Decision Making of IT Outsourcing
In Three Companies

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Abstract

The thesis report investigates the important steps related to the decision making of IT outsourcing. Mostly organizations do not achieve their expected goals from IT outsourcing due to the complexity of decision making process. The main purpose of this thesis, thus, is to describe the necessary steps of IT outsourcing decision making, reveal both major reasons for taking such a decision and main risks involved with it. As secondary data source, books and some previous research papers on the issue have been used in order to give better understanding of the thesis topic. To collect relevant empirical data, a questionnaire was sent to a range of Swedish and Pakistani companies. The thesis report shows that, a successful and effective IT outsource decision requires a clear vision of the issue and of the effects that such a decision may bear with it.
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1 Introduction:

The introduction is intended to give the reader an overview of the subject, motivation and course of the thesis project. Starting with a background phase the reader is given an overview of IT outsourcing and the importance of decision making in IT outsourcing. Theoretical part explains the all important steps that are related to decision making of IT outsourcing. This section also describes why companies make the decision of IT outsourcing and what problems they can face from IT outsourcing. The questionnaire method was applied to obtain from a range of Swedish and Pakistani companies relevant information on IT outsourcing.

1.1 Background:

In early 1990s, IT outsourcing has received great attention from researchers and scholars. The organizations lacking in-house IT technology and expertise usually outsourced their IT function. Some companies have strong IT capabilities such as Microsoft, IBM and SUN, are also outsourcing some of their IT activities in order to reduce the cost and focus on their core-activities. [25]

The rapid growth in IT sector has increased the potential for greater efficiency, development and productivity. A wide range of organizations lack proper IT knowledge and experiences. Therefore, these organizations adopt IT Outsourcing as a solution for development and management of IT application. [27] The companies use IT outsourcing method in short and long term perspective to achieve efficiency, flexibility and cost reduction. But many companies do not benefit from IT Outsourcing. The decision to outsource IT services is difficult for any company and its managers. According to a new report from Gartner market research firm half of IT Outsourcing projects will be consider unsuccessful because they have not delivered estimated value. [33]

This thesis covers important steps of IT Outsourcing decision making and ways to benefit from such decisions.

1.2 Problem Statement:

The decision to IT Outsourcing is difficult. According to Gartner research indicates that many IT Outsourcing projects are less successful than expected and European business lost as much as $ 7 billion on poorly managed outsourcing which highlights the complexity in decision making and the financial risk involved (1). In order to gain advantages from IT Outsourcing companies and their managers need to know the important steps for successful IT Outsourcing such as pre-decision steps of IT Outsourcing, sourcing model and selection of vendors. This thesis provides an overall description of all the important steps in IT Outsourcing.

1.3 Aim of the project:

The thesis aims at:
1) Describing the important steps of IT Outsourcing decision making.
2) Finding the risks that companies face in IT Outsourcing

3) Finding the reasons compelling the companies to resort to IT Outsourcing.

1.4 Methodological planning:

This part explains the method and the research approach used in conducting the study.

1.4.1 Data collection:

To conduct an appropriate research, it is important to carefully select appropriate theory and empirical data.

1.4.2 Secondary data:

Secondary data of this project are based on different sources like research papers of different authors, books, articles and the internet. In searching for research papers of different authors a main source was virtual library such as Mälardalen University Library’s online database like Elin@Mälardalen, ProQuest (ABI/INFORM), Emerald and Ebrary. The main source for secondary data is the research papers and books. Secondary data are used to develop the theoretical framework of the thesis.

1.4.3 Empirical data:

For empirical data collection it was necessary to first of all to find companies that outsource IT activities. The questionnaire method was used to obtain information about decision making of IT Outsourcing from diverse companies of Pakistan and Sweden.

1.4.4 Construct validity theory:

For the theoretical part of the thesis multiple sources like research papers, articles and scientific books are used. For collection of empirical data questionnaire method is used and the questionnaires are based on the theoretical framework, this also shows the construct validity of the empirical information and the analysis is ensured.
2) Literature review

2.1 What is IT Outsourcing?

Outsourcing is found everywhere in the IT world. The rapid growth in this sector has increased the potential for greater efficiency, development and productivity. Speedy technological change has been paralleled by many transformations in the way in which IT is viewed and managed by organizations. A group of experts think that the trend towards outsourcing reflects maturity in the IT world. The major IT outsourcing companies focus on their core competencies and find it advantageous to outsource other functions. The most common processes outsourced in IT outsourcing are software expansion, system hosting and system maintenance. IT outsourcing involves a third party which manages a particular application, including all related servers, software upgrades and network etc. [2]

For last decades many corporations have used IT outsourcing for their business strategy. However, for the support of their system maintenance, application progress and amelioration of their technology infrastructure, companies in banking and insurance have adopted Information Technology Outsourcing [32].

Software development, system maintenance, core systems hosting and other systems hosting are the most used outsourced process by Information Technology Outsourcing. Financially it is beneficial for a company, who wants to outsource all or part of its security assessment due to immediate action. As security assessments and penetration tests are conducted periodically, organizations can choose whether to carry the staff overheads all year round, make staff cuts or simply allocate the resource elsewhere in the department.

Thinking about the outsourcing, modern businesses have to take into consideration not only outsources functions but also their consecutive evolving information technology (IT) requirements. That is the reason; many firms have adopted Information technology outsourcing in recent years.

Information technology outsourcing keep a third part as a contractor for the management of particular application, related servers, networks and software upgrades. Of all the jobs being outsourced its Information Technology Outsourcing or the global it outsourcing that stands out of the rest by taking almost 28% of the total outsourcing market.

Most of the companies always cooperate with Information Technology Outsourcing. Because of the reason that it is a specialized work. It gives a chance to companies to develop at a lower cost cheap labor and promote research with time saving. [32]
2.2 Definition of IT Outsourcing:

IT outsourcing is defined by a range of scholars and researchers.

“IT outsourcing as the significant contribution by external vendors in the physical and/or human resource associated with the entire or specific components of the IT infrastructure in the user organization.” [1]

“IT outsourcing occurs when an organization contracts a service provider to perform an IT function instead of performing the function itself.” [34]

“IT outsourcing … a decision taken by an organization to contract-out or sell the organizations IT assets, people, and/or activities to a third party vendor, who in return provides the services for certain time period” [22].

“IT outsourcing define IT outsourcing as the transfer of IT services or business processes from one company to another” [13]

Information systems (IS) or information technology (IT) outsourcing can be defined as the transferring of an IS/IT function that was previously carried in-house, to a third party provider. [23]

After analyzing different range of scholar definition of IT outsourcing I have come with this definition.

“When an organization make contract with third party to provide IT services for certain time of period.”
2.3 History of IT Outsourcing:

The concept of IT outsourcing is not a new phenomenon. As the use of IT became extensive outsourcing was considered as a necessity rather than a unique competitive advantage. Managers became more interested in the outcome of their investment in IT and its impact on the organization’s efficiency and overall growth. They became less involved in the technological details of the IT infrastructure. The concept of outsourcing IT activities began to expand and there came a remarkable advancement in this field. [2]

The first major outsourcing initiative to receive worldwide publicity came in 1989 when Eastman Kodak hired outsiders to buy, operate and maintain its information processing systems. IBM, Digital Equipment Corporation and Businessman were awarded outsourcing contracts worth in total approximately 500 million pound. Initially, outsourcing was viewed as a move to transfer responsibility for the entire IT department to a third party. But in recent years, as experience and knowledge has deepened, outsourcing has become an option to be applied selectively or comprehensively to the different spheres of IT sector. [1]

The IT outsourcing market was given an additional boost in the late 1980s and 1990s by many national governments that sought to drive radical change by encouraging public sector bodies to adopt private sector efficiency techniques. Now in the 21 century we have a rich and mature IT outsourcing market, offering a wide variety of services to meet different requirements. [2]

2.4 Size and Scope of the IT Outsourcing Market:

IT outsourcing has grown at an exceptional pace during the past decade in North America, UK and Australia. The trend towards outsourcing has also increased elsewhere in Western Europe, South America and Asia. Companies try to lower IT spending and convert unpredictable costs into fixed costs.

An examination of the size of the outsourcing market is complicated because different research organizations combine different types of outsourcing in their surveys. Nevertheless, all agree that growth in the outsourcing market continues to outstrip other sectors of the IT industry and is currently running at around 10-15 percent per annum. [2]

Information technology is the most popular kind of outsourcing due to its significant nature to many businesses and the sudden increase of the internet. It has been projected that IT outsourcing grow to $1.2 trillion in 2007. [31]
2.5 IT Outsourcing decision making:

The whole process of the outsourcing decision-making requires a great deal of effort and careful examination throughout the whole process until the decision is finalized. The following “foundation” steps are to be achieved before the finalization of the whole exercise of decision making:

1) strategic direction for the organization should be set;
2) company’s core competency should be identified and its tactical objectives should be set;
3) a list of suppliers / vendors should be developed for the further consideration;
4) an outsourcing process implementation and governance team should be chosen.

Before making any strategic IT outsourcing decisions (For instance, to outsource because of short-term capacity, staffing, or production problems), the corporate leadership must set the overall direction for making IT outsourcing decisions within the already identified framework of the organizational strategic goals. There is always a need to evaluate the organization’s core competency and the overall orientation of its strategic goals, because it aids a lot in the decision making process by simplifying the process. In this way decision making team gets the direction required to move on by identifying the key areas to be worked on. Core capabilities of the organization present a distinct advantage in a competitive marketplace. In reality, core competencies are what define the business as unique and exclusive. Core capabilities are in fact the indicator of the overall outlook of an organization’s business and these are what define a certain specific place for the organization. Thus one must be clear on these before beginning to make outsourcing plans. [5]

IT outsourcing decision making is a potentially multifaceted process which ideally addresses issues within a wide range of area, such as economical (e.g., financial feasibility), technological (e.g., performance metrics) and political (e.g., union pressures). The process of outsourcing and decision making covers various dimensions of business but it is obvious that in case of poorly evaluated decisions there lie multiple chances of huge losses to an organization in terms of finance and skilled staff shortage etc. There is degree of risk involved with outsourcing (Aubert, Patyr & Rivard, 1998; Earl, 1996). In its 2004 report, the research report Gartner states that as many as 80% of outsourcing contracts are unproductive and that European business wasted $ 7 billion on poorly managed deals. This highlights two main issues. The first one is the potential complexity of outsourcing decision making and the second one is concerned with the financial risks involved. [1]

Large outsourcing decisions are likely to be taken mainly by top or financial management and involve different stakeholders with multiple interests. Decision makers often do not understand that the goals and enhancements expected would only be achieved if the outsourcing arrangement was structured so as to allow for and enforce these improvements. [4).

The decision of outsource is very complicated, one that affects the work of several and the future of the company’s IT and IS structure. It usually involves several groups of people like top management, IT experts and chief information officer’s of company. It is very important that before making decision of IT outsourcing company should be well informed about the
advantages and disadvantages of outsourcing and then evaluate each one in light of the precise characteristic of the company IT and IS department and the application. [6]

A lack of resources and expertise often lead to poor decision making, which in turn leads to disappointed results. Similarly hasty decisions often don’t undertake the whole scenario hence these are more venerable to end in disappointment. Outsourcing consultants have lived through many outsourcing initiatives and have achieved insight into what works and what does not. Poor decision at the beginning of an outsourcing initiative always has a tendency of converting into later problems. These consultants have got the necessary skill and expertise to look into the minute details of the whole process and usually they come up with very innovative ideas. The outsourcing consultant can help the project team to avoid the decision traps that can trouble outsourcing projects. [3]

Maurice F.Greaver describes ten common “decision traps”:

1) **Plunging in:**

Starting to gather information and reach conclusion without first taking a few minute to think about the current scenario of the issue. This is a kind of hasty beginning which usually ends up in a complete mess of the whole procedure.

2) **Frame blindness:**

Setting out to solve the wrong problem because you have created a mental framework for your decision with little thought that causes you to ignore the best options or lose sight of important objectives. A conventional of pre-conceived model can not fulfill the needs of every project; hence this practice should be avoided.

3) **Overconfidence in your judgment:**

Fail to collect key information because you are too sure of your assumptions and opinions. This is another important factor that how many outsourcing decision making process results in failure.

4) **Lack of frame control:**

Failing to define the problem in more ways than one or being excessively influenced by the frames of other. Every outsourcing process has its unique challenges and therefore it requires to be completed in its own specific environment. If the models of some other procedures are followed just because they have yielded results in other cases then it might be that of plunging the whole process into a shear disappointment.

5) **Group failure:**

Assuming that with many smart people involved good choice will follow automatically and therefore failing to manage the group decision making process.
6) **Shortsighted shortcut:**

Relying incorrectly on “rules of thumb”, such as completely trusting the most readily available information or anchoring on suitable facts may also lead to disappointing results.

7) **Shooting from the lips:**

Believing you can keep directly in your head all the information you have discovered, and therefore “winging it” rather than following a regular procedure when making the final choice.

8) **Fooling yourself about feedback:**

Failing to understand the evidence from past outcomes for what it really says, either because you are protecting your ego or are tricked by perception.

9) **Not keeping track:**

Assuming that experience will make its lessons accessible automatically and therefore failing to keep systematic records to track the result of your decisions and failing to evaluate these results in ways that reveal their key lesson.

10) **Failure to audit your decision process:**

Failing to create an organized approach to understanding your own decision making, so you remain constantly exposed to all the above mistakes. [3]

2.6 Decision tree as sourcing model for making decision of IT Outsourcing

Decision tree is an effective tool in achieving the desired objectives for an organization. In fact, this makes the process of making correct decision comparatively easy. It helps the organization to make a good decision regarding alternatives to IT outsourcing; likewise, it allows discontinuing the services of another company whenever required. Similarly, after detailed discussions of pros and cons of every single option, the company may need to outsource any specific job.

Decision depends upon the preferences of the company, whether the company requires this activity in future or not or if company has specific benefits of keeping it in hand. Again the decision undertakes every single aspect involved in detail and the final decision is taken by considering the viability of the project from future point of view. If it looks necessary in time ahead then such an activity can be retained or vice versa. Similarly, there are always other options in hand, for instance, to perform any specific job in-house that was outsourced earlier.

Factors influencing decision making are two fold. First one is the presence or absence of competitive market i.e., there is no single bidder in the market who can compete a company for a specified job and the second one is the requirement of company, which means that at
times it becomes essential for an organization to go forth with one company because of its readily availability. Sometimes it is beneficial to hire the IT services from external company.

All IT outsourcing does not have a successful mature market prior to organizational outsourcing. However, strong risk management techniques are required to control the potential monopoly regarding IT outsourcing. Such policies are required which can discourage the monopolist companies and at the same time have good checks on the market. For an organization it is recommended to be fully prepared before going for outsourcing keeping in mind its cost structure as well as the profit of the supplier. Lack of proper management before outsourcing on one hand and ill preparation on other, has potential to harm an organization’s benefits.

The outsourcing decision tree provides a tool for logical thinking through the decision process. It involves considering the most feasible future strategies, plan and budgets for IT within organization, as can be done by any other outsourcing strategy. The decision tree leads the decision makers to adopt appropriate decision of outsourcing after analyzing various alternatives, as show in figure given below [11]
Figure 2.1 (decision tree)    Source [11]
3) Theoretical framework:

3.1 Important steps before decision making

After studying different research papers I came to the conclusion that there are five important steps before the decision is actually made. First four steps, such as identifying a company’s outsourcing needs, evaluating the core competence of the corporation, finding out the reasons for outsourcing and studying the risks involved, are the four internal steps. The selection of vendors is the fifth external step.

1st step

3.1.1 Identifying Your Company’s Outsourcing Needs:

The first step in the decision-making process is to identify your company’s needs. What is the basic need that is going to be addressed by this process? Once this question is earnestly answered, it then sets the preferred orientation which is to be followed during the whole course of decision making. This step includes three major activities:

I. Address the strategic interests and goals of the company:

The strategic plan, the information resources, and the company’s performance measures all must be considered when you are identifying needs and information. The company’s goals serve as a basis for determining project achievement. It basically serves as light in which all upcoming decision would be taken.

II. Specify the service required and identify the reasons to consider outsourcing:

Considerations include cost savings, enhanced service levels, the transition to a different technology platform, the need for increased technical or product knowledge and skills not present in the organization, or insufficient staff resources to accomplish specific tasks. This will further fine tune the process chosen as to make decisions.

III. Place the decision process in a neutral framework:

If the infrastructure of the whole process is influenced by any type of preconceived idea; it will not yield the desired results. Rather it will make the things worse and will plunge the entire process towards a failure. A sound analysis of options will be a strong support for management recommendations and decisions. [5]
2nd step

3.1.2 The core competence of the corporation:

Prahalad & Hamel define core competence as “the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies”. According to Rumelt (1994), the concept of corporate core competence can be operational if four key components are taken into consideration:

I) corporate span;
II) core competences support several products or business;
III) temporal dominance;
IV) products are but the momentary expression of a corporation’s core competency which are more stable and evolve slowly.[6]

Core competencies are the collective learning in the organization. They may have multiple faces and hence are demonstrated by various aspects of an organization. If core competencies are about matching technologies streams, it is also about the organization of work and value delivery. The core competency can also be explained as the communication, the involvement of the deep commitment to working across organizational border. A core competency is what makes the business of one company unique and exclusive and this is what defines the difference between different companies.

According to Prahalad and Hamel, there can be made a three-step test to identify the core competency of the company.

1. First of all, a core competence provides a potential access to a wide variety of markets.
2. Secondly, a core competence should make a noteworthy contribution to the supposed customer’s benefits of the end products.
3. Thirdly, a core competence should be difficult for competitors to imitate.

Organizations have many capabilities and competences, however, only a few of these are combined and integrated in such a way that they can be considered core competencies. If the competencies that do not produce or services that the customers do not see exceptionally different, they are probably not core. If the competencies are fleeting, easily imitated, or belong to a few individuals who could leave, then they are probably not core. This means that a company which is going to outsource any of IT, comes at stake and it is then exposed to plenty of losses all the time. It is essential to make the differentiation between core competencies, core products and end products. At the level of core competence the company’s-goal must be to build world leadership in a particular area. To sustain leadership position in their chosen competence area, they have to maximize their share of world manufacturing of core products. [9]

Organizations compete for customers, revenue and market share with products and services that meet customer’s needs. These factors drive an organization to ensure the standard quality in a unique way which can satisfy the customer and generate the revenue at the same time. Core competencies are the innovative combination of knowledge, special skills, proprietary technologies, information and unique operating methods that provide the product or the
service that customer’s value and want to buy. When a process driven structure, focus on customer, a powerful strategic force is unleashed. There is always a chance of improvement which certain organization tries to meet by improving its product to the maximum satisfaction of the customer and likewise proving its dominance in the market by innovative thinking. [3]

There is an obvious link between core competencies, core products and end products. The products are the physical essence of one or several core competencies. The core products are the component that actually creates the value of the end products. Thinking in these terms, forces companies to make distinction between the brand share it achieves in the end product markets and the manufacturing share it attains in a particular core product. Once the organization’s core competence has been identified, those processes that are non core should also be identified and classified. Some of these processes will be more crucial in their support of the core competence than others. [7]

Outsourcing any part of a business or activity basically implies an in-depth understanding of the core competencies on which the company intends to make its future competitive advantages. Outsourcing of IT infrastructure implies an in-depth understanding of what IT means to the organization and how it intends to use IT to make its competitive advantages. [11]

IT outsourcing can allow the management to focus on their core business and observe the assumption of flexibility generally connected with IT outsourcing. [10]

3rd step

3.1.3 Reason for IT outsourcing:

In today global market, competition is everything. Companies are in a state of competition with each other. So every field has become a specialty in today’s market. Companies have to concentrate on every single aspect of their holdings. But with hundreds and hundreds of jobs to be done within a company it becomes really close to impossible to concentrate on each and everything. So it is at this point that companies normally resort to an important phenomenon of today market strategies known as IT outsourcing. There are several different reasons for outsourcing. Some of which are given below.

3.1.3.1 Allowing an organization to concentrate on its core business:

Outsourcing enables an organization to focus its resources on the core functions without having to worry about the non core functions. Every company has limits on the resources that are accessible to it. It is always a test to ensure that the resources are being used in a way that adds the most value to an organization. [12]

Some IT operation consumes a lot of assets and management attention but they don’t make that important contribution towards the market competitive edge. By outsourcing the organization can easily focus on what it does best and what it needs to do tomorrow. IT professional that remains in the company can focus on strategic developments. This makes the IT department even more beneficial in terms of raising the profile of the company. By doing
so the emphasis could be made on the real issues instead of side issues which could be resolved using outsourcing thus increases the companies’ profitability. The focus is on interpreting information and exploiting IT systems rather than data processing and maintenance work. [2]

3.1.3.2 Financial advantages:

a) The most important reason of outsourcing is cost reduction which of course is the most vital thing in every kind of decision making. But this is not the sole reason of it. If the cost reduction is the sole or prime focus, chances of its success are scarce. There are three financial advantages of it which are.

a) Cost reduction:

Outsourcing supplier can decrease costs by economy of scale, by specializing in IT services and by research and training costs over huge staff. It also more efficient for a company to buy in technical training which is not used that often. [2]

By outsourcing company will not have to:
1) run payroll and benefit for the software part;
2) worry about a career path for the software engineers;
3) recruit software engineers;
4) provide training for software engineers.

This is the actual reason which makes it so interesting because by doing so the cost is decrease to the fraction of what it had been if outsourcing was not applied. It can also convert some of the company’s fixed costs into variable costs. [12]

This change is important for organization whose activities vary widely in volume from year to year or which face significant downsizing. The IT vendor can make the change much less painful to a downsizing organization. [20]

b) Predictable cost:

A company can attain more expected costs by negotiation and agreeing costs for specified service levels in an outsourcing contract. This also helps to get a patent understanding of business processes and to set up improvements.

c) Capital expenditure reduction:

IT Outsourcing can decrease the need to invest capital funds in IT activities. Instead of acquiring IT resources through capital funds, they are contracted for as an operational expenditure (variable cost). There is a huge competition all the times going on so IT activities can make more capital available for other core functions. [2]

3.1.3.3 Quality and service improvement:

By the method of IT outsourcing, a company can improve quality and its internal processes. Many companies tend to forget of disregard process and do not really believe in a quality-first approach which is very vital for a company’s success. These companies try to improve their
processes without collecting very important information. Processes can be improved only after large amount of information is available about the organization in a variety of situation. [12]

Companies outsourcing do so in expectation that their vendor will present a world-class service. Outsourcing suppliers can present a track record of achievements in other companies and can help recover the image of IT services by their common reputation. [2]

The service provider can also provide quality in output, requirements and change control and also teaching staff with higher level education and skills that is found in many IT departments. The service provider often drives improved quality in budgeting and planning. [21]

3.1.3.4 Access to technical expertise:

Another very significant factor in outsourcing IT is technical expertise or technical support. Despite the open systems its is now the IT companies which has to be the integrator, maintainer and supporter of these new and complex information technology systems, which are not dependent on any one most important equipment supplier, a state known as ‘vendor independent’. [12]

The IT outsourcing suppliers are capable to offer a lot of investment in technology, methodologies and people. The larger suppliers are able to offer coverage throughout the world. This is generally not possible for individual in house IT department. IT outsourcing provider can provide access to new skills and capabilities and quicker implementation of technological changes.

Outsourcing to a major supplier offers the following advantages:
  1) “Access to a new technology, tools and techniques”.
  2) Introduction of well structured methodologies, procedures and documentation.
  3) Access to more IT professional with wider variety of IT knowledge and experience.
  4) Application of better tools and techniques for forecasting cost of new result.
  5) IT service providers are able to handle negotiations with many suppliers efficiently and can use volume purchasing agreements.
  6) Can be used for implementation of most important technology to help minimize loss. [2]

A company may find that the expertise set of its internal staff is not enough for a given function. This may outcome in least improvements to the function in the future. This can be the “tip of an iceberg” for future’s problems and a company would have to face multi-faceted problems due to the lack of skill required to perform a job. A company can solve this problem by handing over the function to an outsourcing vendor who specializes in that function and is highly capable in its administration, using well-trained and experienced staff and the most current events and technological advances. This reason is usually given for making the decision to outsource those functions that need high skill levels, such as engineering and computer services. [5].

Using IT outsourcing method companies can easily access higher level of IT staff skills, IT application skills (such as SAP, JAVA and Oracle etc), or special customer industry skills. [20]
3.1.3.5 Assisting major reorganizations:

From time to time all organization, and IT departments, go through major reorganizations, which in any case will take a great deal of time and effort. IT Outsourcing can be used to help make the transition easier and efficient. Over the course of time they have developed and matured the methods which can help them offer IT services more profitably and efficiently. Firms can always tap into this expertise by outsourcing their IT activities and departments. The inside IT operation will be reorganized to maximize competence and integrate with the vendors organization. By doing this will require less management efforts and time reorganizing an inside IT department.

Outsourcing can also help with company mergers, divestments and acquisitions. Instead of tackling the difficulties of integrating different IT activities, or splitting off part of activities, all these challenges are left to the service provider. IT professional can get advantage too, as IT services provides can usually offer a wider variety of other opportunities in such instances. This is especially effective when organizations are looking for economies. [2]

3.1.3.6 Minimize risk and risk sharing:

Different types of risks are found to be associated with the investments an organization makes. Markets, competition, government regulations, financial conditions, and technologies all change at electronic speed today. Keeping up with these changes requires a major investment, and hence, it is very risky. In contrast, because vendors make investments on behalf of many clients, this increases the risk. [5]

Vendor present deals by which they agree to engage in an undertaking and guarantee a set of deliverables by a pre-defined date and at a fixed cost. If the vendor fails to provide by the due date, it will accept to take on penalties for every day the delivery is delayed, thus sharing the risk with the client. Vendors have become more aggressive lately and are provide value pricing that can be a main benefit which is still growing at the same time. [2]

3.1.3.7 Flexibility and control:

Increase in flexibility is associated to smaller and smoother organization, which is easier to assure that the decision-making process will become increasingly more efficient and fruitful. A useful outsourcing strategy may provide the flexibility not to engage in certain specific irreversible strategies. [9]

Some IT functions which internal team can’t perform properly on time, where a third party can actually perform these functions very quickly and efficiently. [26]

When a function experiences very large swings in the volume of work it handles, it may be easier to get rid of the fixed cost of an internal staff and move the function to a supplier that will be paid only for the work done. This converts a fixed cost into a variable cost— the price of the supplier’s services will change directly with the transaction volume it handles. Outsourcing provides the flexibility to be able react to unsure future. [5].

Delivery of products and solutions is directly proportional to the number of an organization’s employees who are able to contribute to the goal. Hiring additional employees is often not a good option, because it requires more cost and time. This can all be changed by IT
outsourcing – for product development, you no longer need to work within the constraints of your current team size but can quickly increase or decrease your capacity. So all this provides you with a lot of flexibility. [12]

IT services hiring gives you a lot of flexibility by enabling the company to increase or decrease for IT development and maintenance rapidly and efficiently without any time delay. This also helps in confronting the poor performance issue efficiently. All these actions if taken by an internal IT department will take a lot of time and efforts thus making the issues more difficult to resolve which otherwise can be dealt very easily and efficiently with IT outsourcing. [2]

3.1.3.8 Acquire Innovative Ideas:

Innovation is critical to competitive advantages. Who would have thought that Japanese economy, devastated by World War II, could have become one of the world’s leaders? The Japanese relied on quality and innovation. Refusing to change is just as risky as innovating. IT Outsourcing allows us to get innovative ideas about business from intelligent, well-meaning professional’s provider. And because it comes at low cost, it’s much less of a risk than some other sources of innovation. One should always bear in mind that innovative thinking is a major reason for which certain companies dominate the others in this competitive world. [3]

4th step

3.1.4 Risk of IT outsourcing:

Outsourcing decision and contractual planning of the type required by an IT outsourcing deal, do certainly involve risks. It does not mean that outsourcing is bad itself. It means that as in other risky business venture such as capital investment, new product development and IS/IT projects; risk assessment is very vital contributors to the success of IT outsourcing venture. [14]

IT outsourcing have important potential benefits but in some circumstances IT outsourcing entails risks these risks leads to undesirable result that are the opposite of the expected advantages of IT outsourcing. [15]

Before making the decision of IT outsourcing it is imperative for a manager to scrutinize that what would be the risks of outsourcing. Every one of the benefits carries with it one or more risks, which may be a single problem or multiple. The main IT outsourcing risks are related to security, control and reversibility. Before making any decision related to outsourcing a quantitative and qualitative “assessment” of the risks should be made which may be called as “Risk Analysis”. A carefully evaluated analysis would lead to the most logical and possible decision ready to be taken. The major risks related to IT outsourcing are described below.
3.1.4.1 Security and Confidentiality risks:

The outsourcing is very close one in which the vendor has access to all information and other resources that the organization usually regards as confidential. The potential risks include:

- “The increase prospective misuse of confidential information: for example, internal email and accounting data may be processed by the service provider; strategic software that gives a competitive advantage may be operated and maintained by the suppliers.” Thus the company’s strategically important assets become vulnerable.
- “Increase difficulties in defending other people’s confidentiality: for example, access to personnel files and customer data.” [2]

3.1.4.2 Loss of Control:

Being a company it normally happens that you’re going to lose control on the strategy and the mechanism of advancing towards a specific direction in the presence of the vendor who gradually controls each and everything related to their activity. This movement may result from perceptions about the different goals and attitudes of internal and external staff towards service, profits, and survival. Obviously much of the concern stems from customers’ doubts, which may be justified and it should be answered clearly, that the outsourcer does not have the similar level of commitment to meeting service requirements as an internal group. After all internal staff is more closely connected to other insiders and subscribes to the goals, task, and culture of the customer organization. However, this may be somewhat compensate by greater requirement, as personified in explicit service level agreements (SLAs), which always exist in arms-length relationships between customers and suppliers, and are hardly ever seen between internal departments or divisions.[13]

There is always a constant in outsourcing because the supplier of the day can become the competitor of tomorrow. The suppliers could also attempt to sell knowledge learnt during the outsourcing process to a competitor, which again can cause a great harm to an organization. Intellectual property rights and privacy- outsourcing can answer in some difficulties about irrelevant rights, such as who won the intellectual property rights and who can extend the information to a third party. [16]

There remains a possibility that the company may lose control of main capabilities. For example, “dimension such as quality conformance, delivery speed and delivery reliability are now, in part, within the processes and system of suppliers”. [9]

3.1.4.3 Lack of Expertise:

In IT outsourcing, it can often be difficult to find third parties with an established team of skillful professionals who are experienced and knowledgeable in a particular industry being serviced or in exact computer applications, programming languages, or system platforms. “Customers should beware of bait-and-switch tactics”. Vendors should provide lists of their workers along with their resumes as part of the outsourcer’s bid, and customers must insist that exact individuals be assigned to the project or service, otherwise the company’s business is always at stake. Similarly, the customer should retain the right to approve any substitutes. Another safety measure is to make sure that the applications or activities outsourced can, if necessary, be contracted out to a different provider. [13].
3.1.4.4 Loss of skills:

Companies change, and so does the core competence with the passage of time and it makes it difficult for companies to insource the activity again if they do not have the skill needed. Co-operation between different departments of the company can be decreased when some activities are outsourced. Co-operation usually yields process improvements and other quick solutions which might be missed due to an outsourcing. [16].

If company starts outsource some of its IT activities then it no longer employs the experts or specialists who once worked in those areas. So “how can the organization develop its IT strategy without access to the range of technical skills that it once possessed in-house?” The loss of skills through IT outsourcing can leave the company at risk to poor service and increase price. [2]

3.1.4.5 Hidden and Uncertain Costs:

There are two important reasons why definite costs may be unnoticed or hidden from the due industrious evaluation of service providers. First, some costs are very complex or almost impossible to quantify. Intangible costs might relate to such aspects as apparent quality of service. Other costs are easier to define, but the probability of their occurrence is very unsure. Reasonably good perceptions of the cost impact of failure of a service provider can be complete, but the probability that the outsourcer will fail is uncertain, mostly at the time of the evaluation. “In fact, if outsourcers were known to be having financial problems at the time of the evaluation, they should not have been included in the short list of finalists. However, even though an outsourcer is in financial suffering, it might continue to provide services. Additional funding (from a venture capitalist, for instance) could save the outsourcer or the provider might be acquired by another company, may be a competitor.”

In case of acquisition, services to the definite customer organization may or may not be continued, at the will of either the provider or the customer. Outsourcers are sometimes acquired by a competitor of one or more of their consumers, in which case the last might decide to stop the service at the first opportunity. Some shrewd customers include statements in their contract with the outsourcer to the outcome that either party can end the relationship, without termination payments, upon gaining by a third party of either customer or provider. [13]

3.1.4.6 Demotivated IT Staff:

A main concern for any company considering IT outsourcing has to be the impact on staff in the IT section. A badly planned IT outsourcing program may lead to lose of talent and skills within the company. IT expert may feel betrayed or unrewarding. [2]

The company faces the possible opposition of the IT staff, when they see outsourcing as a danger to their working position in a company. This sort of situation creates anxiety that may lead to a decrease in employee productivity. So IT outsourcing generates different staff-related problems. [17]
5th step

3.1.5 Selection of vendors

Selection of vendors in the process of decision making is of utmost importance in getting optimum benefit from the whole process. IT outsourcing has become a widely accepted practice and is continuously advancing. However, in spite of tremendous growth in this sector the organizations reporting success in this sector are very few. Therefore, vendors and the client organizations are under mounting pressure to demonstrate the worth of their outsourcing. One such way of improvement is the quality of the relationship between the organizations i.e., excellent mutual coordination between the client and vendor is stressed. The connections between the clients and their vendor frequently go beyond rules, agreements, and exceptions; they also depend on insubstantial factors that cannot be simply included into a contract. [18]

Finalization of a vendor to perform selective job requires a certain amount of understanding so as to make this process mutually beneficial and productive for client and vendor. Management needs to be vigilant in this regard and the decision makers (managers) should be able to make outsourcing decisions by pursuing a very stringent, well balanced and well organized strategy to leverage business performance. Manager should understand the IT service market, the strategies and capabilities of suppliers and all the pros and cons of a deal with a specific vendor. [11]

Selection of vendor to perform a specified job is always a challenging task due to a range of factors. Firstly, an understanding is always reached when both the parties conceive themselves as sufficient unlike to be fearful of any encroachment on one another’s core business. Secondly, the client-vendor competencies are sufficiently alike to be able to understand their common interests and opportunities. It is therefore always recommendable for prospective partners to have a deep look into the matter and identify grounds of mutual interest as well as look at the forces that separate them. While selecting a vendor there come a three fold criteria that needs to be understood before transgressing for any such deal i.e., Self-analysis, Chemistry and Compatibility.

Self-analysis provides for a comprehensive overhaul and evaluation of each other’s industry, the state, constraints and inclinations that shape them, a through analysis of the stability and finical circumstances of each partner. The ideal IT supplier would be one enjoying a top place as a full service company in computer sector. Key factors that shape such a company would be the focus on development of staff, a very high level of consciousness of the needs of the market and technological proficiency. An IT contractor is not viewed as just a provider of IT services and components, in fact, it is considered in terms of ties that are strategically beneficial and financially on competitive edge. The main objective of an outsourcing venture is not only to optimize the result of technical possibilities, but also to reinforce the customer’s capability and business advancement.

“Chemistry” refers to the tendency of the vendor to the prospective consumer of outsourcing in term of strategic orientation and thrust, management approach, culture, vision and reputation. Some companies are fearful while doing business with small vendors because of the fact that they might have to incorporate any structural changes which may cause discontinuity in service performance etc. Similarly, on the contrary, too large vendors can also
be regarded as potential threat for the on going business because of their immense bargaining power. Resemblance in size and in strategic orientation is actually a prerequisite for a mutually beneficial relationship. While finalizing a potential vendor it is necessary to take into consideration all formal, rational evaluation devices and analyses as well as informal, less rational and subtler perspectives.

Compatibility and congruency can be brought up into the business while taking into account comparable values and business philosophies. By compatibility it is not meant to abolish the difference nor dissimilarity. Therefore, these are always kept in the beginning in order to carry out work on them through constant communication and interactions. Difference in operating methodology, in authority, in decision-making and reporting practices should be made clear in order to augment visibility and get the clear understanding of what partners may be anticipating about each other. It is important to determine how quickly a potential partner’s decisions are made, how much documentation and reporting are required for a decision, and what authority goes with what position etc. These all factors together determine the compatibility of client-vendor bond.

The final decision in choice of supplier depends largely upon the previous interactions between the client and the vendor. The more the information about a certain supplier’s competency is achieved, is beneficial both for the client and the vendor. Knowledge gained about a certain vendor through earlier relations is likely to tip the balance in its favor. [10]

Successful IT outsourcing does not target the lowest price deals at any cost, on the contrary it is about finding the lowest price with the superior supplier under a fair contract in order to get sustainable solutions. Hence, it is a kind of two fold solutions by getting the best possible solution in the lowest possible price but without compromising on the predefined objectives. It is not a one-off economic transaction, but an ongoing association with economic and strategic consequences. If the company selects intelligently, these consequences can be fine, if not then they will be bad. [11]

The selection of IT vendor is a statically the most important phase in outsourcing process. Halvey and Melby (1996) recommended three steps that must be undertaken in selection of best IT outsourcing vendor. In “making the first move”, vendors are recognized through complete research. In the second step, the vendors’ “experiences are explored by talking to their clients and visiting their outsourcing sites”. The last step is a screening process, using the selection criteria narrow the lists to those are able of providing the required services. [24]
OUTSOURCING SELECTION PROCESS

Does the vendor have a good history in handling similar type firms in terms of size and type?

Yes

Does the vendor have the expertise, time, and commitment to support your company?

Yes

Does the vendor understand the job requirements and are these requirements easily discernible in the contract?

Yes

Is the vendor financially sound? Are there significant savings associated with the outsourcing decision?

Yes

Does the vendor contract allow for an increase or decrease in pay based on performance and meeting the schedule?

Yes

Is the vendor independent of equipment suppliers? Will the vendor keep the organization current in terms of equipment?

Yes

Does the vendor meet other specific organizational requirements? Is there an exit clause in the contract?

Yes

Consider eliminating the vendor from further consideration.

If you cannot find an appropriate vendor that meets the organization’s requirements, it is probably best to do the work in-house.

Compare the vendors and select an appropriate preferred vendor. Compare the preferred vendor against doing the job in-house.

Figure 4.1 (decision of selection vendor) sources [19]
3.1.5.2 Strategic sourcing model for decision making of selection vendors

3.1.5.2.1 Willcocks Frameworks:

The Willcocks Frameworks, suggested by Willcocks, Feeny and Islie (1997). These frameworks are a set of empirically-derived frameworks, mainly focused on critical factors, which are designed for use as tools in a variety of outsourcing decision making processes. It is further divided on three frameworks which are described as follow:

I) Business Matrix:

The Business Matrix is a framework which allows for investigation of a function’s contribution to business operations beside its contribution to the company’s business positioning. Hence this framework is doing the thorough evaluation of different service of a company by comparing their strategic importance and their roll in overall growth of the company. Some analysts propose that “commodity” functions (traditional examples such as payroll) are suitable candidates for outsourcing while “differentiator” functions must be retained in-house. However, it is important to note that “commodity” and “differentiator” functions may differ for individual companies.

<table>
<thead>
<tr>
<th>Critical Contribution to business operations</th>
<th>Selecting IT outsourcing candidates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Useful</td>
<td>Best Source</td>
</tr>
<tr>
<td>Commodity Contribution to competitive or business positioning</td>
<td>Best Source</td>
</tr>
</tbody>
</table>

Figure 4.2 (business matrix) source [1]
II) Economic Matrix

The Economic Matrix is a framework which allows for analysis of a function’s in-house economies of scale against the standard of managerial practices. It is assumed that external service providers can decrease the information technology (IT) costs through their inherent economies of scale which the internal IT departments are not capable to achieve. Contrary to this, several medium to large companies can still manage to achieve considerable economies of scale, which suggests that the key to external service providers’ continued capability to underbid internal IT costs lies only in effective managerial practices which internal IT departments are unable to perform. It requires the efficient use of managerial skills to control the company’s budget within the anticipated expenditure cost.

III) Technical Matrix

The Technical Matrix is a framework which allows for analysis of the company’s technology development against its level of IT integration. Technology development refers to the degree to which the company is recognizable with the IT technologies utilized. This means that a company is said to be technologically mature if the use of established technology of it sector is commence in company’s environment but if well established software and technology is alien to the company’s environment, company is believe to be immature. High technology maturity implies well-established use of common technology which facilitates the company’s ability to clearly and exactly define their requirements for outsourcing operations. Low technology maturity, on the other hand, implies complications as the company would be not capable to evaluate the external service providers’ performance properly without having the corresponding knowledge in the significant areas. These technologically immature organizations are not capable of evaluating the vendors’ services properly. They usually try to fit the models which have yielded good results for any other company but such models do not work for all & hence a failure is the ultimate result. The degree of IT integration refers to the degree to which IT functions are integrated into business processes, such as manufacturing. This intern implies that how much is the coherent use of IT in different sectors of company, whether it is fruitful or not. This is why a much composite & integrated approach is always appreciated in the IT business. A low degree of IT integration implies that the IT functions can be separated from business processes and handed over to external service providers, which hence facilities the use of outsourcing. [1]
4 Empirical Data Presentation:

The questionnaire was sent to several companies of Sweden and Pakistan. Five Swedish companies and seven Pakistani companies replied. Out of these one Swedish and two Pakistani resort to IT outsourcing. However, the process of gathering information from the companies proved to be a tough task, because most of the organizations consider sharing the data a breach in their confidentiality.

Brief summary of responsive companies:

4.1 Swedish Company:

4.1.1 Saab Aerotech:

Saab Aerotech has a unique competence in aeronautics and develops modern fighter aircraft. Saab Aerotech also serves as a supplier of subsystems and aero structure to Boeing and Airbus.

4.2 Pakistani Companies:

4.2.1. Pakistan Petroleum Limited:

Pakistan Petroleum Limited (PPL) is a leading Exploration and Production (E&P) Oil Company in Pakistan. It's business in this sector dates back to half a century since its inception in 1950s. Pakistan Petroleum limited (PPL) is an exploration and production company formed with the name of Burma Shell which later on converted into Pakistan Petroleum Limited (PPL) in 1952. Currently, the company holds 15 exploration licenses in all parts of the country. Moreover, it is expanding its horizon by getting involved in oil business beyond its boundaries. Company owns the largest gas field of Pakistan namely Sui, which has become synonymous for natural gas in Pakistan. PPL is a leading explorer and producer of oil and gas in the country. Moreover, it is planning to have a major paradigm shift by exploiting oil and gas resources beyond the country’s borders.

4.2.2. Mari Gas Company Limited:

Mari Gas Company Limited (MGCL) is an Exploration and Production Company that started its business in 1960. Currently MGCL is a leading exploration company of Pakistan. The company is producing oil and gas from all across the country. Mari Gas Company is an Exploration & Production Company and is actively involved in exploiting the untapped natural resources of Pakistan. MGCL is one of the largest companies in national sector. Currently the company contributes 15% of the total hydrocarbon production of the country.
4.3 Saab AeroTech:

Saab AeroTech has been engaged in IT outsourcing for the last 10 years. The main outsourced IT activities are Software development and Maintenance of IT systems. The major reasons that compel Saab AeroTech to make the decision of IT outsourcing are “Enabling organization to focus on its core business and financial advantages”.

The decision makers of IT outsourcing are management personnel on company level and the process of decision of IT outsourcing takes around six months. The company make the selection of IT service suppliers on the basis of their qualification. They select those suppliers who completely understand their needs. They look for a full supplier who can support both infrastructure and applications. Price and other terms and conditions are also consider while making the decision of selection the suppliers.

The success rate of IT outsourcing of Saab AeroTech is very high. Company achieves its expected goals from IT outsourcing, its success rate is 80% to 99%. In future IT outsourcing will enable the company to share the risks and control the cost.

<table>
<thead>
<tr>
<th>Doing IT Outsourcing</th>
<th>Main activities of IT outsourcing</th>
<th>Primary reason of IT outsourcing</th>
<th>Selection of IT Suppliers</th>
<th>Decision makers and decision time</th>
<th>Future effect of IT outsourcing</th>
<th>Success rate of IT outsourcing</th>
</tr>
</thead>
<tbody>
<tr>
<td>For last 10 year</td>
<td>Software development and Maintenance of IT systems</td>
<td>Enabling organization to focus on its core business and financial advantages.</td>
<td>Selection based on their qualification</td>
<td>Management team on company level. Decision time is 6 month</td>
<td>Share risks and control the cost</td>
<td>80 % to 99%</td>
</tr>
</tbody>
</table>
4.4 Pakistan Petroleum Limited (PPL)

Pakistan Petroleum Limited (PPL) is outsourcing IT activities for last 5 years. Software development and Maintenance of IT systems are the main IT activities which PPL is outsourcing. The main reasons for making decision of IT outsourcing are gain access to new technology and enable the company to focus on its core business.

In PPL, the people responsible for making decision of IT outsourcing comprise of a committee in IT Department headed by top management. A decision regarding IT outsourcing may take up two month, however in case of any urgency the process gets expedited and may be complete in span of one month. The basic criteria for selecting IT service supplier are that, First of all, bids are invited from the selective competent vendors. Once, the bids are reached, and then they are set to technical and financial evaluation. The most appropriate vendor is selected on the basis of technical competency and financial congruency.

The main problem that PPL are facing is lack of availability of potential vendors, thus frequently the project goes to a minimum number of IT Vendors again and again without provoking any healthy competition between such vendors, which in turn becomes difficult for a company when cost factor is undertaken.

The success rate of PPL is lower as compare to Aero SaabTech. The success rate of PPL is 51% to 75% from IT outsourcing. In future IT outsourcing will help PPL to increase the efficiency and reduce the labor cost.

Table 4.2: PPL IT outsourcing

<table>
<thead>
<tr>
<th>Doing IT Outsourcing</th>
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<th>Primary reason of IT outsourcing</th>
<th>Selection of IT Suppliers</th>
<th>Decision makers and decision time</th>
<th>Future effect of IT outsourcing</th>
<th>Success rate of IT outsourcing</th>
<th>Risk from IT Outsourcing</th>
</tr>
</thead>
<tbody>
<tr>
<td>For last 3 to 5 year</td>
<td>Software development and Maintenance of IT systems</td>
<td>Enabling organization to focus on its core business and gain access to new technology</td>
<td>Selection based on their technical competence and financial congruency</td>
<td>Comprise of a committee in IT Department headed by top management</td>
<td>Increase the efficiency and reduce the labor cost.</td>
<td>51% to 75%</td>
<td>Lack of availability of potential vendors</td>
</tr>
</tbody>
</table>
4.5 Mari Gas Company Limited (MGCL)

Mari Gas Company Limited (MGCL) is a leading exploration company of Pakistan. MGCL is involved in IT outsourcing for last three to five years. Testing of IT systems and maintenance of IT system are the main activities which MGCL is outsourcing from service suppliers. The primary reason for IT outsourcing are enable the company to focus on core business and gain access to new technology.

Higher Management, mostly the General Managers are the decision maker of IT outsourcing. It takes two to three weeks usually to take decisions. Mari Gas Company Limited outsources a few of the services of IT. And thus the supplier is decided according to the nature of problem in hand.

The main problem MGCL are facing from IT outsourcing is Lack of competition in the market for a selected job. MGCL is facing problem to find skillful suppliers for providing required IT services when company need.

The success rate of MGCL is same as that of PPL. MGCL success rate from IT outsourcing is 51% to 75%. In future IT outsourcing will enable MGCL to increase their efficiency.

Table 4.3: MGCL IT outsourcing

<table>
<thead>
<tr>
<th>Doing IT Outsourcing</th>
<th>Main activities of IT outsourcing.</th>
<th>Primary reason of IT outsourcing</th>
<th>Selection of IT Suppliers</th>
<th>Decision makers and decision time</th>
<th>Future effect of IT outsourcing</th>
<th>Success rate of IT outsourcing</th>
<th>Risk from IT Outsourcing</th>
</tr>
</thead>
<tbody>
<tr>
<td>For last 3 to 5 years</td>
<td>Testing of IT systems and Maintenance of IT systems</td>
<td>Enabling organization to focus on its core business and gain access to new technology</td>
<td>Selection based according to the nature of problem in IT sector.</td>
<td>Higher management mostly General Mangers</td>
<td>Increase their efficiency</td>
<td>51% to 75%</td>
<td>Lack of competition in the market for selected job</td>
</tr>
</tbody>
</table>
5 Analysis of empirical data with theoretical data:

The empirical data obtained from the Swedish company and Pakistani companies reveal different reasons for companies to take the decision of IT outsourcing. All three companies mentioning this, leads us to the assumption that the primary reason for this decision is to “focus on the company’s core business”. The theoretical data shows that the first researcher group, including Robin Sood, Lynda M. Applegate and Elizabeth Sparrow, mention that the primary reason for IT outsourcing is to gain financial advantages such as reduction of the operating cost, the capital expenditure and the labor cost. The second researcher group which included Elizabeth Sparrow and Robin Sood, mention focusing on the company’s core business as the primary reason, while the third group of researchers (Brown, Douglas, Wilson, Scott and Sparrow) mentions that the main motive for IT outsourcing is to obtain access to technical expertise.

![Figure 5.1 (Analysis of empirical data with theoretical data)](image-url)
There are different kinds of risks involved with IT outsourcing. According to the empirical data collection results, the main risk that companies face from IT outsourcing is finding the expert suppliers, which can fulfill all respective requirements. Different researches of the matter also provide their explanation of the risks. According to Elizabeth Sparrow in particular (research group 1), the major ones are Security and Confidentiality risks.

The researcher group 2 includes Axelrod and Warren and mentions that lack of expertise is the primary risk that IT outsourcing bears. The researcher group 3 (Annette Brannemo, Johan Falk and Jonas Hagman) consider loss of control to be the major threat.

Figure 5.2 (Analysis of empirical data with theoretical data)
6. Conclusions

On the basis of the information collected from the three companies mentioned above, the following conclusion can be made. A successful and effective IT outsource decision requires clear understanding of all necessary steps that can affect IT outsourcing. According to the studied literature and gathered empirical data, this decision is management’s responsibility. Therefore companies’ management must be aware of all imperative steps before taking decisions.

The empirical results show that the primary reason for companies to take the decision of IT outsourcing is to focus on its core business. I have come to the conclusion that the main risk involved with IT outsourcing is finding skilled and expert service providers which fulfill all the requirements.

6.1 Recommendations

A detailed analysis of the options, risks and benefits of IT outsourcing should be carried out before the relevant decision is actually taken. Saab AeroTech’s management, for example, spends up to six month on the study, which eventually results in 80-90% success rate of the company’s IT Outsourcing. Complete evaluation of vendor’s knowledge, skills, technical expertise, past experience and external company is carried out before the selection of vendors.
References:


8. The process of making the outsourcing decision. Wasz, J.S.; Laribee, J.F.


28. Saab AeroTech. Arboga (Sweden), Per Lönn

29. Pakistan Petroleum Limited. Karachi (Pakistan), Muhammad Tarique (computer Application Engineer)

30. Mari Gas Company Limited. Islamabad (Pakistan), Faryal Abbas( IT Manager)

31. www.gartner.com


34. www.cica.ca/itac
Appendix:

1. General information

<table>
<thead>
<tr>
<th>1.1. Address</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Company/ R &amp; D Institute</td>
<td></td>
</tr>
<tr>
<td>Company/ Institute</td>
<td></td>
</tr>
<tr>
<td>Street</td>
<td></td>
</tr>
<tr>
<td>Zip Code/ Town</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td></td>
</tr>
<tr>
<td>Contact Person</td>
<td></td>
</tr>
<tr>
<td>First Name, Surname, Title</td>
<td></td>
</tr>
</tbody>
</table>

Q#2: Please give us a brief profile of your company (the nature of your business/product line etc.)

Q#3: Is your company engaged in IT outsourcing?

| Yes |  |
| NO |  |

Note: Terminate if no.
Q#4: How long has your company been engaged in IT outsourcing?

<table>
<thead>
<tr>
<th>Duration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Just Started</td>
<td>□</td>
</tr>
<tr>
<td>1 to 2 years</td>
<td>□</td>
</tr>
<tr>
<td>2 to 5 years</td>
<td>□</td>
</tr>
<tr>
<td>5 to 10 years</td>
<td>□</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>□</td>
</tr>
</tbody>
</table>

Question #5: What kind of activities do you outsource within IT?

<table>
<thead>
<tr>
<th>Activity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Software development</td>
<td>□</td>
</tr>
<tr>
<td>System analysis and design</td>
<td>□</td>
</tr>
<tr>
<td>Testing of IT systems</td>
<td>□</td>
</tr>
<tr>
<td>Maintenance of IT systems</td>
<td>□</td>
</tr>
<tr>
<td>Other ( )</td>
<td></td>
</tr>
</tbody>
</table>

Q#6: What are the primary reasons for resorting IT outsourcing?

<table>
<thead>
<tr>
<th>Reason</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gain access to new technology</td>
<td>□</td>
</tr>
<tr>
<td>Enabling organization to focus on its core business</td>
<td>□</td>
</tr>
<tr>
<td>Financial advantages</td>
<td>□</td>
</tr>
<tr>
<td>Lack of particular technology</td>
<td>□</td>
</tr>
<tr>
<td>Lack of skilled persons</td>
<td>□</td>
</tr>
<tr>
<td>Other ( )</td>
<td></td>
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</tbody>
</table>

Q#7: What are the basic criteria for selection of a supplier?

Q#8: What is the significance of following factors while making decision of IT outsourcing? (Rate form 1 = least important, to 5 extremely important).
Question # 9: Does IT Outsourcing fulfill your company’s expected goals?

![Choices for Question #9]

Question # 10: Who are the decision makers in the outsourcing process and how long does it take for a decision to be made?

Question # 11: What are the problems that company faces in IT outsourcing?

Question # 12: What will be the future effect of IT outsourcing on company?

![Choices for Question #12]