the firm to utilize the competencies of the partner firm to make themselves more competitive in the market (Kortelainen and Ritala, 2012).

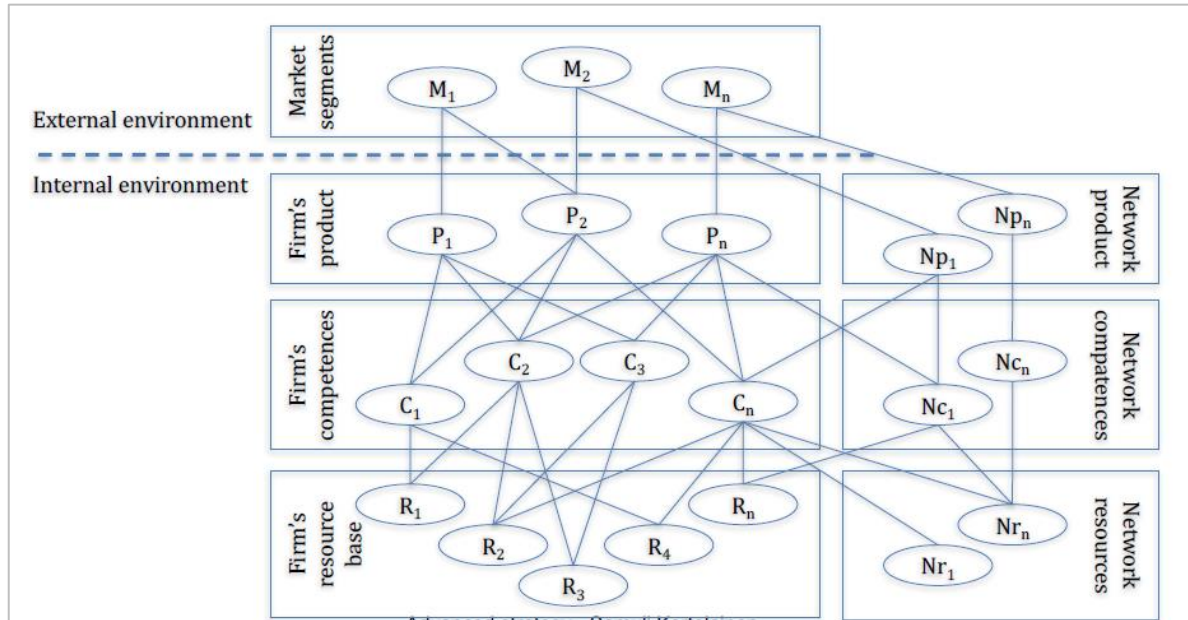


Figure 7: Implication of RBV with Relational view (Kortelainen and Ritala, 2012)

Dyer and Singh (1998) stated that, “relational rents are possible when alliance partners combine exchange or invest in idiosyncratic assets, knowledge, and resources/capabilities, and/or they employ effective governance mechanisms that lower transaction costs or permit the realization of rents through the synergistic combination of assets, knowledge or capabilities” (Singh and Dyer, 1998). They acknowledged four relational points as foundations of competitive advantage:

- (i) Relation-specific assets,
- (ii) Knowledge-sharing routines,
- (iii) Complementary resources and capabilities, and
- (iv) Effective governance.

2.2.4. Summary of the strategies

From the above-discussed literature review, there is substantial variability in the conceptualization of strategy. Each of these strategic approaches emphasizes different aspects of formalizing the plan of the company. These views directly or indirectly refer to the question that, why some companies are more successful than others, and secondly, how a company can enhance its performance and attain a competitive advantage over its competitors. It is practical to say that no strategy is ideal. Moreover, each of these strategic approaches provides

tools for analyzing and measuring objects. We can say that the company's final strategy is highly dependent on which strategic logic the company focusses on. In my opinion, the organization should focus on three essential aspects to achieve a steadier workflow and competitive advantage these are: Political, strategic, and operational. Moreover, workforce management and resource management are also one of the factors which affect the workflow for a competitive environment. However, these are the topics for future research and can be focused on separately.

3. Factors affecting the captive offshoring

Multinational companies have a set of standard rules and policies for employees, but it is noticeable that offices in different locations follow them differently. Also, people in the same organizations have different attitudes and behaviors, performing the same tasks but in different ways, which is the outcome of the culture and environment of their home country (Trompenaars and Hampden-Turner, 1997). Culture also influences bureaucracy, leadership, accountability, and management and is therefore associated with the business environment and business organizations (Taleghani, Salmani and Taatian, 2010; Sivasubramanian, 2016).

It is essential to study and comprehend the cultural dimensions and PESTLE analysis of the nations to understand the working style and environments of people located within an organization in a different part of the world. The last couple of decades, Finland and India have seen a remarkable economic tie. Finland is expanding its presence in India rapidly and trying to gain a large share of the domestic market, but Indian firms are also expanding their operations in Finland (Boopathi, 2014a). Our case company has a strong presence across the globe, and cultural differences themselves can lead to confrontations. Thus, it is essential to study the cultural dimensions of both the countries and to compare the differences for better understanding and steadier workflow.

As far as business and leadership are concerned, Finland and India vary to a certain extent. The Indian leadership method tends more towards coordination and training, while the Finns believe in supporting and designating leadership. Because of Finland and India's great social contrasts (Finnish culture is seen as progressively homogeneous, whereas the culture in India is seen as heterogeneous and a pluralistic society) (Lämsä, 2010).

The study of Hofstede's cultural dimensions will allow understanding the differences in cultures and working style in depth, that contrast the case company's offices in India and Finland. Whereas PESTLE is a unique way to carry out a detailed situational analysis before implementing a marketing strategy. It is interesting to study the work coordination of the Indian and Finnish offices of the case company, where culture, attitude, perception, understanding, and behavior contrast.

3.1.Hofstede Cultural Dimension

“A nation's culture resides in the hearts and the soul of its people” –

Mahatma Gandhi

A culture of any country does not develop in a day, and it gradually forms with a result of many factors since the inception of human presence. Nobody can be untouched by culture; it lies in every part of our society, in everyday life. Business and management cultures vary from nation to nation due to the integrative effect of its state. The impact of a culture of a country can easily be seen in the management and organizational conduct of any organization (Boopathi, 2014b). It is inevitable and has its presence in all aspects of society, be it social, economic, political, or business environments.

The cultural dimensions of Hofstede are based on data collected from the employees of one of the world's leading organization (88,000 respondents from 66 countries and in 20 languages) (Boopathi, 2014a). Earlier there were only four dimensions– (i) Power Distance Index (PDI), (ii) Uncertainty Avoidance Index (UAI), (iii) Individualism vs. Collectivism (IDV) and (iv) Masculinity vs. Feminity (MAS). These were later expanded by (v) Long-term vs. Short-term orientation (LTO) and (vi) Indulgence vs. Restriction (IVR). All the dimensions explain a specific continuum and based on these dimensions; all countries can be rated low to high.

Power distance index (PDI): The power distance index is defined as "the extent to which the less powerful members of organizations and institutions accept and expect power to be unequally distributed." This cultural dimension explains the inequality of power and level residing in society. A lower degree implies that there is an equal distribution of power amongst the people whereas the high degree indicates the establishment of hierarchy within the community (Hofstede, Hofstede and Minkov, 2010)

India is a nation that follows the hierarchical model and is a top-down social and corporate culture formation. For India, Hofstede's calculation is (77); however, like most prosperous European countries, Finland has a relatively low PDI value (33) (Hofstede, 2019). Hierarchy and the working environment can be quite informal, and their first name can call even higher-level employees. Of course, superiors always have the final say in decision-making, but employees are expected to be involved in the decision-making process.

In contrast, in Indian society, the subordinates depend on the boss or the senior personnel for the path following. Most power is controlled centrally by managers, and assistants follow the instructions with obedience. But if there's any project catastrophe, he's one that takes responsibility.

The hierarchy system in India replicates the caste system of Hinduism developed years ago and probably the effect of colonization too. However, Fins deals with one another as equals irrespective of their positions and status. Additionally, in Finnish systems, people associate on interconnection instead of a relationship. There is a shallow level of dependency on the superior. Moreover, it is evident that the relationship is very open between the superiors and subordinates, which makes it very easy for the assistants to approach (Paakkala, 2011).

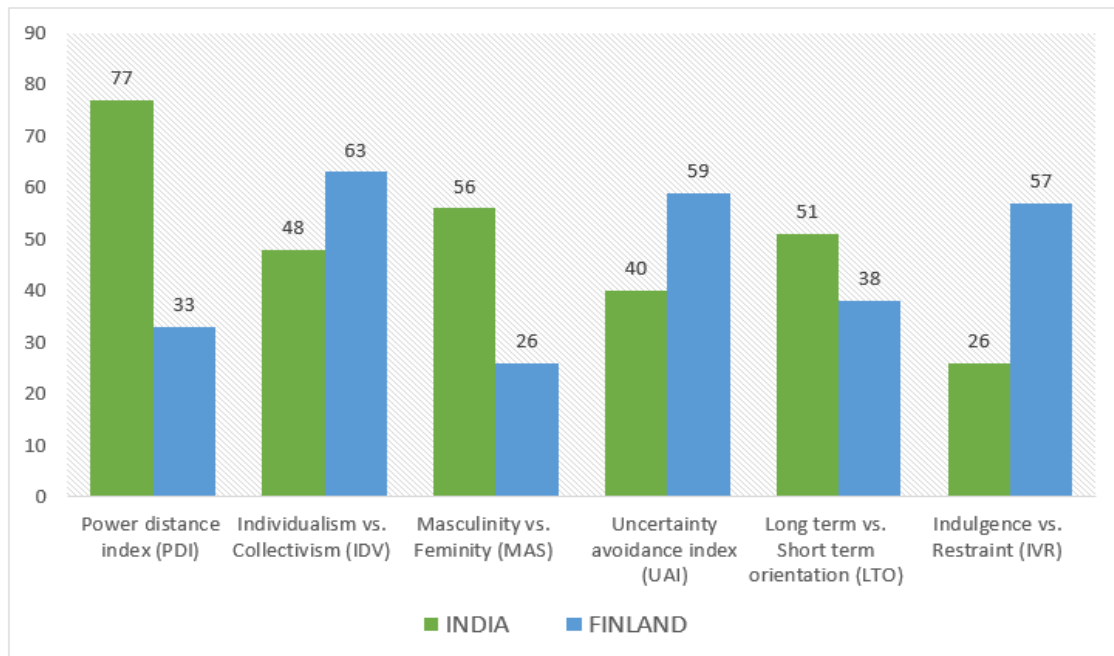


Figure 8: Hofstede's Cultural dimension for India and Finland (Hofstede, 2019).

Individualism (IDV) vs. collectivism: In a society, individualism lies where the interest of the individuals dominates the interests of the group "Individualism emphasizes individual goals, individual rights, autonomy, self-reliance, achievement orientation, and competitiveness" (Hofstede, Hofstede and Minkov, 2010). India appears to be a combination of collectivistic and individualistic features with a score of 48 and rank 33, but holistically it is regarded as a collectivistic society. The collectivist side implies that there is a tendency to have an enormous

social skeleton to which people are anticipated and to understand the characteristic of the group(s).

Similarly, these Individual Perspectives in Indian Social Order are viewed as an impact on their predominant religion/philosophy–Hinduism. For seven times, the Hindus believe in cycle death and life, illustrating the individual identity of a man. Therefore, individuals are accountable separately for the best approach they are leading them and the effect it will have on their resurrection. Finland, on individualism, however, is higher, it scores 63 and ranks 22. It focuses on personal rights and achievement and relates to societies where there are loose ties between individuals. Moreover, the task is vital for personal relationships in individual cultures.

Finland has a high value for individualism, meaning that Finn thinks of themselves as individuals and usually looks after themselves. Moreover, there is rarely any prejudice to other people in Finland. Interestingly, public humiliation in Finland is not such a big deal, but it can easily lead to a loss of face in India that is something Indians want to avoid at all. The collective culture of India is more related to the achievements of the team or group. The individualistic cultures of Finland, however, believe in individual achievements (Boopathi, 2014a).

Masculinity vs. femininity (MAS): In this dimension, success and the achievements in the society, assertiveness and the heroism depict Masculinity. Moreover, it is believed that a man should be tough and focused on worldly achievements. On the contrary, the acts of cooperation with people, shyness, helping the weak signifies Femininity. Furthermore, feminine societies see men and women at an equal level; they share equal views of modesty and care with men. It is viable to say that there is an apparent gap between female and male values in masculine societies (Boopathi, 2014a). India, in this dimension, scores 56 and therefore considered a masculine culture. In expressing triumph and power, India is extremely masculine.

Nevertheless, India is a nation with many theologies and religious beliefs. It is a country with one of the long-lasting civilizations that illustrates tolerance lessons in the estimation of peacefulness and self-control whereas Finland has a score of 26 and is ranked 68th in the world, which it reflects as a feminine culture. Fins prioritize personal relationships, quality of life, and care for others too. In a masculine culture, it is evident that people show off their wealth and great hunger for achievement, on the other hand-helping the poor and protecting the environment is the focus of the people in a feminine culture. Besides, feminine culture believes

in "small is big" and contrasts it with "big is beautiful" of the masculine culture (Sivasubramanian, 2016).

Interestingly, feminine nations focus on "work to live," people strive for harmony, unity, and value in the working environment. Clashes are attempted to be settled by compromise; moreover, leisure time and adaptability are favored, while workplaces in male cultures focus on characteristics such as leadership, boldness, performance, and success (Jones, 2007).

Uncertainty avoidance index (UAI): The uncertainty avoidance index helps to understand how much society is tolerant of any situation of ambiguity (Hofstede, 2010; 2011). In this dimension, societies who follows strict codes, principles, laws, regulations, and rely on absolute truth have a high score in this index. Whereas, a lower score index shows that diverse views or opinions are more acceptable. Society inclines to levy fewer regulations, and tolerance for ambiguity becomes more usual (Boopathi, 2014a).

Indians score 40 on this measurement and therefore, is a low side inclination for concerns about avoiding uncertainty. Acceptance of imperfection prevails, as the country has a high level of tolerance and generally encounters unexpected situations. This can lead to a problem working in collaboration with the high-level UAI country, such as Finland. Fins with a score of 59, are comparatively high with India in avoidance of uncertainty (Hofstede, 2019). Companies with a high degree of uncertainty avoidance try to mitigate unfamiliar situations by careful planning and adequate laws enforcement. However, the low UAI guidelines are generally bypassed and depend on innovative methods to "sidestep the system." (Hofstede, 2011). As a culture of high uncertainty, Finland is exceptionally structured with rules and laws are adequately respected throughout. While India, having a low UAI culture favors vagueness, which provides more flexibility. Despite the presence of strict regulations, they are not adequately adopted because people are not much familiar with legal matters (Boopathi, 2014a).

Countries with high-level uncertainty Avoidance keeps strict laws of belief and behavior. There is an emotional need for regulation in such civilizations, a citizen has an eagerness to work hard and stay busy, in addition to focusing on accuracy in their work, and timeliness is the highest standard. A lesson of adjustment has been given since childhood to cultures that are weak in UAI like India, and it can be seen in all aspects of life. In contrast, a proverb used in India "nothing is impossible" if one had an idea of how to "adjust." In this type of culture, people

are not afraid of uncertain situations because of the uncertainties inherent in their lives and are adjusted every day as it happens. Weak UAI societies are, therefore, not focused on formalizing laws and believing in perfection (Hofstede, Hofstede and Minkov, 2010).

Long-term orientation vs. short-term orientation (LTO): This dimension forms a connecting bridge between past, current, and future challenges and related actions (Hofstede,2010;2011). A lower index in this dimension (short-term) describes that rituals are respected and maintained, and social obligation fulfillment is appreciated. Whereas, high index societies (long-term) favor adaptation as per circumstances, solving the problem as a necessity (Boopathi, 2014a)

India once again has a score of 51 in this dimension and appears to be a long-term oriented nation. Society believes in Karma, which says that whatever an individual does, it will come in front of him again in future, moreover philosophical and religious thoughts are also dominated in the country. On the contrary, Finland is a short-term oriented society with a score of 38, believes insignificant events that have previously taken place. A profound sense of harmony and constant relationships in business and management are most essentials for LTO societies, whereas, for short-term-oriented communities, personal balance and firmness are required (Hofmann, 1999).

Indulgence vs. restraint (IND): This dimension in principle measures the degree of happiness. It can be explained as “a society that allows relatively free gratification of basic and natural human desires related to enjoying life and having fun.” Whereas restraint society can be referred to as “a society that controls gratification of needs and regulates it by means of strict social norms” (Boopathi, 2014a).

India scores 26 in this dimension, which illustrates it as a restraint society. Civilizations with a lower score are pessimistic and cynic but do not focus much on holiday time and regulate their desires. Restricted communities have stricter social standards, and drive gratifications are suppressed and controlled. In contrast, Finland scores 57 and is seen as a highly indulgent society. In high indulgence societies, there are no strict social norms, and individuals are freed to fulfill their basic needs and desires (Hofstede, 2019). Moreover, Finland, as an indulgence society, believes that freedom of speech is an essential aspect, whereas it is not a primary concern in a restrained community like India.

3.2. Summary of Hofstede Analysis

The scores on the dimension of Hofstede show that India scores high on power distance out of the six dimensions, followed by other dimensions such as long-term orientation, masculinity, collectivism, avoidance of uncertainty and indulgence. On the contrary, Finland scores high on individualism, followed by avoidance of uncertainty, indulgence, long-term orientation, distance from power, and masculinity.

We have analyzed a significant difference in the cultural norms between Finland and India by analyzing and comparing the cultural dimensions of Hofstede. However, only Hofstede's dimension may not be the perfect indicator for providing accurate information on both cultures. However, these measurements will provide fundamental knowledge of the national cultures of both countries. Also, the analysis of cultural dimensions is an effort to understand Finnish and Indian culture at the general level. These comparing results give a holistic picture of culture for both the countries. It will also help in getting an idea of how to manage the people at offshoring place for a better and steadier workflow. Moreover, it is viable to understand the other aspects before planning the business for offshoring. In the next section, we will analyze the PESTLE analysis to get a better understanding the for political, Social, legal, and other factors.

3.3. PESTLE analysis

We tried to analyze the cultural dimension of Hofstede in the last chapter to understand the psychological aspect of society. In this chapter, we will try to explain the PESTLE elements of the nations that will provide a holistic idea to help develop a company strategy. PESTLE is an acronym that refers to the political, economic, social, technological, legal, and environmental factors of a company or country. It empowers to analyze a broader view from different angles, that one wants to track while contemplating a specific idea or plan. It is a unique way to carry out a detailed situational analysis before implementing a marketing strategy. PESTLE is an excellent tool that can help an organization to structure such an investigation. It is advised that this analysis need to be repeated at regular stages, the reason being the frequent change in the macro environment. We will now study the Acronym of PESTLE one by one:

I. Political Factors

Political factors determine the level through which a government can directly impact the economy or other sectors. The revenue generating the structure of an organization can be profoundly affected because of changes in imposed taxes by any government. Political factors

concisely include taxation policies, trade tariffs, etc., which the government may levy for the financial year and which could have a substantial effect on the business environment. India (officially known as the Republic of India) has a federal form of government, and it is the seventh largest country by region and the biggest democracy in the world. It is also the second most populated nation around the globe with over 1.3 billion inhabitants, which is seen simultaneously as a strength and a great challenge. It neighbors many countries but, close to two powerful countries i.e., China and Pakistan, and their internal political environment dramatically affects the business environment. Other factors which affect the Business environment are government policies, political interests, and philosophies of major political parties. The political culture of tolerance makes an extraordinary contribution to maintain a firm political condition that causes a factor in attracting foreign direct investment (FDI). Despite its fall in the rankings, India's corruption score has improved steadily in recent years. The CPI awarded India a score of 40, which makes India on Rank 81 in global corruption (*India Continues To Rank Among Most Corrupt Countries In The World*, 2019).

On the other hand, Finland is a parliamentary republic government with a multi-political party system-based country. The president of Finland can hold a term of six years with a maximum of two consecutive terms. Women in Finland are treated well representing 38 percent of the 200 parliamentarians in 2003. Finland is one of the countries which has very little or no corruption. In 2017 transparency international reported that Finland is the world's third most transparent country after by Denmark and New Zealand. Rigid government laws, as well as strict implementation, have liberated the country from corruption.

II. Economic Factors

Economic factors determine the economic activity of any country, which affects a organization directly and has long-term impact. For example, an increase in any economy's inflation rate would affect the rates of the products and services of the company. In addition, it would impact the buying ability of a consumer directly and alter the demand / supply model of the economy. Economic factors include inflation level, interest rates, overseas exchange rates, trends of financial development, etc.

India's economy has been significantly stable since the emergence of industrial reform policies in 1991. The policy has shown lowered industrial licenses, foreign investment liberalization, etc. which caused continuous upgradation of India's economic environment. Moreover, India's

GDP amounts to 2 597 billion dollars and is the world's 7th biggest nominal GDP industry. India is one of the world's leaders for many sectors, being for instance the 7th biggest manufacturer of coffee in the world (International Coffee Organization, 2017). It is also one of the biggest agricultural producing countries in the world. India's major exports are oil products, jewelry, pharmaceutical products, transportation equipment, and ready-made apparels. (Guardian News Limited, 2016).

A major alarming factor in India is corruption, that is creating a break for the nation's economic growth. Corruption surges the cost of business procedures, lowers the company income, and correspondingly impacts foreign direct investment. However, since the last decade, there has been a high awareness is seen in public and government initiatives are seriously fighting with its challenge. The tax structure in India is well established, and the union's govt imposes multiple penalties such as income tax, goods services tax and sales tax. Privatization is also affected, and the state promotes free entrepreneurship through many programs.

Finland had a GDP \$252 billion in 2017 and considered a highly industrialized country with exporting goods and services contributing over 40% of GDP. The country has a wealth of natural resources such as silver, gold, copper, iron, lead, zinc, chromium, and timber. Service and manufacturing are the most significant sectors in the country's economic and make about 67% and 30% of Finland's total economy. Countries with high social security standards like Finland usually also have high tax levels. All income like goods and services is taxed; moreover, the municipalities the Lutheran and the Orthodox churches also collect taxes. Direct taxes are state income tax, whereas wealth tax, inheritance and gift taxes, and asset tax are payable to the appropriate municipality.

III. Social Factors

Social factors examine the social environment of the country and measure factors such as societal trends, demographics, population statistical analysis, etc. The social factors refer to any change in the trend that influences a business environment. In India, for example, an increase in the aging population results in a significant increase in pension budgets and a rise in the employment of older workforces. India, a vast consumer market of over 1,3 billion people and approximately 70% between 15 and 65 years of age. There are, therefore, structures with percentages according to age.

About 400 million people in India are below the poverty line. Moreover, a lack of sanitation, clean water, and health care lead to the death of a considerable number of people. “The World Bank estimates that 21 percent of infectious diseases in India are linked to unsafe water and the lack of hygiene practices. Further, more than 500 children under the age of five die each day from diarrhea in India alone.” (*Water In India - India’s Water Crisis & Sanitation Issues In 2019 | Water.org*, 2019)

For multinationals, such a vast market is a great prospect, that’s why numerous multinationals are functioning in India. India is a hub of low-cost labor that encourages MNCs to externalize their business in India. The labor force is likely to reach between 160 and 170 million by 2020 (IBEF, 2018). The country is known for its film industry, hockey, and cricket, and other sport. A massive investment in the sports league has made the country a big investment hub. Indian premier league is one the best example of it. Living standards are rising, and the nation has an increasing middle class with decent earnings. Nevertheless, India still suffers from poverty, and as per to the World Bank, one in five individuals in India is still weak.

Finland, with a population of over 5.32 million, in which 2.7million of them are a workforce. Finland education system is unique with a literacy rate of almost 100%, which ranks it number 1 on a global scale. Children can start their School with the age of 7 years. There is no tuition fee for full-time students; moreover, free meals are provided to the students studying in primary and secondary schools. Furthermore, Finland is also ranked 1 in the world's happiness index, which means people living in Finland are happiest on the planet. Finns firmly believes education is the key to a healthy lifestyle for the future, and it is imperative for the citizens to get educated about the environment. A lot of projects and studies are going on in the universities and other education centers for sustainability and the environment.

IV. Technological Factors

Technology impacts the improvement of products and familiarizes new cost-cutting processes. Its advancement creates a new opening for business organizations and correspondingly job opportunities. India is one of the world's most technologically advanced countries. India, having advanced IT infrastructure and highly skilled IT workforce, offers opportunities to organizations to set up projects such as, e-commerce, software development and other IT solutions, business solutions, etc. Since 1991, India's software exports have consistently grown over 50% annually, this attracted more technology giants, including Facebook, Microsoft, and Apple ever, to invest

in the country. The Indian Space Research Organization (ISRO) set a world record with a one-mission launch of 104 satellites on February 15, 2017. It also successfully carried on the ambitious lunar mission (Chandrayaan-I) and an impressive Interplanetary Mission of the Mars Orbiter (Mangalyaan), in its first and most economical effort. (*Exploring orbits and beyond: ISRO - Make In India*, 2019).

In the field of sustainability, Finland has become renowned for innovations; moreover, Finnish Technology, and Innovation Funding Agencies are growing, highlighting the need for greater sustainability. Finland is continuously strengthening sustainability and IT research areas, including university and business, with its international ties. Finland drawn significant investments in data centers from organizations such as Google, Telecity Group and Yandex. The lower electricity tax rate has further boosted Finland's competitiveness as a cost-effective data center location (*Invest in Finland - Business Finland*, 2019). The nation has already achieved significant advancement in the development of energy-efficient systems and innovative technologies and is dedicated to the constant improvement in these fields. (*PEST(EL) Analysis of Finland and China*, 2019).

V. Legal Factors

When a business is established in a country or region, after covering all costs, it is imperative to know whether it is protected against copyrights and other fraud. Legal changes can alter a company's costs and demand. Legislative changes from time to time, concerning the business environment. If a legislative body were to establish industry laws, that legislation would have an effect on all sectors and in that industry. It is advisable that corporations also evaluate the legal trends in their working environment. Patents trademarks and other trading sectors should also be restricted and implemented, as a company can only function in a healthy environment.

India is a famous foreign direct investment destination. Depending on scope and business necessitates, overseas shareholders in India can establish a company or limited liability partnership. In India, companies need to receive approval from many kinds of state or central govt to start up their company. Indian labor laws regulate employment relations, such as Industrial Disputes Act 1947 (ID Act), Employees ' State Insurance Act 1948 (ESI Act), and Bonus Payment Act 1965 (PBA) (*How And What*, 2019).

On the other hand, being a welfare state and residence municipality, Finland's legislation guarantees a worthy life for all and provides equal possibilities for a safe and healthy life.

People are also well informed of their freedoms and responsibilities. In increasingly global and incorporated economies, social stabilization, justice performance, excellent management, and adequate legal protections are essential competitive factors.

VI. Environmental Factor

Environmental factors include all possible factors affecting or determining the environment. This PESTLE aspect is essential for specific sectors such as tourism, agriculture, manufacturing, etc. Environmental analytical factors for the industry may not be restricted to climate, weather, geographic location, etc. but may also study a much wider area of the business environment.

Although India has made significant advancement over the years, the country still faces several pollutions like air and water. Moreover, it is also struggling with environmental challenges such as floods, consumer waste depletion of resources, like water and forest, and biodiversity issues. Industrialization and urbanization have adversely affected air quality in India, also causing health problems. The government has put heavy penalties for non-compliance with environmental laws and irresponsible behavior.

Many sectors, including production, agriculture, tourism and insurance, can be affected by climate change. With major climate shift owing to worldwide warming and enhanced consciousness of the environment, this external aspect is becoming a major problem for businesses. Finland is a developed country concerned with protecting nature by developing high-level technology and skills to prevent pollution. The government has set out several protection policies to run the program and make it more effective. Also, Finland is also concerned about lakes and rivers by introducing numerous policies to prevent such as cleaning up lakes, improving air quality around industrial areas, etc. (*PEST(EL) Analysis of Finland and China*). The government has announced to reduce the dependency on fossil fuels; moreover, they are banning the coal for the power generation by 2030 (*Finland makes a move towards a sustainable future*, 2019).

3.4. Summary of PESTLE Analysis

The motive of this PESTEL study is to figure out some of the most notable variables that are crucial for captive offshoring. The assessment was conducted in the view of the businesses that focus on outsourcing operation between India and Finland. The results show that both the countries are advance in technology, and economies of both the countries are also profound.

There are certain variables in which the two nations contrast each other, which are social, legal and environmental factors. Table 2 illustrates the major points of various variables for both the countries.

Table 2- Summary of PESTLE analysis

PESTLE Factors	India	Finland
Political	<ul style="list-style-type: none"> • The federal form of government • the population is a strength and a challenge • Corruption 	<ul style="list-style-type: none"> • Parliamentary republic government • World's third most transparent country
Economic	<ul style="list-style-type: none"> • GDP is worth \$2597 billion. • Exports Medical products, transportation machine parts, readymade clothing. • Corruption is a challenge for the country's economic growth • Well Developed tax system. 	<ul style="list-style-type: none"> • A heavily industrialized nation with a \$ 252 billion GDP in 2017. • Economy dynamism at rank number 8 in the world. • Service, the country's largest economic sector, makes up more than 67% of the total. • High taxes.
Social	<ul style="list-style-type: none"> • Large consumer market. • One of the most attractive markets for investors. • Low labor cost. • Poverty still exists at some level. 	<ul style="list-style-type: none"> • A population of 5.32 million. • Among the highest in the world's education index. • High labor cost. • Life quality is rated number 4 globally.

Technological	<ul style="list-style-type: none"> • One of the most influential IT players. • Software exports growing consistently over 50% since 1991. • Set a world record with a launch of 104 satellites on a single mission. • The first nation in its first and most economical effort to reach Mars. 	<ul style="list-style-type: none"> • Known for innovation. • Focus on the need for higher sustainability and unnecessary waste decrease. • Strategic Center of Science, Technology, and Innovation • Advanced research and development for the energy and environmental sectors.
Legal	<ul style="list-style-type: none"> • Attractive FDI opportunities • Companies need many state or central government permissions. • Indian labor laws regulate employment relations. • Strict laws for corruption, but it still exists. 	<ul style="list-style-type: none"> • Laws ensure a valuable life to everyone and provide equal chances • Societal stability, judicial quality and virtuous governance
Environmental	<ul style="list-style-type: none"> • The country faces pollutions issues. • Challenges of floods, consumer waste, depletion of water, forest, and biodiversity resources. • Heavy penalties for non-compliance with environmental laws and irresponsible behavior. • Climate changes can affect many industries, including manufacturing, farming, tourism, and insurance. 	<ul style="list-style-type: none"> • Protecting nature by developing high-level technology and skills. • Policies to prevent such as cleaning up lakes, improving air quality around industrial areas. • Banning coal for the power generation by 2030.

4. Research Design and methodology

4.1. Research design

“The function of a research design is to ensure that the evidence obtained enables us to answer the initial question as unambiguously as possible”. (De Vaus, 2001, pp. 8-9). The empirical part of this thesis aims to analyze the collaboration between Finland and the Indian offices of the case company. The pyramid in figure 9 shows the process of the research and how it is planned to be accomplished. The study purposes and methods used for this research consist of:

- Literature review- Since the case is all about offshoring and outsourcing, it is apparent to go through the literature about the type of work the case company is performing. The literature review was deeply studied along with the risk associated with the offshoring.

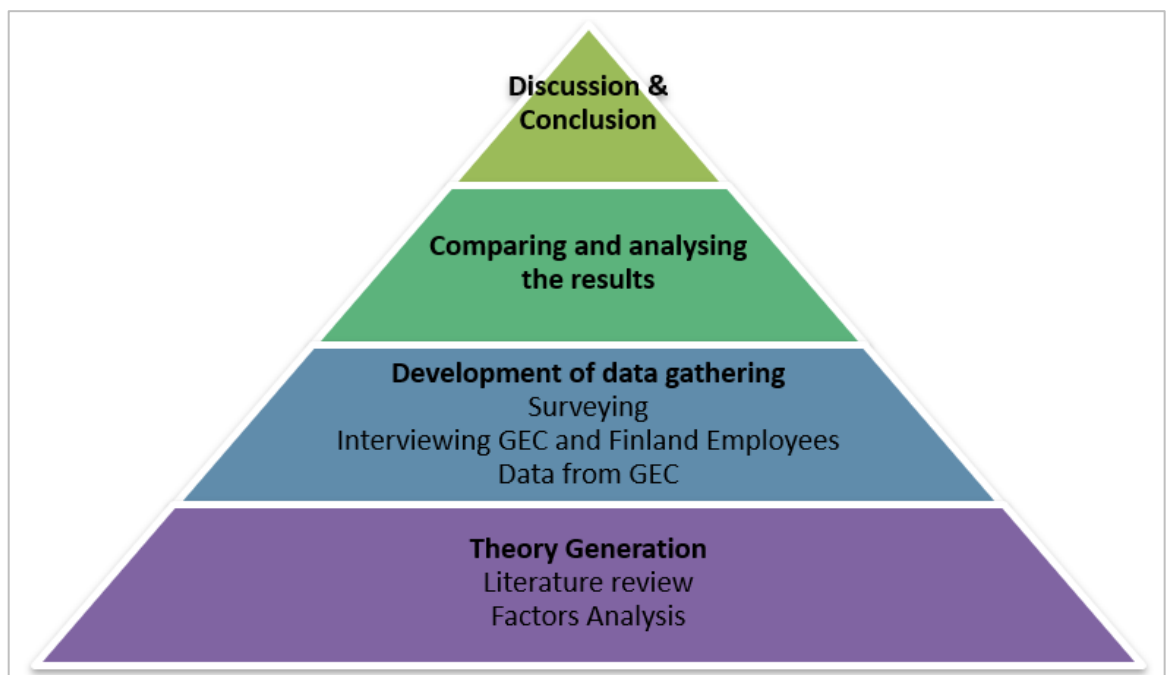


Figure 9 - Research design

- The study of the factors affecting for offshoring is one of the essential parts of this thesis. The process of business offshoring deals between two different nations or shores, and there lies a difference in the culture, political, Technological, and legal factors. PESTLE and Hofstede dimensions are already been discussed in the earlier chapters, moreover these will also keep in mind during the data analysis in next chapter.

- The next process is to develop the questionnaires interviews for the employees working in GEC and managers in Finland office. Moreover, Survey questionnaires are also prepared for Finland employees. It has been discussed in much details in the upcoming section.
- The next step in the process is to analyze the data gathered from Interviews, GEC, and the survey. And corresponding results will be discussed briefly in chapter 6.
- Finally, the Conclusions and managerial implications will be discussed, keeping the probable causes an issue of the intermittency in the work collaboration.

4.2. Research method

The research strategy used in this thesis is a combination of qualitative and quantitative studies which followed important tactic to gather related information. The approach of the qualitative method is to emphasize on the viewpoint and experience of an individual dealing with the team (or person). The objective is not to philosophize, but to comprehend and construe the senses and meanings that cause daily social engagements. (De Vaus, 2001). Qualitative design principally deals through verbal information and instigates sense from the viewpoint of the contributor. It also focusses on acknowledging and environment which exclusive deals in routine life. It is viable to apply the qualitative approach for this research as the collected data is emphasized on the contributors' independent understandings and how they construe it.

However, the ultimate intention of the quantitative design is to find an exact and reliable measure that confirms statistical study practically. In quantitative research, method questions are straight, measurable, and very easy at answering and frequently comprise axioms, for example: how many? What amount? To what degree? What share? Etc. Conclusions derived from quantitative research reveals actions and trends.

Nevertheless, it is imperative to mark that they do not explain why individuals think, feel, or behave in such ways. It means quantitative research emphasizes on data sets or study collections, not on the motive behind detected activities. To mitigate the information gaps, qualitative studies are useful; for example, interviews, or open-ended survey question, etc. (Goertzen, 2017).

In addition to above-explained conventional analysis, there also exists a mixed method combining the two to improve understanding of the problem. The combined approach is

applied to mitigate the vulnerabilities of both the technique and maximizing their advantages at the same time. A mixed method of research provides a solution for the study of complex subjects that are often not easily managed to measurable form, but which require mathematical analysis. The validity of quantitative research decreases because of the availability of small samples; however, when it is backed up by quantitative data, it holds up firmly. (McLaughlin et al. 2016).

In this research, both quantitative and qualitative approaches were combined in a mixed method. This method allows to attain the views of the employees of Finland offices as well as the GEC employees. Since the number of MEP employees in Finland office is high (450+) so we did a survey. However, the Finnish Team in GEC is small (<20) so they had easily been interviewed in November 2018. Moreover, data of Billing ratios and the delivered hours for three years of GEC members of different teams (Finland, Denmark, Sweden, Norway, and the UK) were collected.

4.3.Data collection

The researcher is the one who must analyze the case in his mind and plan how to solve the issues. Moreover, he also must decide what data collection techniques are to adopt and its analysis procedure. If the single data collection technique is used, then it will be called a mono-method, and if more than one data collection techniques are used, it will be termed as multiple methods. (Saunders, et al., 2009).

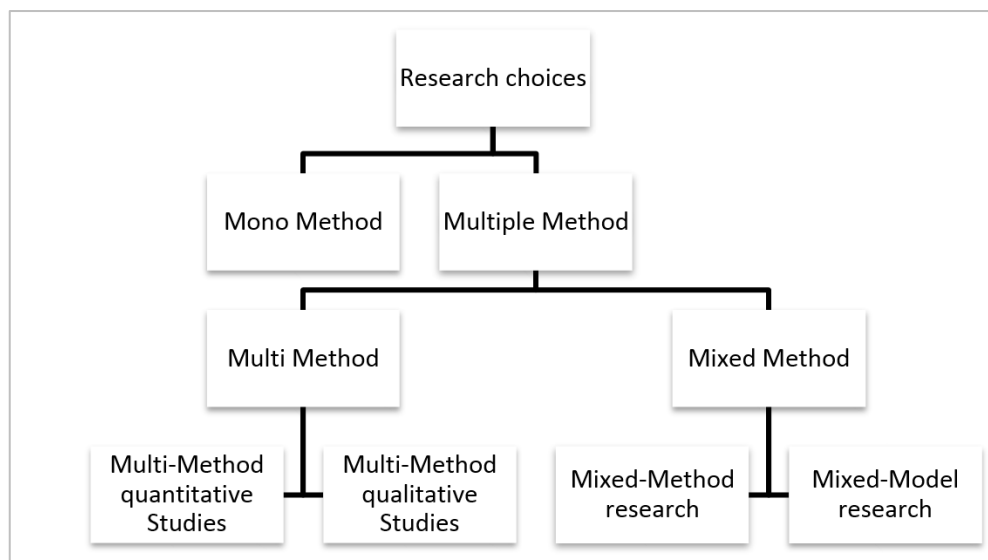


Figure 10 - Research choices (source: saunders, et al., 2009, p. 152)

Above figure facilitates several techniques available for research; it sometimes confuses the researcher in choosing the appropriate one. The best way to select is according to the questions of the study; for our study, we have several questions viz,

RQ1. What is the current state of workflow performance and collaboration between Indian (GEC) and Finland (PBU) offices?

RQ2. What are the possible problems/ issues to attain successful collaboration?

RQ3. What can be done/ suggested to make the process steadier/better?

To derive the answers, we opted the mixed methods research approach. First of all, it was essential to collect the data from the GEC for their three years of performance. Secondly, to contact the managers in Finland Office and employees in GEC and interview them. Thirdly, a survey was conducted amongst the PBU employees to assess their view.

4.3.1. Collection of Quantitative data

The quantitative part of the research focuses is divided into two sections:

- I. Data collected from GEC office for the last three years, including total, delivered hours and Billing ratios and the Global Engineering Satisfaction Forms for Electrical and Mechanical team separately.
- II. A survey conducted on the employees of Finland offices, to assess their experience working in this collaboration.

The collection of data from GEC was a challenging task as it deals with lots of risks of a data leak. The author had to convince the manager and HOD in Finland to allow for the same. With the help of the manager's request, GEC provided the data on 18th Jan 2019 for previous years and 22nd of May 2019 for last quarter. GEC provided the offshored hours and billing ratio along with team strength separately for electrical and mechanical teams. Moreover, the Global Engineering Satisfaction Forms were also handled over for a deeper assessment.

Since the number of MEP employees in Finland office is high, so surveying was the apparent choice. The survey was developed via Microsoft and link was provided to 452 employees of the electrical and mechanical team for Finland office over the professional email IDs on 4th of February 2017. Responders had 16 days to fill and submit the survey form, 20th of February 2019 was the last date to complete it. One

reminder email was also sent on the 11th of February, so that people may not forget to do. The initial goal was to fetch 100 respondents in total; however, total final 94 responses were collected before the survey link expired. The actual survey was kept concise so that employees would be interested and attentive. There were only nine direct questions, and one optional section was provided so that employees can make a comment or suggestion (if any). The final survey is presented in Appendix I., and data statistics are presented more closely in chapter 5.

4.3.2. Collection of Qualitative data

A qualitative semi-structured interview was conducted to regulate the set of questions, thus comparing the results to the quantitative survey and reflecting them. Semi-structured interviews have many advantages. They allow more control over the method and thus helps to focus on the discussion. The semi-structured and unstructured interview is appropriate and safe under the exploratory research. A semi-structured interview with a list of themes and questions to be addressed is performed, where the order of questions would be diverse and additional questions improvised to draw deep insights from the respondents. The unstructured interview (profound interview) on the other side enables non-directive exploration of interviewees without a pre-defined issue (Saunders et al., 2009).

The qualitative part of the research focused mainly on the employees of GEC team. Since the number of workforces was less than 20 people, it was more logical to interview everyone rather than surveying. All the interviews conducted with GEC were done face to face in November 2019. The interviews were followed in the hierarchical format. First, the Director of the GEC was interviewed to know the broader view of the GEC and the future aspects and plans. Subsequently, the HOD of the MEP team was interviewed to make the thing narrower. HOD is looking after a team of around 100 people and have a better idea about the team contrasts and relevancies. Working on the same pattern, the next interview was of the Team leader to know the present and past work level and the team progress in technical and cultural terms. After that, the engineers and CAD technician were interview one by one, to know their side of stories. Actual engineers and CAD technicians are the people who are directly working with the PBU employees. It was viable to interview them to know their issues and ideas for better collaboration and steadier work for the future.

The interviews of the Finland managers were conducted over the Lync platform and were recorded after taking their permissions. The main motive to take managers interview was to know the profound aspects of the collaborations. It was essential to know that what managers think about the workflow, the progress in three years, how they want the team to work, what is still needed to be done, future focusses and so forth. The semi-structured interview questions are shown in Appendix II.

After the interviews were done, transcribed and documented the statistics assessment process commenced. The relevant issues raised during the interviews were combined in the tabular form for further assessment. The quantitative research section (survey) is kept anonymous, to protect the respondent from any future issues and to get honest answer required to meet the thesis goal. Moreover, the identities of the interviewees were also drawn out to maintain the research anonymously.

5. Result Analysis

5.1. Analysis of workflow performance and collaboration between Research

This section delivers the main findings and the outcomes from the conducted interviews and the data for past years in a structured way. Let us focus on the research question 1.

RQ1. What is the current state of workflow performance and collaboration between Indian (GEC) and Finland (PBU) offices?

It was essential to explore the appropriate information in detail to assess the RQ1. Since the development of the team and other changes had already taken some time, the author had analyzed the data from the beginning of 2016 until the first quarter of 2019.

5.1.1. Offshored delivered hours

Offshore delivery hours are the number of hours for which the project or work shared by the PBU to the GEC team. It describes how much the load was transferred from the PBU or how much the GEC assisted the PBU. Also, the data collected from the GEC was bifurcated into electrical and mechanical in a quarterly format. Figure 11 demonstrates the comparison of electrical and mechanical teams offshored delivered hours. From the chart, it is evident that the workflow during the tenure has not been constant; many ups and downs are seen throughout the period.

In the quarter 1–2 of 2016 both teams seem to be increasing, yet the mechanical team has been raised quicker than electrical. But abruptly the Q3-2016 chart falls sharply. The mechanical team showed a very steep growth from Q1-Q3 2017, but again the electrical seems to maintain somehow. Although there are fluctuations throughout the tenure, still the mechanical team have managed to meet 2500+ hours and 2200+ by the electrical unit in the second quarter of 2018. A very promising rise in the workload has been seen between the Q4 of 2018 to the end of Q1 of 2019. But big spikes can be seen in every Q1 since 2016 and it is essential to understand why it gets down nearly after Q2. Summer vacation might be one of

the reasons. As it is realized every year, it would be better if managers plan the projects accordingly.

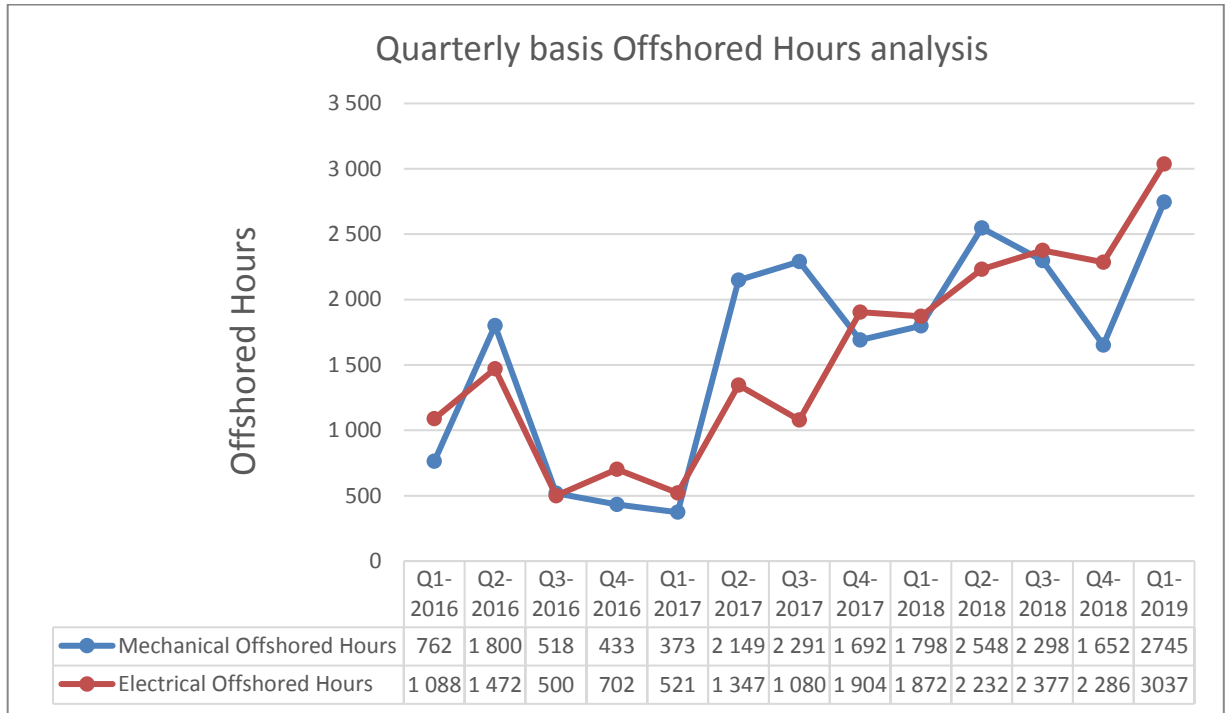


Figure 11- Quarterly based Offshored delivered hours

From the above graph, there are some critical points to be noted:

- i. The offshore workload appears to increase every year from Q1 to Q2. The next or alternate quarters seem to have a little amount of work and manage the average for the rest of the year in some manner.
- ii. Indeed, it is evident that the mechanical team has much more progressed than the other one, but at the same point of time, there is also high fluctuations in the mechanical team compared to the electrical unit.
- iii. The electrical workload should not be considered a breakthrough for the combined team as it demonstrates a lesser delivery of hours, moreover, the load fluctuation is also very evident. But it is worth saying that it is going up persistently with lower transitions after Q3-2016.

*More detailed analysis (month by month) is presented in Appendix-III.

5.1.2. Billing Ratio and Headcount

Billing ratio can be defined as the ratio of workforce utilization by total availability and can also be linked to the team's effectiveness. In other words, it can be described as the proportion of the hours for which employees have been utilized or provided tasks. Making staff stay idle can hamper not only the company's budget but also the workforce's motive. Staff certainly needs enough time to relax during working hours, such as coffee breaks, and so on. But to maintain the workforce's enthusiasm and motivation, it is essential that they always be aware of objectives. Low usage can lead to a decrement in motivation and demotivation within the team, which can tend to team attrition.

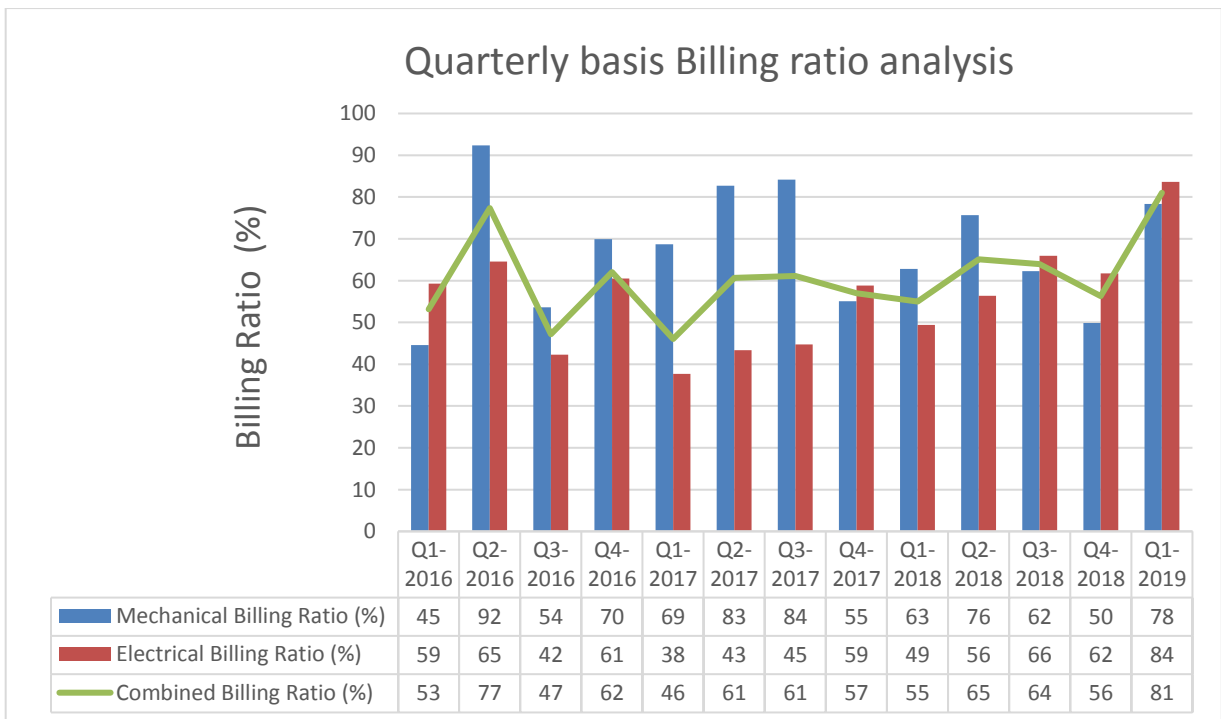


Figure 12- Quarterly based Billing Ratio

Analyzing the Figure 12, we notice that the total team billing ratio at the beginning of 2016 was 53%, i.e., nearly half of the time team was sitting idle. However, we see massive growth in team utilization in the next quarter (Q2), especially in mechanical, whereas the electrical team also showed some signs of growing. But both sides are seeing to have a steep downfall again in the Q3, which is combinedly 47% of the team utilization. In Q4 2016, still, there had been a slight increase; however, due to the squeezing of the team's size (see Figure 13). This implies that the offshore workload has not been improved, but the team size has become smaller. The

similar fluctuation is realized every quarter for the next years too. Where the electrical billing ratio varies between nearly 40% to 60. Whereas the same for the mechanical team is much higher and varies between 50-90% after Q2 2016.

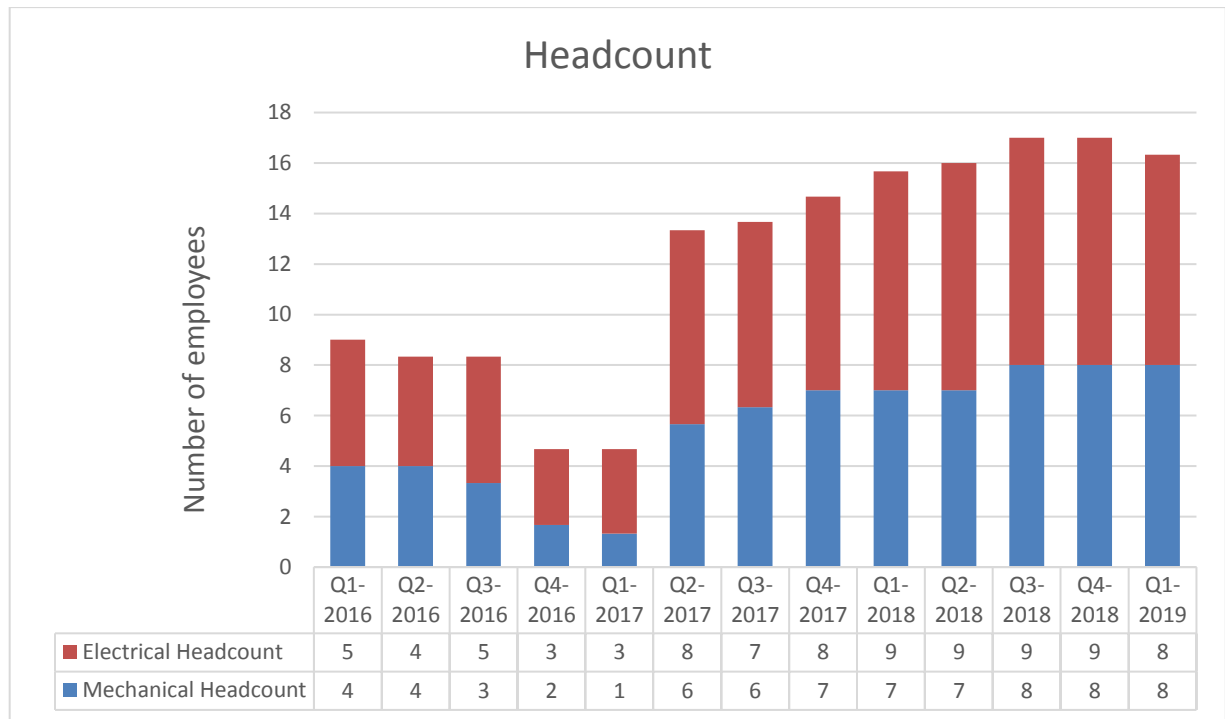


Figure 13- Quarterly based Headcount

In Q1-Q2, 2017, team size development was spectacular, with the overall size increasing from 4 to 14 employees. Trust in the PBU was established, and the right amount of workload was offshored, particularly in the mechanical unit. There was, however, a minimal rise in the electrical part. These outcomes in the GEC team's average billing ratio of 61 %. More effort has been needed to develop and deterministic collaboration. The electrical team tends to retain its billing ratio between 50-60 % after the third quarter of 2017 by the end of 2018. The mechanical unit, however, appears to ramp up the amount of workload and billing ratio, reaching up to more than 80%.

Once again, Q4 2017 has seen a decrease, reaching up to 54% in the mechanical workload. Since then, it appears to have small ups and downs and assist the total GEC ratio within the 50-60% range. The first quarter of 2019 again shows a very huge rise in billing ratio for both teams. However, this time it seems to be a positive sign because the difference in both teams is very small which combinedly makes the total billing ration of 81%.

5.1.3. Work Satisfaction feedbacks.

One of the PBU-GEC's essential tools is the Global Engineering Satisfaction Forms. This is a small feedback form that must be carried out by project engineers from both parties (PBU and GEC) after the accomplishment of the projects. It includes a series of assessment questions based on which the two groups must evaluate the other on a scale of 0-5. Where 0 is very bad, and five is excellent. Also, there are also two open qualitative questions for managers of both sides to make the comments and recommendations. As two separate teams are operating in this collaboration (electrical and mechanical), so it is necessary to access both teams separately. It is evident that both divisions have very distinct challenges and work types, and it is viable to evaluate them independently.

Electrical Team

Figure 14 is developed after a compilation of 16 numbers of such types of satisfaction forms for the electrical group from GEC. The GEC management has clearly instructed the team to maintain the yearly average of 4.2 as their goal. Certain variables appear to be promising from GEC but at the same time in many dimensions the average drops below 4. For instance, delivering the project in guaranteed hours, improving the quality of the deliverables, enhancing the skills are some of the points they need to focus on.

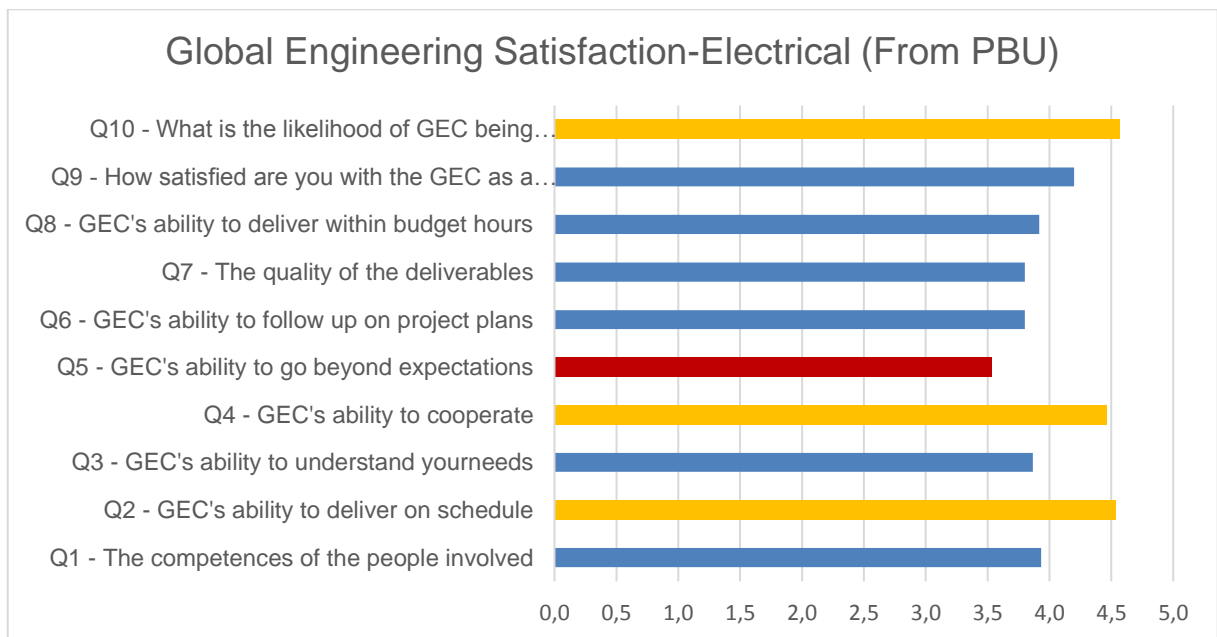


Figure 14 - Global Engineering Satisfaction from PBU (Electrical Department)

It seems that PBU is not pleased with the quality of the deliverables; it is also very evident from some of the feedback.

“Sometimes it feels like GEC team doesn’t know exactly what they are drawing. So technical backgrounds should always be understood. For example, after drawing something, one should check if it is working technically”, a respondent stated in one of the satisfaction forms.

In Figure 14, the yellow bar indicates a favorable indication that the PBU is impressed with GEC. The cooperation of GEC is one of the aspects where PBU appears to be satisfied, together with the on-time service of GEC keeping the PBU motivated. **“Fast learners. Easy to cooperate with”**, says a manager in a comment section of feedback.

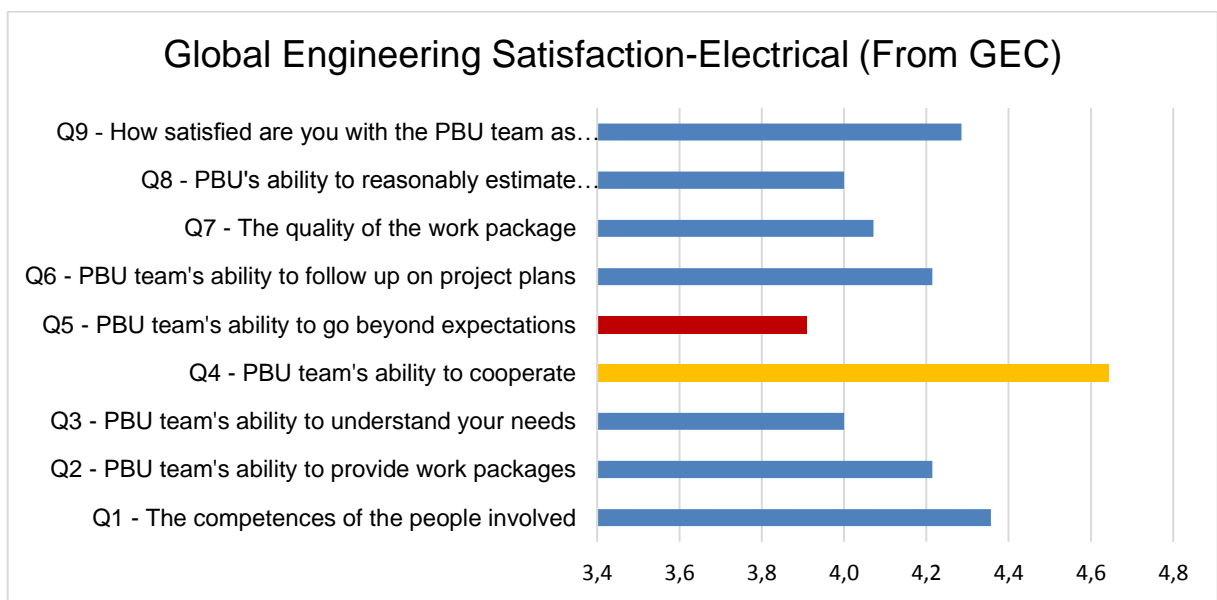


Figure 15 - Global Engineering Satisfaction from GEC (Electrical Department)

One of the critical problems that GEC staff have discussed is the quality of work packages. GEC holds the belief that the job package offered to them is drafting job, whereas the technical design portion is very small. They argue that PBU should build trust in them and provide technical work together with CAD drafting. In the graph below, the same can be evaluated from Q3 and Q8.

Comparing the outcomes of Figure 14 and Figure 15, we see that both teams assimilate two factors. First, the yellow bar indicates that GEC also believes that during the projects, PBU

cooperates in the task. Secondly, the GEC raises issues about the need for the PBU to think about estimating the budgeting hours during tasks.

Mechanical Team

'Data expresses louder than words' after analyzing the Figure 16 and Figure 17, and it is evident that the feedbacks from PBU and GEC for mechanical teams complementing each other. None of the graphs' elements are lower than the average of 4. Figure 16 Show PBU's mechanical team responses. The strong communication between the group is reflected, especially the cooperation between them is quite high, and PBU intends to work closely with the GEC team. However, they believe that to prevent discrepancies and changes, GEC requires to look carefully at their deliverables. In many reviews on performance problems, a comparable recommendation by PBU can be seen in the below comment.

“As I have said many times, quality is something that has to be the main focus.” and “Balancing is done well but needs to analyze more balancing results and check more parameters after checking consistent total pressure, velocities, etc. To make sure flowrates are the same in supply and return pipes, no open ends or not connected radiators.”

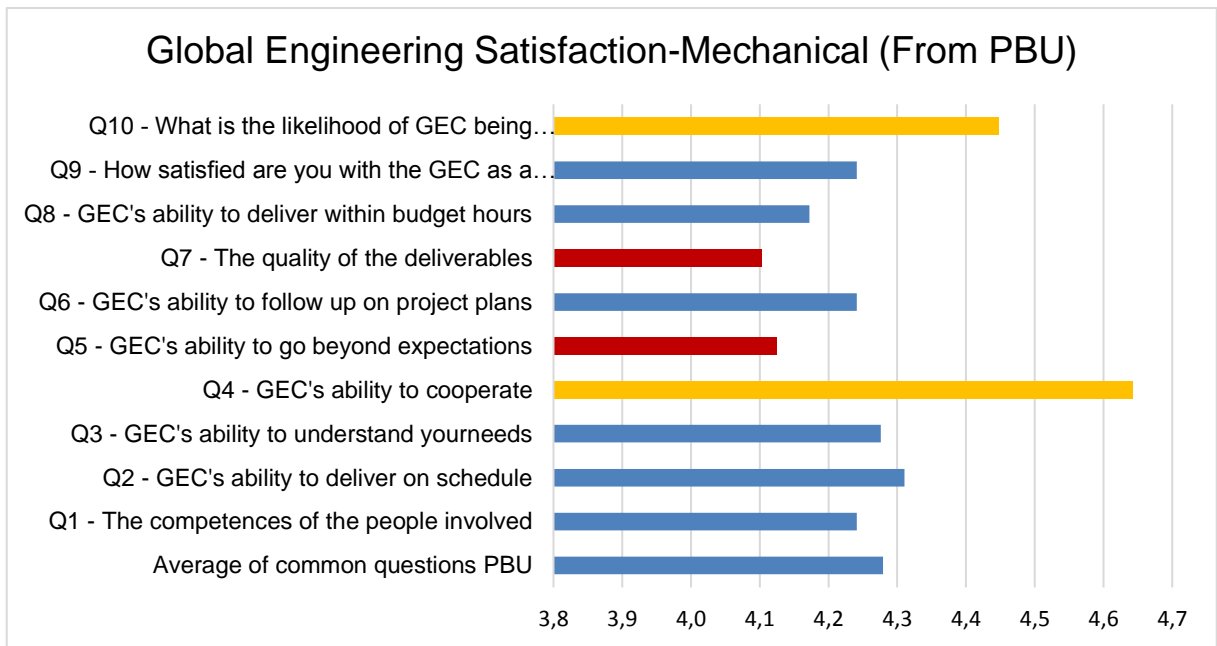


Figure 16 - Global Engineering Satisfaction from PBU (Mechanical Department)

PBU wants the GEC to concentrate appropriately on drawing, and cross-check before providing the deliveries. Besides, the PBU says it is delighted with the work of the partners. However, GEC's mechanical unit also believes, much like the electrical unit that PBU should organize the work package much better to make the work efficient and fewer amendments One of GEC's comments states:

“They can try to provide all the basic details in one package at the time of sending the project.”

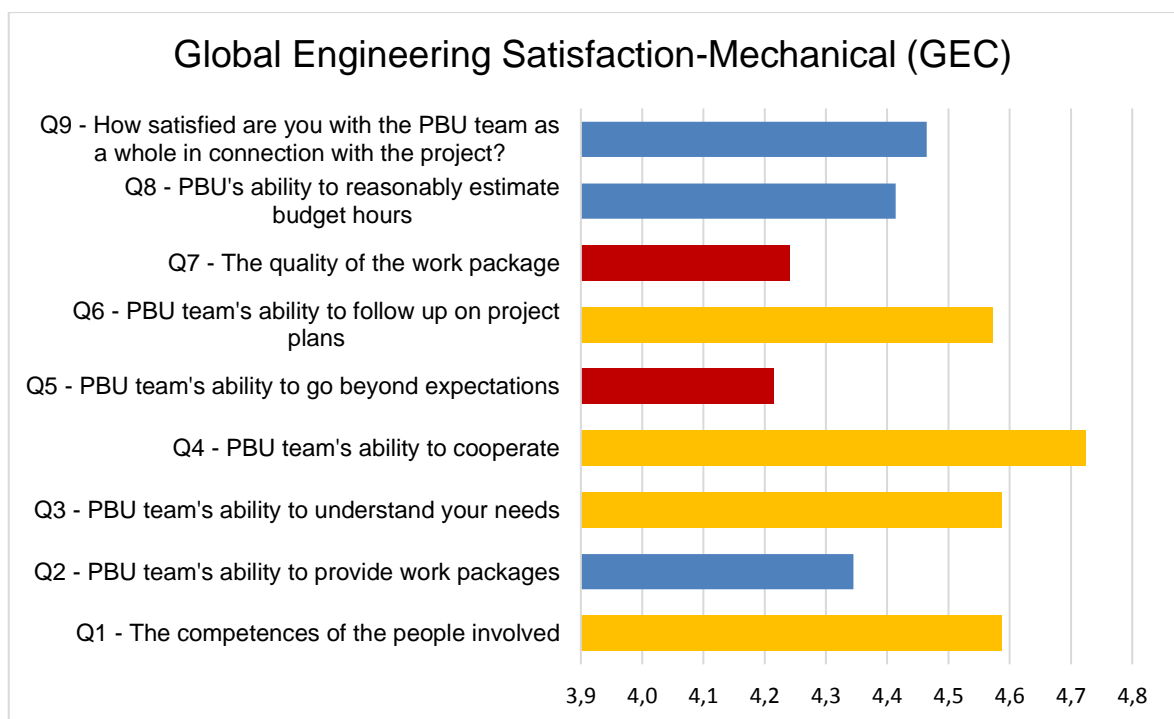


Figure 17 - Global Engineering Satisfaction from GEC (Mechanical Department)

The comment and suggestion segment on the input form shows promising cooperation, and the GEC has repeatedly stated that the collaboration of PBU was exciting and quick answers facilitated in the swift and appropriate operation.

5.1.4. Results from the survey

The survey was developed for PBU and provided to 452 employees of electrical and mechanical teams. Total of 94 responses was collected for which the data is analyzed to understand the existing relationship. Some information obtained from the survey is summarized in this chapter. Some intriguing facts come to light after the survey statistics have

been analyzed. Figure 18 below explains that out of total respondents, 17% of the employees don't even know what GEC all is about. The GEC has been in operation for more than three years now and is anticipating in the company's growth. Moreover, 83 % of respondents who knew or heard about it, half of them have not worked with GEC.

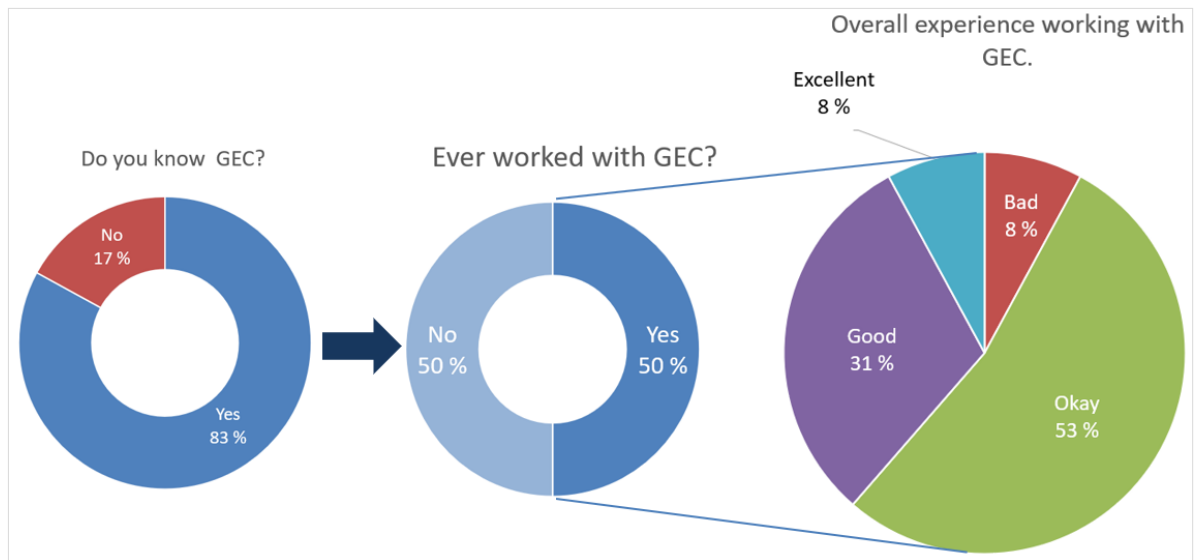


Figure 18- PBU's experience of working with GEC

Question number 7 in the survey was based upon the feedback for the GEC, and it was put to know the gist of the work bond between the teams. Respondents were asked to rate the experience of working the GEC from scale 1-5, where 1 is very bad, and 5 is excellent. Promisingly, only 8% of the participants had a bad experience dealing with GEC. However, more than half of the participants (53%) believe it was okay to work with them, neither good nor bad. Whereas people with good and excellent experiences with GEC are 31% and 8%. If we evaluate it at a macro level, we can say that individuals who have collaborated with GEC have a pleasant experience. However, it is advisable that GEC should improve more by working efficiently and minimizing mistakes.

We asked PBU respondents to evaluate the GEC in four key respects to further deepen their feedback: project time assessment, delivery time, work quality, and technical knowledge. The first two points are related to each other, whereas the third and fourth points are also connected and somehow favor one another. From Figure 19, we can see that all four aspects have mixed responses. Some respondents rated it as bad, okay while others rated it excellent. This mix

responses can be a result caused by many differences in the work experiences and related expectations. Let us analyze them more deeply:

- (1) From the figure below, it is apparent that about 85% of respondents believe that the time assessment for GEC projects has not been a problem. Also, 90% of respondents are glad that the GEC delivers the project on time. But what about the other 15% and 10% for the same? Why do these respondents believe that the evaluation and implementation of the GEC are not appropriate? Does something happen in any project? We don't know the answer as the respondent does not provide any qualitative response.

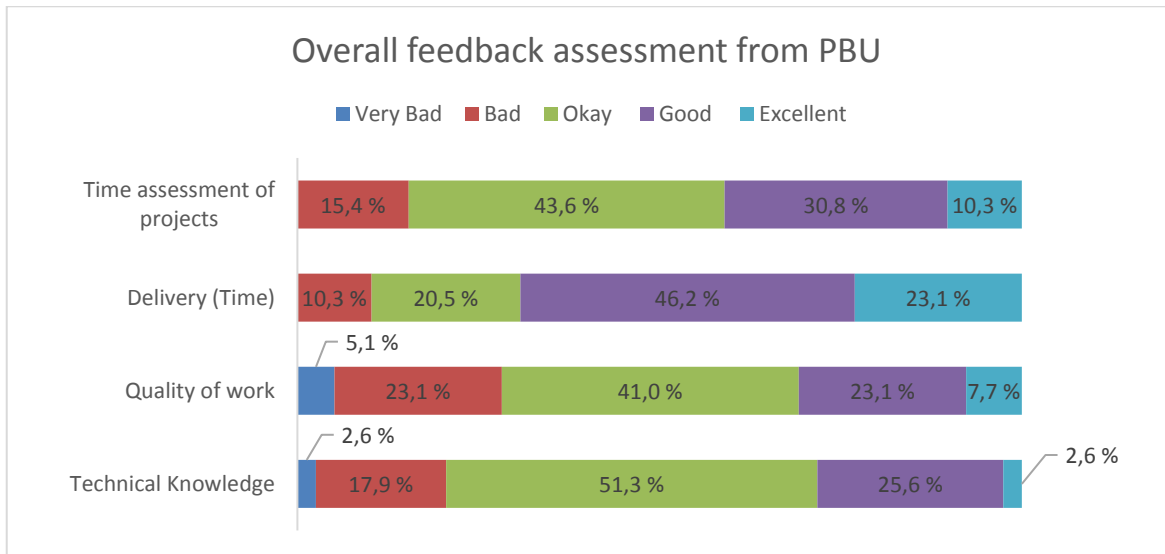


Figure 19 - Feedback Assessment for GEC from PBU

- (2) In the following two aspects, we can see a more extensive scaling of the negatives. Approximately 72% of the respondents believe that work quality has proved to be satisfying or, and 79 % believe that GEC has the technical know-how to comply with Finnish working standards. But again, there are over 28% of respondents who are disappointed with the quality of the delivery by GEC. Nearly the same number believe that the Finnish Technical Standards are not well known to GEC.

So, what might be the reason for these negative feedbacks? Is the GEC employee's incompetent with Finnish projects? But there are abundant of positive feedbacks too. So, are these responses to a specific project or an employee? Is there a technical knowledge

difference or because of differences in working environments between the two, or because of any cultural differences and viewpoints? We will discuss in another section after analyzing GEC and PBU employee interviews.

We asked people in the final part of the survey whether they preferred to work with the GEC in the future and whether they have collaborated earlier. The Figure 20 below illustrates the opinions of the employees for their future working interest with GEC.

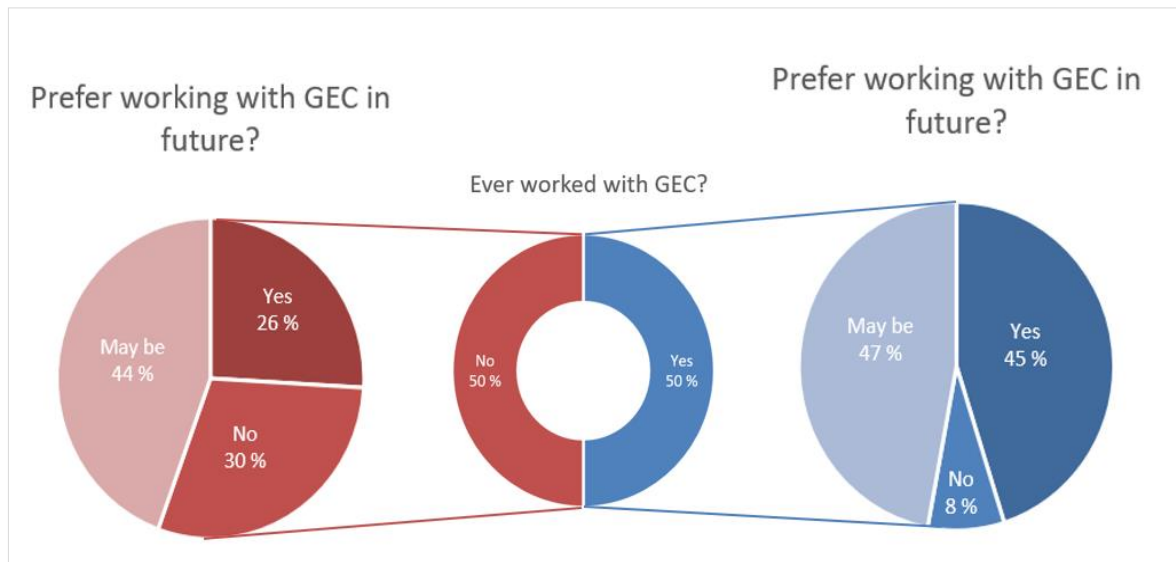


Figure 20- PBU's preference for working with GEC

Only 8% of those who have already shared or worked with GEC believe that they should stop working with GEC whereas 92% of respondents seem to be positive as they believe that their workloads could be shared with GEC. The other point which is also considered here is those teams or respondents who have never been involved in the captive outsourcing with GEC. The red section of the pie chart in Figure-20 shows the responses of the people who never had a chance of working with the GEC. It is very interesting that 44% of people think that they might share the project in the future, but not very sure. They don't know the capabilities of the GEC and the corresponding benefits. Approximately 26% of people are prepared to work with GEC, which is a positive signal.

In my view, these teams and managers need to know about the details of GEC and the procedure of working together. Another very interesting result is evident in the same pie chart that 30% of the people are pessimistic about working with GEC. The question raised here is:

why don't they want to? Do they know the benefits of working together? Are they suspicious about the capabilities? Are they scared of failing of projects? Or have they heard something negative from other teams? Is it because of the shyness of cultural differences? We don't have answers yet.

5.2. Comprehending the hitches in collaboration, and associated causes.

After analyzing the past and present workflow of the collaboration, it is apparent to comprehend the glitches. In this section, we will thoroughly focus on our second research question, which is to find the relevant issues accountable for the craggy collaboration.

RQ 2-What are the possible problems/ issues to attain successful collaboration?

To understand the possible glitches for the stronger and steadier working between two countries, interviews were conducted of the employees who are involved in the collaboration. Moreover, the interviews of HODs from both the teams were also taken along with the GEC director: to get a neutral view and the perspective for long-run planning of the collaboration. Firstly, we will try to comprehend Research question 2, which focuses on the problems and issues after that we will try to get some suggestions to make it better. Below is the table developed by after jotting down the important points.

Table 3- Summary of interviews

Interviewee partner	Position	Team	Expectations for success relationship	Issues highlighted
Interviewee-1	Director	GEC	Equal willingness required from both sides.	Self-confidence is lacking in GEC. Need to start asking.
Interviewee-2	HOD	GEC	Enforcing management policies	Need awareness in PBU, better project management needed.
Interviewee-3	Sr. Design Engineer		Stronger together	Mechanical- Needs broader information about the project. Electrical - needs bigger projects, need feedbacks, better planning needed. Management needs to convince PBU for sharing work. GEC needs to self-check their deliverables.

Interviewee-4	Senior Design Engineer	GEC	Needs to work as colleagues rather than the client. GEC needs to do QC for deliverables. Better and frequent communication saves times and deliverable more efficient.	Better kick off meeting needed. GEC members are demoralized. Need to solve problems one to one instead of taking to higher authorities. PBU people are intolerant on small issues.
Interviewee-5	Design Engineer	GEC	Needs better planning	Unnecessary pressure, effects efficiency.
Interviewee-6	Design Engineer	GEC	better communication	Needs bigger tasks
Interviewee-7	Design Engineer	GEC	All good	All good in Mechanical. Electrical has quality issues, and they get very small tasks.
Interviewee-8	Design Engineer	GEC	PBU should treat GEC as a colleague. Need better communication. Need feedbacks.	Small projects scope not clear. Miscommunication
Interviewee-9	Design Engineer	GEC	Need one to one contact. Need better communication, need a better kick-off meeting.	TL doesn't involve. PBU is shy in replying. No regular communication. Assumption creates issues — no bonding in the GEC team.
Interviewee-10	Design Engineer	GEC	Need guidelines, need team bonding, need feedback	Getting small tasks, lack of communication
Interviewee-11	Senior Modeler BIM	GEC	All good	All good in Mechanical. Electrical, not the following process, Scope not clear.
Interviewee-12	Senior technician	GEC	All well	-
Interviewee-13	Senior Technician	GEC	Communication is better	Needs broader information about the project.
Interviewee-14	Senior Technician	GEC	Communication gap. Better and faster responses save time and lower quality	Needs broader information about the project.

			issues. Need clear feedbacks from counterparts.	Lack of knowledge sharing within the team.
Interviewee-15	Senior Technician	GEC	The technician needs to be in kick off meeting, Need clear feedbacks from counterparts	Lack of team bonding in GEC, Lack of knowledge sharing
Interviewee-16	Senior Technician	GEC	Reference project needed, feedback needed, need team bonding	Communication gap and less information flow
Interviewee-17	HOD	PBU	Working and learning together, Focus on quality control	avoid wasting time, need better management for projects
Interviewee-18	Project Manager	PBU	Continuous learning	Better planning needed during summers, focus on specific type of projects.
Interviewee-19	Project Manager	PBU	Making trust	Job fear, need to educate PBU, need to share success stories.
Interviewee-20	Project Manager	PBU	Sharing knowledge, continuous learning	Need better understanding of standards.

All the interviews were emphasized in the business environment and the efficiency of the business process. Many questions concerning the quality of the results were seen in many interviews. This is a matter of high concerns because an essential pillar of any business is based on the quality deliverable. The data derived from the PBU satisfaction survey, interviews, and the general survey it is very evident that they continuously argue that quality deliverables are their prime concerns, and they are not receiving it from GEC. The question now arises; what does quality work mean? Both parties need to tell their own stories.

Below is the Ishikawa or cause-effect diagram developed by summarizing the causes that hamper the teams' steadier workflow. In this case, the causes and their effects are so interrelated that they reciprocate and become a chain reaction. Various reasons for uneven workflow from interviews were combined into five different groups:

(i) Culture

- (ii) Process
- (iii) Monitoring
- (iv) Strategic intent
- (v) Unforeseen Variables.

We will study all these observations one by one.

5.2.1. Observation -1 (Cultural influence and differences)

It has been deduced from several interviews, and the survey that deliverables of the GEC are lacking in quality. However, this is not always the problem, but it has been experienced many of the times. Although it has been reduced to least in one of the teams in the GEC, persist in the other. The HOD in the PBU says:

“On a bigger picture I am much satisfied, it’s a good thing for both sides: for India and for Finland”, later he adds **“but , our management and control is not working, that means we don’t have so much to learn together and work together- like side by side”**. **“It is very difficult (for GEC) to understand the Finnish standards, Finnish ways to do things”**.

The development of the project at a lower cost is very important for the company, but without compromising the quality of the deliveries. GEC must level up the quality to match the PBU's expectations before it gets too late to handle. But the other side of the coin is also essential to see, as GEC has its own story to tell.

Cultural dimensions play a vital role in the success of collaborative work between two countries, as explained in chapter 3.1. Some aspects lead to issues in a continuous workflow, which may be due to the culture of the country or the environment in the workplace. Some manager in PBU claims that GEC lacks accountability; they feel that GEC employees are not adequately focused on and lack in inspecting their deliverables. They need to check by themselves what they are sending thoroughly and cross-verify with the colleagues if possible. One of the employees from PBU says:

“Same mistakes in every project. I don’t doubt motivation in GEC, but lack of responsibility to make proper plans is missing. Is it because of culture or what, I don’t know, but planning is like “we do only what is shown in some paper or email”? Nothing more.”

It seems that the counterpart is in anger and annoyance; GEC needs to understand the grievances and take responsibility. Moreover, the Director in the GEC agrees that everyone should be accountable for its work, she emphasizes it as ***“Every employee is accountable for his own work and quality”***.

Another team member in PBU writes, ***“Commitment of GEC employees for PBU and project related specialties does not yet meet PBU's demands and expectations”***.

To counter this, many of the employees of one department argues that one of the reasons for wrong or poor deliveries is **a misunderstanding of the project** and the unavailability of the PBU managers when help is needed. However, they admit that managers are not doing it deliberately; they might be busy with something else. But still, GEC needs someone to be available to reply and tackle small queries when required. Secondly, many of their counterparts might feel shy in one on one conversation over the Lync call, and they instead want GEC to write an email for the queries. Moreover, sometimes, it takes days to get an email reply from PBU, which wastes time and effects work efficiency. As a result, GEC employees develop the drawing as per their knowledge and understanding, which in return tends to be low-quality certain times.

Another issue with the GEC team is **low sharing of knowledge**. A team can only be successful when each member of the units is having an appropriate level of knowledge and understanding of projects and technicalities. During the interview session in the GEC, it has been found that everything is not going well in one of the departments. There may be some egoism among the engineers that stops them from sharing knowledge. In the comment section during the survey, one of PBU staff commented:

“Questions are like, “please tell me how to do this,” they supposed to be engineers and we are not supposed to be school teachers. I don't have any motivation to do anything with them, two years for me is enough. Everything takes too much time, because of inspecting plans, etc. where I see the same mistakes, etc.”

From this comment, it is evident that the PBU manager has already attempted to explain the critical points to some of the GEC members. But later, in other projects, the same problems were seen. These regular and same concerns irritate counterparts as it impacts customer

values and takes time to review and fixing deliverables. GEC manager needs to talk to the team members and motivate them to share their knowledge.

Another issue seen during GEC's interviews is that some employees of PBU are afraid to share work. The point is not only the quality issue, but they think their job will be in danger if they send the project for offshoring. One of the very senior members of GEC says:

“People in Scandinavia might have a fear to lose their job if work is offshored to GEC. Whereas the reality is just the opposite, it is maybe a cultural issue.”

If this is true, then it is time to raise awareness of the fact that the market is competitive every day in the era of globalization. New players are coming to minimize the profit that impacts the giants over a more extended period. They need to think out of their box, the GEC director says,

“information should come from the top that why the company formed GEC”. It was formed ***“to get more market share, to change the game”*** she added.

5.2.2. Observation -2 (Process)

Captive offshoring initiates a measurable, uniform method that contributes significant achievement to an organization. The process is step by step standardized for the employees to follow and to become compatible with the needed technology. For the effective and steadier project deliveries, it is essential for employees to meet the standards set by the higher management. The process is a chain of certain steps, which includes documentation, feedback, regular meeting, training, regular assessments, etc. Bypassing any of them may have a longer-term impact on the activities and collaboration.

In our survey and interviews, it has been seen that there is negligence or looseness in the process by the employees. Many of the GEC employees claimed that they were not present in the Kick-off meeting of the project; instead, their team leader was attending the same. After the meeting team leader conveyed the technical inputs to the technician for the development of drawings. This causes the loss of data, or the TL sometimes misses the inputs which are very important for the technician before the commencement of the project. This gap in the data inputs takes the drawing in some other direction, which results in total quality issues which are raised by the PBU. A PBU manager commented on the survey as:

“Delivery time is good or even fast. Sometimes there are problems with the word “yes.” Meaning, that your designer says that they understood, but the result is not what was discussed. It’s not only one person’s fault, and we need to prepare better for the “start meeting” or the work instructions”.

The next vital things which arise is the improper documentation, whether it is at the start of the project (work order) or after finishing the one (Global Engineering Satisfaction Forms/feedback). It has been followed in many of the projects on time, but not in all. As we have already discussed in the above sections, that survey tells that 15.4% of the PBU believes that GEC is bad in time assessment of the projects. It may be one of the reasons for not signing the work order before the commencement of the project. In every work order, the scope of work and the time assessment must be mentioned and must be agreed by both the parties before commencing the project.

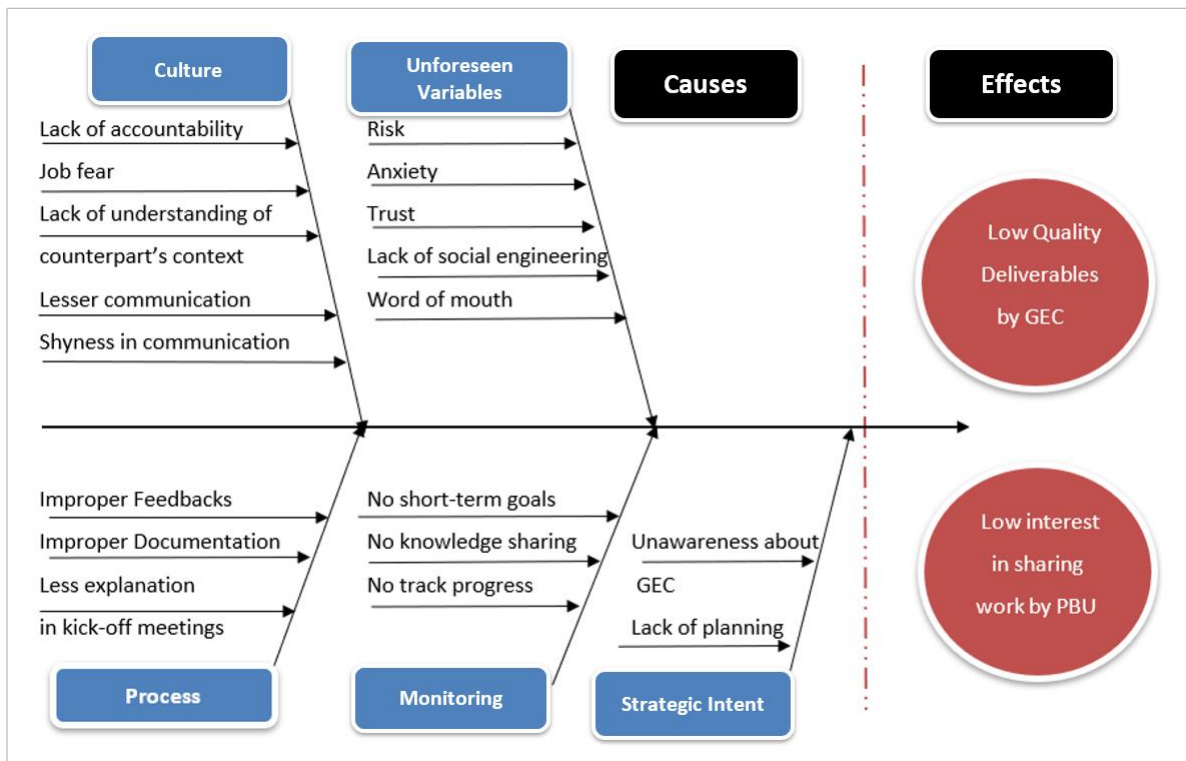


Figure 21- Cause and effect diagram for GEC-PBU collaboration

Moreover, after the accomplishment of the project, **GES or the feedbacks** are necessary as per norms set up the higher management. Some of the employees claim that whenever the

project is delivered without any issue and on the right time, the PBU gives compliment just over the Lync call, but as soon as there is an error or negative point in the delivery the counterpart stretches it and drops email taking the higher authority in a loop. These gestures develop anxiety in the GEC and losses trust in the working relationship.

“I don’t receive work directly from PBU, either my TL or another engineer gives it to me. Moreover, I never get any feedback of my work, so can I know about my learnings and performance”.

5.2.3. Observation -3 (Monitoring)

It is vital to know and monitor progress accurately to attain excellence. Same is for an organization; in our case, it has been seen that individual monitoring is not on track. However, some of the PBU workers ' remarks that they believe excellence resides in learning, also stated in the comments by PBU respondent below:

“Using GEC, it needs a lot of training between us and GEC. At this moment this process is under developing, but let's hope on someday this will work fine.” and ***“Needs to be in touch many times, so the quality for Finnish standards would be good.”***

Another significant element which seems to be missing in the GEC team is **sharing of knowledge** among themselves. Some of the employees confessed in the interview that there is a lack of knowledge sharing within the organization. This might be because of the egoism within the team or negative competition. A competition between the members of any group is very beneficial, but a positive one. It has been mentioned already in one comment from then PBU that they teach the same things to the GEC employees, again and again, this annoys. This means that the repetition of the same learning concept happens because of the two reasons:

- i. The GEC employees either do not collate the learning document for future reference.
- ii. PBU instructs the same things again and again to a different employee.

These repetitions of errors directly impact the deliverables and result in wasting time and money. It is astounding to realize that GEC doesn't have a centralized guide manual where they can collect project learnings. It is imperative to have a reference manual where they can

refer to the problems that occurred in the previous projects and seek a solution about how to deal with similar issues. One of the respondents in the survey posed the same question he states:

“Is there available references of completed projects and descriptions which were recognized advantages and disadvantages of each project.”

The above-discussed document will also help the PBU managers to know the type of projects GEC has delivered in the past. Moreover, they will even understand the problems that have been faced earlier and what can be done to eliminate in the future accordingly.

5.2.4. Observation -4 (Strategic intent)

One of the astonishing points came into the survey that about 17% of the PBU employees don't even know about the GEC. Moreover, out of the rest 83%, only 50% ever worked with GEC. Nearly all the respondents (97%) believes that the formation of GEC was held for cost saving, however about 47% respondents also believe that its formation was also for the reason to make a parallel resource globally. There were only 13%, 18% and 21% of respondents also believe that the reason for GEC's formation was for sharing knowledge, expanding global presence, and strengthening the competency globally.

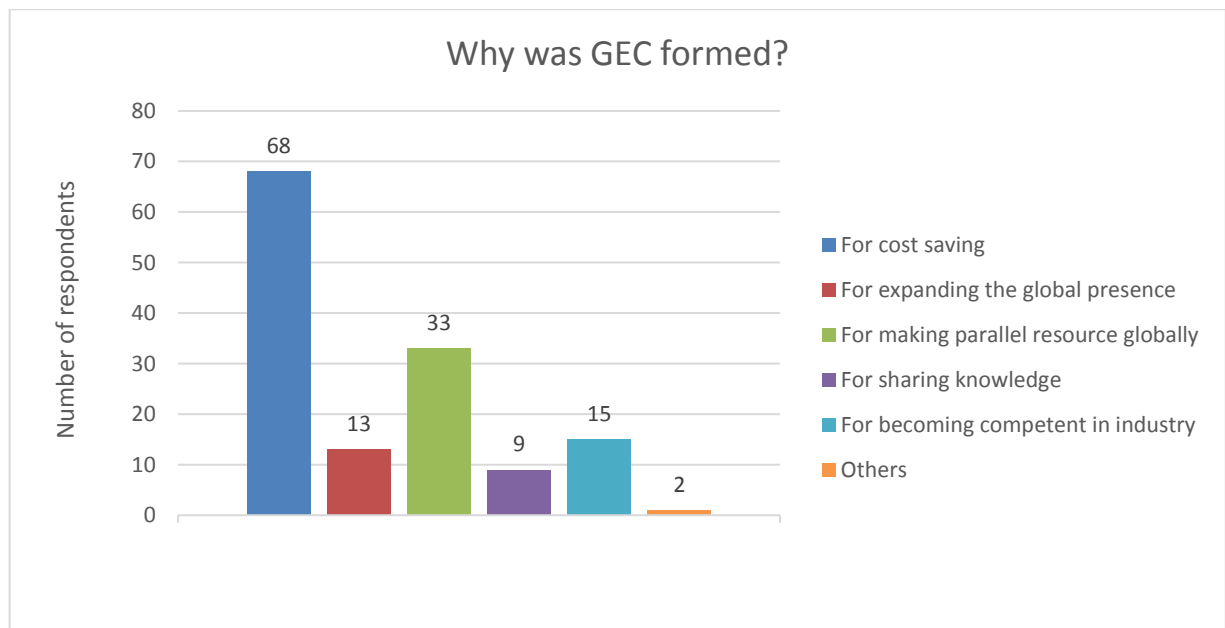


Figure 22 - PBU's opinion on the idea of GEC's formation

Knowing the company's goal for both places is of utmost importance to employees. They should be aware of their fundamental strategies and pursue the method appropriately. The information should come from top to bottom as the GEC director says:

“Global client needs a cheaper consultant in this age of globalization; whether they (PBU) do or not, their competitors will be doing it.”

Work sharing not only advantages PBU financially but also develops the organization's virtual parallel team. It will assist in long-term plans to compete and win the projects from competitors due to the reduction in costs and a better quality of service. During project implementation, problems and challenges always occur with a team, but how the team and executives manage and succeed is essential. Willingness, concentration, and positivity are all that both sides need. Although, it seems that many workers know about GEC but are not informed about its competencies. It is also clear from couple of the comments by the survey respondents:

“I know GEC exists but do not know of their competence” and “A competency list of the GEC team would be great. If it already exists, I will make sure to find it, but if not, it would be a great addition for finding help.”

There are teams/managers who realize the benefits and would like to collaborate with GEC in their projects, but the abilities of the professionals who work are unclear. They have no idea how and when they can utilize the team sitting thousands of miles away. Thus, again, it is a communication breach within the teams that many managers do not know much about it, even after such a long time.

6. Discussion & Conclusion

6.1. Managerial implications and suggestions

'Nobody in this world is perfect, nor does a relationship.' We all make mistakes in our lives, but a wise person is one who learns from his/her faults. This section is mainly focused on the suggestion and the managerial implication for this case collaboration. Moreover, this is also our concluding research question; it is:

RQ3. What can be done/ suggested to make the process steadier /better?

Nobody can change the past, its high time for the collaboration to look on present and future. The keys players from both sides need to take the initiative and identify the past mistakes and need to avoid them in the future. Several issues were identified and addressed in the earlier chapter, and moreover, as per the author's understanding, steps need to be taken by both the sides (PBU and GEC). We will discuss them one by one:

6.1.1. Steps needed to be taken by GEC

a) Managing quality deliverables

Quality is generally used to imply the excellence of a product or a service. The ability to meet the customers' requirement is vital, not only between two organizations but also within the same office. Quality must be managed – it will not just happen. It involves everyone in the process and applied throughout the team. The requirement of quality includes availability, accurate delivery, reliability, maintainability, and cost-effectiveness, among many other features. Quality improvement is a continuous process, and its excellence can be attained by avoiding problems rather than by perceiving and amending them after they arise. The main motive of any company is to deliver higher customer satisfaction. Below are the points which are essential for the GEC to focus on for better quality and stronger collaborations with their counterparts.

Control of quality- Inspection of poor quality by postproduction is time-consuming, wasteful, and uneconomical. and the inspections should be done before the delivery of the project. Every member needs to ask himself, 'I am doing correct' this type of process control is necessary for efficient working. A member needs to keep in mind all those instructions given by the PBU during the project start. Applying the learnings of past projects is also very valuable for an individual, but at the same time cross-checking with the counterpart is necessary. If a small

mistake is made since the start, that will last up to the whole project, and it will then end up being a mess. Revising it will take more time and correspondingly results in more cost to project. So, if there is any confusion or disparity, it's imperative to seek confirmation from their counterparts.

Teamwork and knowledge for quality- The efficient way to tackle the process mentioned above is through the teamwork. There are many advantages of working as a teamwork instead of working alone or as an individual. Firstly, a higher variety number of problems may be tackled easily. Secondly, the approaches are more satisfying to team members and enhance the team's morale. Thirdly, this teamwork in solving the problems solves the problems quickly and efficiently.

Training for quality- Author believes that training is one of the essential elements for improving the quality of any organization. It is not 'a one-day show,' instead, it is a planned, systematic and continuous process. In a large team, each encounter new problems in every new project and a new challenge comes with it. GEC needs to designate a specific scheduled time in which one or two individuals can convey their learning and discuss the issue with their teammates. This will boost up the team's morale, and learning will grow altogether. It will also be useful for the PBU as they do not need to resolve the similar problem with each member individually.

b) Communication with counterpart- Communication plays a vital role in our lives, whether it is personal or professional. The attitude of people can be influenced by proper communication, and the changing approach to quality is to gain acceptance of the need to change. Lack of communication can lead to severe problems that cause ambiguity, low interest, and linked quality issues. Communicating with one another not only saves time and effort, but it also provides dignity in work, self-improvement, and performance.

Today, organizations have a lot of tools to communicate with counterparts sitting thousands of miles in just one click. We have the tools to share our work and discuss our ideas and thoughts with them easily. It is advisable for the GEC to contact their PBU managers and discuss issues in the project. GEC often needs to discuss their idea, that will not only enhance their thought process but also gain trust with the PBU. However, it is excusable that, due to his / her involvement in other activities and because of the time difference, counterparts may not be continuously available to address the queries. In case of

unavailability of the peer, it is recommended for the GEC employees to write down the clear, concise email explaining the issue and the related possible solution.

c) Inquire for Feedback- After interviewing several GEC employees, one more point surfaced that they do not receive regular feedbacks for their work. It is imperative to gather feedback from PBU after projects are accomplished or when they reached a milestone in a bigger project. GEC must take a step forward and ask its partners to share experience during a project. It can be done via an e-mail, during a conversation or providing the Global Engineering Satisfaction Forms. An individual should be open to receive any concerns or criticism from their peers and should also be actively willing in future tasks for overcoming the fears.

6.1.2. Steps needed to be taken by PBU

a) Need awareness in the team- Collaboration is a success when every team member has a clear vision of where to go. They must be aware of the strategies of the company, what is its significance, and what their role should be. It has been experienced in many of the interviews of GEC team that PBU might have resistance in sending bigger/better projects. They claim that PBU share tiny tasks, it is because they are not interested in sharing the project, as the senior member in GEC says

“Implementation of the policies and information should be flown from lower for collaboration” and MEP (PBU)”.

We need to understand why they hesitate to share work. One of the managers in PBU tell his experience as:

“Very sad to say, but if some of the people in PBU give work to a trainee in Finland, they expect quality delivery of 60-80%, but if they give the same work to GEC, they expect it to be 110% at least”.

However, question 8 in the survey explains that many people in the PBU thinks that the formation of the GEC is to save money. But, the reality far more than this. There might be insecurity within the team that if they share the work to GEC, what will they do, and their

job might be in danger in the future. Comment received in the survey from a member of PBU also points:

“This adventure will be very expensive for company. Should stop in time, NOW.”

The fury and wrath can be deduced from the comment, and it signifies that a bunch of employees doesn't want to share work to GEC and feels threatens concerning it. It is imperative for the management to clarify this illusion and motivate the team. Two crucial steps are essential to be taken:

- 1) Explanation of the role of GEC and its benefits for PBU in longer terms
- 2) A road show is very for the employees to know the competencies of the GEC engineers.

GEC employees also raised a point regarding the **quality of work packages**. Employees believe that the work package given to them is generally drafting work, whereas it is very little in the technical design part. They argue that PBU should trust them and share technical work also along with CADD drafting.

b) Need consistent communication with counterparts- Several interviews have shown that GEC claims," managers at PBU are very busy and most of the time unavailable to respond to the Lync calls." Of course, it's quite normal and acceptable that managers have a lot of other tasks to do, they can't answer the GEC colleagues now and then. But, to avoid discrepancies within the teams and the project delivery, it is appropriate to communicate them as much as possible. Delays and negligence in the replies can lead to quality issue, which waste of time, money, and loss of face. It is recommended to come up with a specific schedule in which they need to fix a time to communicate with their counterparts for their grievances and to check the progress of work.

c) Need for descriptive kick-off meetings- It is often said that 'all is well, that ends well,' but the start of any project is as essential as its accomplishment. If everything goes right from day one, the process becomes more comfortable and steadier afterward. We need to understand the importance of the kick-off meetings as suggested from a GEC interviewee:

“We need a better, more explanatory kick-off meetings, moreover, we need to understand the whole picture of the project rather than working on a tiny part of it.”

Managers in PBU need to understand that people sitting thousands of miles away have different culture and thought process; they might misunderstand inputs if not discussed. One of the respondents in the survey mentioned:

“Delivery time is good or even fast. Sometimes there are problems with the word "yes." Meaning, that your designer says that they understood, but the result is not what was discussed. It's not only 1-person fault, and we need to prepare better for the "start meeting" or the work instructions.”

It is advisable to both the teams to have a better kick-off meeting in which points like, the scope of the projects, technical aspects, and time schedules need to be precise. It will be worthy of having a recorded video call and screen sharing for explaining the project for future clarification and minimizing confusions.

d) Provide feedbacks- Trust and experience take time to build up, especially between people of different backgrounds and cultures. One of the critical aspects of learning and growing is feedback. Feedback from peers or counterparts provides an idea of how things progress and how to solve a specific problem. Below are a few points to consider while conveying feedback.

- i. In a collaboration, both negative and positive feedbacks play an equally important role. The negative feedback suggests ' what went wrong ' and how to solve this problem. Whereas, a positive one stimulates the feeling of being rewarded and help to build trust and boost motivation in the team.
- ii. The human mind learns best when caught in action, and it is recommended to be prompt in providing the feedback. Presently in PBU-GEC, either there is no such feedback, or the feedback come after the project is accomplished. To rely on one's memory is too far, and ambiguous, productive feedback needs frequent feedback.

6.2. Summary of the thesis

This thesis aims to study the collaboration between the Finnish and Indian offices of the case company. The theories used in thesis mainly revolve around covering the process of Outsourcing, majorly focusing on captive offshoring, analyzing collaboration situation in the case company, associated problems, pros, and cons.

Thesis initiated with the basic understanding of the concept of outsourcing, offshoring, and contrast. It further explains the types of offshoring, profoundly focusses on the captive offshoring. The case company is presently following the strategy of captive offshoring. Therefore, discussing the captive offshoring, its advantages and the associated risks was apparently imperative.

Outsourcing process is an overall sophisticated system of several activities which carries some managerial predicaments. Every organization has its internal culture and environment, but then it is essential to know how it utilizes its assets to get a competitive edge over the others. To understand the outsourcing, it is important to undergo through its approaches for strategic management. PESTLE analysis, along with Hofstede's Cultural dimension, are studied and compared between India and Finland. These couple of aspects are essential and effects the whole process of offshoring significantly.

The solutions of the thesis objectives were developed by studying the relevant data for the last three years, collected from the GEC. Consequently, A survey was designed to access the perspectives of the PBU employees towards the GEC. A more refined result was deduced after analyzing all the data and the views.

Another critical issue was to find probable problems for a steadier collaboration and their solution. To construe the genuine resolution, relevant employees from both sides (who are in continuous contact) were interviewed. Notably, there were so many issues came into picture which were hampering the collaboration. The interviewees themselves suggested some probable solutions for making the collaboration process better and efficient. The outcomes related to problems and the responses were discussed one by one. Initially, it was supposed that GEC was lacking in maintaining the Finnish standards of design. But it was found that there was a number of things which were making things worse. Apart from irregularities in following the process and documentation, it has been noticed that both the parties are not as much communicating as required. This lack or gap in communication leads to many complications like anxiety in GEC team, lack of knowledge sharing and corresponding job loss fear, etc.

This thesis is explicitly intended for the case company, but it will benefit other relevant students and academicians also who are interested in similar research. The thesis might render the academic whose research is outsourcing, offshoring, and global management. A cause-effect

diagram has been developed from the results. It will provide a fundamental understanding of the potential issues that can emerge between and two different cultures in any industry. Moreover, the explanation of how to make collaboration smoother and how to manage the quality of the deliverable will also help the reader from an industrial engineering background.

*As already stated, that results are generated partially by qualitative analysis, based on the perspective of the respondents. There might be a deflection in the results as the answers given by the respondents (during the survey and interviews), depends upon their mood, time, state of mind etc.

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Appendix I

Survey of your work experience with [REDACTED] Engineering Center [REDACTED]

This survey is regarding a thesis for one of the [REDACTED] employees and it will take only 2 minutes to complete. Your responses will be kept completely anonymous, so please feel free to provide your valuable inputs.

1. For how many years you have been working in [REDACTED] Finland Oy? *

- 1-3 years
- 4-6 years
- More than 6 years

2. Which department you work in? *

- Electrical
- HVAC (LVI)
- Other

3. Do you know about [REDACTED] Engineering Center [REDACTED] ? *

- Yes
- No

4. Have you ever worked with [REDACTED] ? *

- Yes
- No

5. How many projects you have worked with [REDACTED] ? *

- 0-3
- 3-6
- More than 6

6. How will you rate your [redacted] on the below aspects? *

Where 1 is considered as very bad and 5 as excellent.

	1	2	3	4	5
Technical Knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delivery (Time)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time assessment of projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. How will you rate you overall experience working with [redacted]

- Very Bad
- Bad
- Okay
- Good
- Excellent

8. In your opinion, why was [redacted] formed? *

Select atleast one

- For cost saving
- For expanding the global presence
- For making parallel resource globally
- For sharing knowledge
- For becoming competent in industry
- Other too (please suggest in comment section at the end of survey)

9. Do you prefer working with [REDACTED] in future? *

- Yes
- No
- Maybe

10. Remarks / Comments

Kirjoita vastaus

Appendix II

Questions for semi structured Interview for GEC-PBU collaboration

- 1) How differ [REDACTED] than other organizations?
- 2) GEC has experienced a significant expansion during the tenure. How do you see it as a whole?
- 3) What difference do you see, between your expectations and reality of the collaboration?
- 4) There is difference in MEP team size with other departments, how do you see it?
- 5) In your opinion, what are the real causes for fluctuations in the work load?
- 6) What is the target?
- 7) How your team treats you? and how your counterparts do?
- 8) What difference do you see in your team and others?
- 9) What steps have been already taken?
- 10) Is the documentation have been strictly followed during and after the project?
- 11) What kind of feedbacks do you get from your counterparts?
- 12) How satisfied are you with GEC/PBU?
- 13) What should be done, to mitigate the issues?
- 14) What are the tentative plans for GEC/PBU?

Appendix III

MEP Performance - 2016													
M & P													
Particulars	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Team Delivered Hours	0	326	484	625	580	471	252	234	295	126	237	134	3 764
Offshored Hours	0	278	484	625	640	535	252	147	119	22	277	134	3 513
Billing Ratio (%)	0	51	83	100	100	77	46	51	63	94	76	40	64
Headcount	4	4	4	4	4	4	4	3	3	1	2	2	2
Electrical													
Particulars	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Team Delivered Hours	499	340	485	356	531	497	195	323	345	302	321	242	4 436
Offshored Hours	283	320	485	356	575	541	142	167	191	296	289	118	3 762
Billing Ratio (%)	66	47	66	49	81	63	31	45	51	60	68	53	57
Headcount	5	5	5	4	4	5	5	5	5	3	3	3	3
Total													
Particulars	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Team Delivered Hours	499	666	969	981	1 111	968	447	557	640	428	558	376	8 200
Offshored Hours	283	598	969	981	1 215	1 076	394	314	310	318	566	252	7 275
Billing Ratio (%)	38	49	73	73	90	70	38	48	56	68	71	47	60
Headcount	9	9	9	8	8	9	9	8	8	4	5	5	5

MEP Performance - 2017													
M & P													
Particulars	Jan-2017	Feb-2017	March-2017	Apr-2017	May-2017	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Total
M&P Team Delivered Hours	72	136	165	366	887	896	886	842	563	486	772	434	6 504
M&P Offshored Hours	72	136	165	366	887	896	886	842	563	486	772	434	6 504
M&P Billing Ratio (%)	43	89	74	60	90	98	97	98	58	52	68	45	74
M&P Headcount	1	1	2	5	6	6	6	6	7	7	7	7	7
Electrical													
Particulars	Jan-2017	Feb-2017	March-2017	Apr-2017	May-2017	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Total
Electrical Team Delivered Hours	26	183	342	563	560	225	382	425	736	580	604	748	5 372
Electrical Offshored Hours	24	183	314	563	560	225	220	279	582	552	604	748	4 852
Electrical Billing Ratio (%)	5	45	62	66	45	19	31	35	69	62	47	68	46
Electrical Headcount	3	3	4	7	8	8	8	7	7	7	8	8	8
Total													
Particulars	Jan-2017	Feb-2017	March-2017	Apr-2017	May-2017	Jun-2017	Jul-2017	Aug-2017	Sep-2017	Oct-2017	Nov-2017	Dec-2017	Total
Combined Team Delivered Hours	98	319	507	929	1 446	1 121	1 268	1 267	1 299	1 066	1 376	1 182	11 876
Combined Offshored Hours	96	319	479	929	1 446	1 121	1 106	1 121	1 145	1 038	1 376	1 182	11 356
Combined Billing Ratio (%)	15	57	66	64	64	54	59	61	64	57	57	57	58
Headcount	4	4	6	12	14	14	14	13	14	14	15	15	15

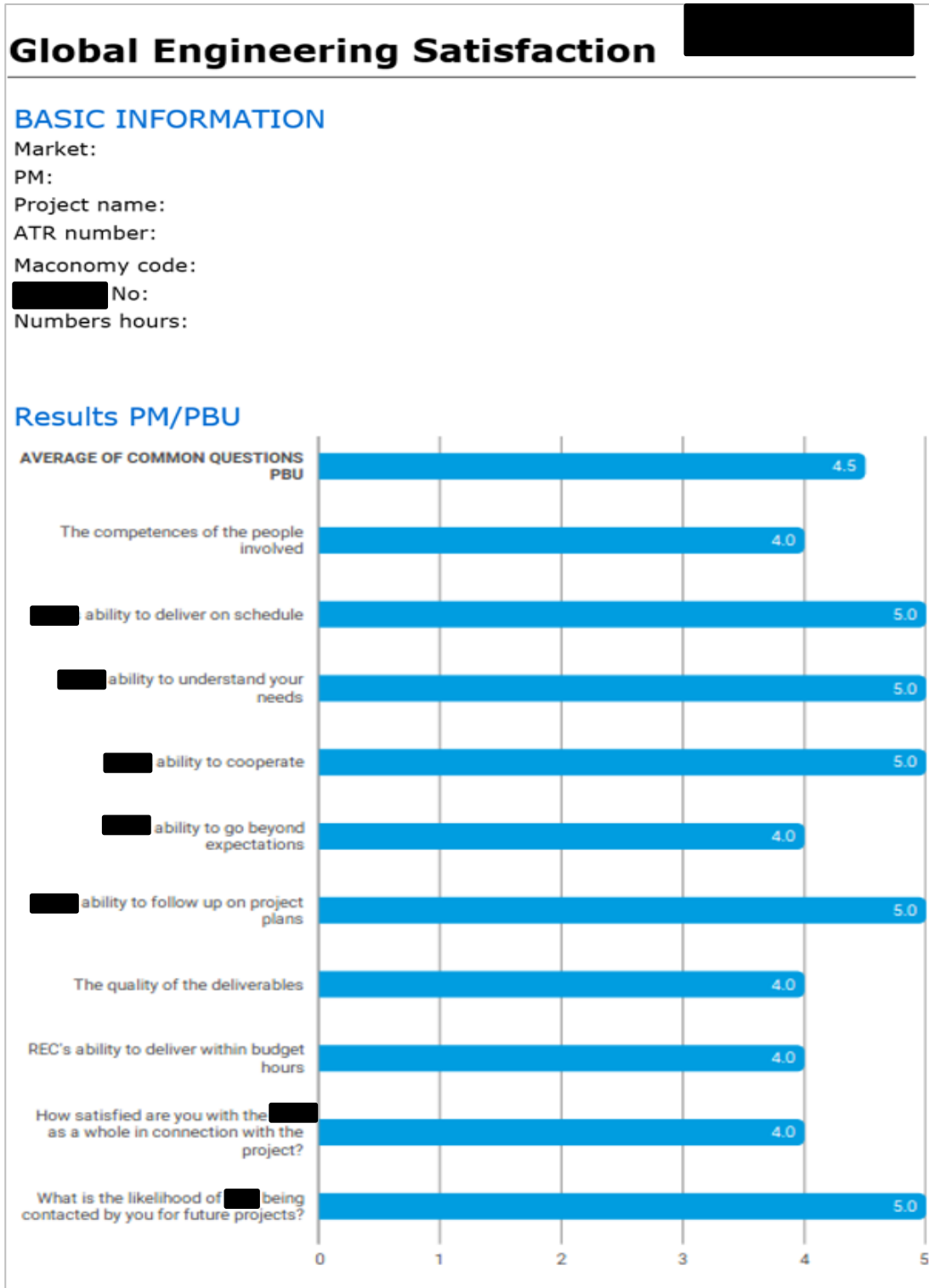
MEP Performance - 2018

M & P												
Particulars	Jan-2018	Feb-2018	March-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018
M&P Team Delivered Hours	264	839	736	710	999	839	901	764	660	508	367	804
M&P Offshored Hours	255	808	736	710	999	839	887	752	660	521	330	801
M&P Billing Ratio (%)	25	88	76	65	84	78	73	61	53	45	33	71
M&P Headcount	7	7	7	7	7	7	8	8	8	8	8	8
Electrical												
Particulars	Jan-2018	Feb-2018	March-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018
Electrical Team Delivered Hours	692	606	595	770	795	754	837	906	922	827	696	940
Electrical Offshored Hours	692	606	575	694	787	752	777	739	861	773	583	930
Electrical Billing Ratio (%)	54	51	44	55	55	59	57	69	71	59	55	71
Electrical Headcount	8	9	9	9	9	9	9	9	9	9	9	9
Total												
Particulars	Jan-2018	Feb-2018	March-2018	Apr-2018	May-2018	Jun-2018	Jul-2018	Aug-2018	Sep-2018	Oct-2018	Nov-2018	Dec-2018
Combined Team Delivered Hours	956	1 445	1 330	1 480	1 794	1 592	1 738	1 669	1 582	1 335	1 063	1 744
Combined Offshored Hours	947	1 414	1 310	1 404	1 786	1 590	1 664	1 491	1 521	1 294	913	1 731
Combined Billing Ratio (%)	41	67	57	60	68	68	65	65	62	53	45	71
Headcount	15	16	16	16	16	16	17	17	17	17	17	17

MEP Performance - 2019

M & P													
Particulars	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Team Delivered Hours	979	848	932	1 114									3 871
Offshored Hours	967	848	931	1 168									3 913
Billing Ratio (%)	80	69	87	89									
Headcount	8	8	8	8									8
Electrical													
Particulars	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Team Delivered Hours	1 147	1 043	967	1 007									4 164
Offshored Hours	1 027	1 043	967	1 007									4 044
Billing Ratio (%)	80	84	87	87									
Headcount	9	8	8	8									8
Total													
Particulars	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Team Delivered Hours	2 126	1 891	1 899	2 121	0	0	0	0	0	0	0	0	8 035
Offshored Hours	1 994	1 891	1 898	2 175	0	0	0	0	0	0	0	0	7 957
Billing Ratio (%)	80	76	87	88									
Headcount	17	16	16	16	0	0	0	0	0	0	0	0	16

Appendix IV



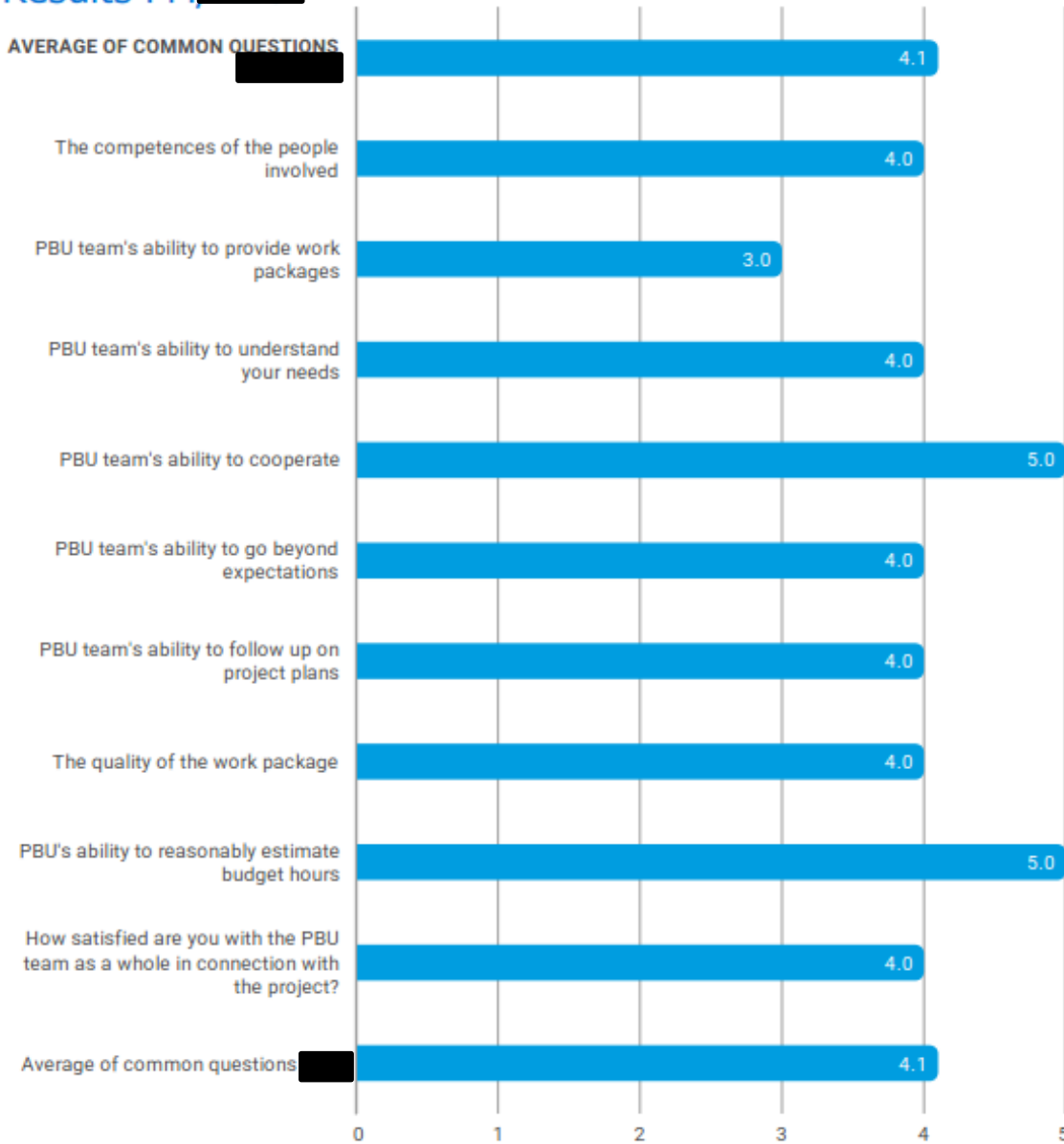
What do you think the [redacted] Team does well?

- Fast delivery, independent work and mutual understanding

What do you think the [redacted] Team could do better?

- Always to keep in mind, that quality is the most important aspect in project work.

Results PM [redacted]



What do you think the PBU Team did well?

- Overall collaboration with PBU throughout the project was good.

What do you think the PBU Team could do better?

- The work package should contain more of information regarding the project.