Exploratory Study on IT Outsourcing

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Abstract: - The “Kodak Effect” has motivated many organizations to involve in IT outsourcing. Entering its maturity level, still IT outsourcing is not without problems. Therefore, there have been many researches that suggest the guidelines of managing IT outsourcing activities. Still, there is a need to explore what is currently being a practice so as to identify the weaknesses and vulnerabilities. In order to achieve the objective, exploratory, qualitative research method was used in this study. Nine organizations were selected as a sample. The result of the research shows that even though there are proper guidelines available, some of the organizations omit some important steps. As a consequence, some organizations encountered difficulty in managing their projects. For future works, the weaknesses and vulnerability of current practices will then be enhanced and a framework for managing IT Outsourcing will then be proposed.


1 Introduction

IT outsourcing industry is booming after Kodak energized the marketplace by outsourcing major components of its Information System functions to IBM [1]. It leads to bandwagon effect where more organizations source out their IT functions. In Malaysia, the pioneer of IT outsourcing is Bumiputra-Commerce Bank (BCB) (recently known as CIMB) that took its step to source out its IT function to Electronic Data System (EDS) after Central Bank of Malaysia (Bank Negara) has been pushing local banks to seek out outsourcing partners to handle non-critical functions of the business [4]. Malaysian’s government has actively involved and support the idea of IT outsourcing as it is one of the way for the government to operate more effectively [7] thus encouraging organizations to involve in IT outsourcing.

Despite the growing trend in IT outsourcing, it however comes together with risk. Many organizations failed to succeed in their IT outsourcing arrangements and been trying to hide their failure [2]. In Malaysia for example, only 9.2% projects that engaged in IT development succeeded [6]. Nevertheless, the trends of IT outsourcing would continue [3]. Therefore, it is important to explore how organizations manage their IT outsourcing activities to determine what actions leads to success and failure. This paper will contributes to better insight of how organizations should do and should not do while involving in IT outsourcing activities.

In IT outsourcing, the most common questions arise include what functions being outsourced and why outsource that function. Exceeding these boundaries, this paper will explores what organizations did to ensure their IT outsourcing process run smoothly, how do they did it and who are responsible. Since the most appropriate method to explore the questions is in-depth analysis, exploratory method is applied. As a mean to achieve the objective, 9 organizations were then selected to be interviewed.

This paper first presents introduction to IT outsourcing and methodology used. The findings are then discussed and presented.

2 IT Outsourcing

IT outsourcing can be defined as the practice of commissioning part or all of an organization’s IT assets, people, and/or activities to one or more external providers. Some of the activities being outsourced include system planning, application development, operation and maintenance, facilities management and so on [8].

In Malaysia, the functions most commonly outsourced are application system development, followed by ICT infrastructure, ICT application maintenance and support, website hosting, ICT strategic planning and security policy and standards development [11].

It is important to start IT outsourcing with research, choosing the right service provider, manages the contract and performs on-going
monitoring [9,10,11,12]. Through the research, organizations are able to prepare themselves before entering the outsourcing environment. Choosing the right service provider will improve the quality of services. The process of managing the contract will ensure both parties benefited from the agreement and performing on-going monitoring will ensure organizations achieve their goals and objective.

There is a lot of research done to identify what and why questions in IT outsourcing. Yet, practices that lead to success or failure cannot simply derive from those questions. Therefore, this paper used exploratory method to gain the insight of how organizations perform their IT outsourcing activities and determine what actions that leads to success or failure.

3 Methodology
The objective of the interviews is to explore how organizations in Malaysia conduct their IT outsourcing activities. Such explorations can help others to understand the do' and don’ts while managing their IT outsourcing activities.

The interviews were conducted with 9 organizations. To accomplish the objective, the organizations were asked questions regarding how they performed their initial analysis, how the tender was evaluated, the process of managing the contract and what were done to ensure their service providers deliver what has been promised.

4 Findings and Discussions
From the study, the following findings are presented and discussed. Section one presents the organizational background and section two discussed the IT outsourcing practice.

4.1 Organizational Background
To further identify and to get better insights regarding IT outsourcing practices, 9 organizations were interviewed. The organizations involved in the survey include private and public sector with one multinational company. The managers are in range of 26 -55 years old and have experience in handling IT outsourcing projects. From 9 of the managers, 3 are women. To avoid bias and to protect anonymity, from here onwards, these organizations will be referred to Organization A – Organization H and the managers interviewed will be referred to as manager.

4.2. IT Outsourcing Practices
Based on interview sessions that have been conducted with 9 organizations, analysis as below is reported.

4.2.1 Initial Review.
In current environment, the ideas to develop, upgrade or enhance certain functions come from two approaches; top bottom and bottom up approach. For bottom up approach, the requirements come from end user and IT department itself. The idea will be proposed to top management for approval. If the top management approves the project, the project will proceed. For top bottom approach, the requirement comes from the ministry and top management.

For both approaches, a technical committee will be created that involves IT officer, stakeholder, 2 expertises from subject matter expert and financial officer. The IT officer will discuss detail requirement and advises technical terms to ensure the objective and goals of the project can be achieved.

It is important to set up realistic objectives and goals. In order to ensure the goals and objectives are achievable and realistic, the IT team will conduct a detailed study and compare the project with the previous benchmark projects. Organization A uses the SMART criteria (Specific, Measurable, Attainable, Relevant and Timely) to ensure the goals and objectives are achievable and realistic.

Based on the goals and objective, they will determine whether they should outsource the function or develop it using in-house expertise. Based on the practices, many organizations did not perform detailed Cost and Benefit (CBA) analysis. Their reasons of not doing so are because it is time consuming and they have no expertise to do so. CBA are only conducted in brief to estimate the cost that will be involved in certain projects. Based from the objectives and the CBA, the organizations will decide whether to outsource the function or to develop it in-house. Most of the organizations claimed that the cost of performing the function by outsourcing it to other party is higher than performing the function in-house. However, due to some reasons and the benefit outweigh the cost, the project is continued. Organization A however, performed detail CBA. For them, CBA is a standard procedure in order to ensure viability and accountability. The projects will not be continued if the cost outweighs the benefit. Therefore, the team that suggested the project must come up with other alternatives.

All the organizations mentioned that the reasons
to outsource particular functions are because there is no capability and expertise to do it in-house besides time constraint especially for the projects that come from top bottom approach that requires the projects to be finished as soon as possible. Organization E also claims that their infrastructure is not up-to-date. Therefore, it might cost more to buy new equipment and hire new staff as compared to outsource it to third party. Organization I explains that they only outsourced a particular function if they have high budget allocation. With low budget allocation, they will only consider developing it in-house.

Before outsourcing certain functions, another committee will be created. The committee involving IT officer and the user will discuss upon terms of reference. All the specifications and requirements come from the user. The IT officer will be in charge of suggesting and controlling the technical parts. All the organizations claimed that the function has been fully understood before it is delivered to the third party.

All organizations agree that the usage of multi-vendor depends on the complexity of the projects. For Organization A, it only uses single vendor for their projects to avoid the issues of incompatibility and compromise on confidentiality of data. For other organizations, the usage of multi-vendor will reduce the dependency on one party thus reduce risk in IT outsourcing. Organization C added that the usage of multi-vendor will allow other service provider to serve as a back up. However, they agree that it is harder to manage multi-vendor as more works are required to ensure coordination and integration of the project. To reduce the risks that might derive by the usage of multi-vendor, the organizations agreed it should be decided early so that early planning can be done thus they can meet and plan their work together.

All of the organizations agree that it is important to establish a good relationship with the service provider. For them, good relationship will allow flexible communication and ease the process of information and technology transfer. Good relationship helps to provide effective and efficient technical support to ensure daily operations are running smoothly even when there is IT service breakdown. Based on personal experience, organization E believes that organizations and service provider must work very closely so that any problems can be solved early. Bad relationship will always lead to dispute. However, organization B has a different perception. For them, the relationship should be at par. The organization must establish good relationship with the service provider but at the same time cannot be so close to ensure any confidential and secret information are not released to the service provider.

From the findings, it can be concluded that organizations performed initial research before they engaged in IT outsourcing activities. The initial research includes the process of determining the goals and objectives, the cost involved, terms and conditions, the usage of multivendor and the type of relationship they would established with their service providers. The organizations will then used the information captured from the initial review phase and used it to prepare the tender. Once the proposal is received, it will be evaluated against the organizations needs and requirements.

4.2.2 Tender Evaluation.

Once the proposals are received, a team from administration department will be responsible to open the proposals and prepare it for blind review. The technical committee created earlier will be responsible in conducting the technical review. Organizations also create financial committee team that will be responsible in conducting the financial review.

From the observation, two methods have been applied by the organizations in order to come up with short-listed candidates. The first method is to perform three phases review. The first phase is to review the completeness of the mandatory documents and failure to do so will lead to rejection. The second phase is to review technical compliant. Organizations that did not meet the technical terms will be eliminated. The remaining of the service provider will be evaluated based on weighting method.

The second method is the financial committee prepare for acceptable price range. Any service provider that suggests lower or higher cost than the calculated price range will be eliminated.

From both methods, the remaining of the service provider will go through a thorough selection process. Among the things considered during the selection process include:

i. Service provider’s experience with the function to be outsourced. Lack of experience may lead to late recovery and delay is something that cannot be tolerated especially for international organizations. However, organization B mentioned that a service provider’s experience depends on the project. A service provider with experience is only considered important for critical projects that involve costly and sensitive issue.

ii. Service provider’ reputation and performance. All organizations will select a service provider with
good reputation and performance. Based on previous records, any former service provider that failed to perform in previous projects will also be eliminated. Organization B added that this factor will become more important if the requirements come from the ministry.

iii. The personnel assigned. Some organizations pay attention on the personnel assigned for the job. They have the right to request personnel with experience as inexperience personnel might cause delay. However, according to Organization B, they normally do not pay much attention to the personnel as it is time consuming.

iv. Service provider’s access and ability to adopt to latest technology. All the organizations agree that it is important for the service provider to have access and ability to adapt to latest technology. This is to ensure the product is compatible with the ever-evolving technology. Organization C added that a service provider’s initiative to adopt to latest technology will allow the organizations to be ahead of time.

v. Service provider’s practices of standards, policies and procedures. Almost all organizations will select a service provider that practices good standards, policies and procedures. According to organization A, any certification would provide comfort of an organized approach towards work. Organization E added that the lack of certification among service providers is one of the factors that lead to project failure. Organization I however did not prioritize this factor because they feel that their projects are not complex and does not require expert to help them.

vi. Service provider’s practices of security. All organizations ensure their future provider practices good security standard to protect the confidentiality of the data. The service provider will be asked to sign an agreement as a part of security measure.

vii. Business Continuity plan. Half of the organizations required the service provider to be responsible for Business Resumption Plan. These organizations mentioned that this element should be stated in the contract. Organization A added that this element is important because it has a significant impact on the organization’s daily operations especially when IT services are interrupted and need to recover fast. For Organization E, this element has not yet been practiced but in the planning to be implemented and included in the contract.

viii. Financial stability. Organizations consider the service provider’s financial stability. Organization E added that financial stability is the biggest risk in dealing with service providers. It is important to check their financial stability to prevent future problems such as not having sufficient financial capabilities and the possibility of the service provider to run out of business.

ix. Service provider usage of subcontractors. From the findings, a service provider’s usage of subcontractors was not considered as important matter. This is because the organizations claimed that they should not interfere with that matter. Organization I added that it does not matter how they do it or with whom they do it; the most important thing is they get the expected results. Contradict from the literature, the involvement of subcontractors will increase risks especially when organizations were not informed. The organizations were then asked about the security concerns with subcontractors and the probability of them revealing classified information because no security measure were undertook between organizations and subcontractors. Realizing the fact, some of the organizations agreed that they should at least know with whom they are dealing with. Organization I continued that this matter will be taken seriously in the future. Sadly, some organizations still with their decision.

x. Site visit. For organizations A and C, site visit is a basic verification exercise to know their service providers’ working environment. Organization E mentioned site visit as best practices and through it, the organizations can bring the useful knowledge into their organizations. For other organizations, site visit practices depend on the projects and will only be performed if the project is large and the organizations have never worked with that particular service provider before. For most of them, performing site visit will increase their trustworthiness towards their prospect service provider.

Other criteria being considered in selecting service provider includes response time towards any queries and the need to do proof of concept especially for new technology. Some organizations requested the prospect service providers to come up with the prototype which will then be evaluated.

After the review is done, the list of short-listed candidates from technical evaluation committee will be compared with the list of short-listed candidates from financial committee. From the analysis, the list of the short-listed candidate will be forwarded to the top management or the ministry. From the observation, most of the time, service provider that proposed the lowest cost will be selected due to monetary constraint. According to most of the organizations, funds is their biggest constraint to get the best service provider as some
4.2.3 Contract Management.

After the letter of intent is sent to the service provider, contract negotiation will take place. From the analysis, different organizations appointed different officer to perform the contract negotiation. Therefore, it can be concluded that the personnel involved in contract management phase are from top management, Purchasing, Finance and Treasury, Internal Audit, Human Resources, IT officer, officer in charge, user and legal adviser.

The contract negotiation is conducted to discuss on the terms and conditions, the need to reduce pricing as much as possible as well as scope coverage. They also discussed the payment mechanism. From the findings, the payment mechanisms include the payment based on percentages of the total contract amount after service provider completes pre-defined milestones and single payment at the completion of the project.

Some organizations prepare their own contract. Organization B for example designed template contract to ease and minimize the process of amendment. For the others, they use contract prepared by service provider. They, on the other hand mentioned that they have no problem dealing with the contract prepared by the service provider except for the first timer service providers. All organizations use internal legal advisor to help review the contract to minimize legal/statutory risk and to avoid unfavorable terms and clauses.

Once both parties agree upon the matters, a letter of award will be sent to a service provider as a sign that it has been officially selected as their service provider. Contract will be signed and the service providers will start their job and organizations will monitor their work.

From the analysis, the organizations claimed that the hardest parts in contract management are as below:
1. to ensure the projects follow the scheduled progress timeline and scope,
2. to negotiate the price and how payment will be made,
3. to calculate penalty,
4. to define service level.
5. to meet the legal advisor requirements, and
6. to implement what is written in the contract.

In summary, during contract management phase, the organizations negotiate the terms and conditions, pricing mechanism and scope coverage. Claimed implementing what is written in the contract as the hardest part in the projects, organizations then monitor the work of their service provider to ensure that the requirements in the contract are met.

4.2.4 Project Roll-on.

After the contract is signed, the organizations will perform an on-going monitoring to ensure service provider delivers and performs accordingly. All organizations have a steering committee that is responsible in monitoring and reporting the progress of the service provider to their top management. Meetings will be held at least twice a month. During the meeting, organizations and the service provider will communicate to solve any issues.

Before the end product is delivered to the organizations, it must go through User Acceptance Test and Performance and Stress Test to measure the capability of the products. According to the organizations, once those tests are successfully completed, the project can be considered a success.

For some projects, a maintenance phase will take place. The same action will be performed to ensure the service provider comply with the agreements in the contract. For service providers that failed to perform, they will be punished according to the penalty clause stated in the contract. If problem still persist, their contract will be terminated. However, not many organizations enforce the penalty clause. They will discuss upon any problems until they get the respective results.

Based on the analysis, the termination process takes place if one of the following events occurs:
1. Contract comes to an end and project completed successfully.
2. Changes in requirement.
   During project roll-on, many organizations claimed that service providers that were selected based on lowest price failed to perform adequately. Therefore it is important to realize that the intention to save cost in the beginning of the projects might not be worth if the organizations have to bear the consequences at the end of the projects.

5 Conclusion
The exploration method used in this paper allows the exploration of current practices in IT outsourcing. Stressing on the how question, the study reveals that some organizations omit some important steps in IT outsourcing guidelines. The results show that some organizations did not conduct CBA thus limiting their ability to predict the cost of the projects as well as the pros and cons involving in IT outsourcing activities. During selection of service provider, many organizations decline their right to know their subcontractors. Claiming it should be the responsibility of their service provider, these organizations failed to realize the risk they are facing with.

Some organizations claimed that even though they have done thorough review of service provider’s background, monetary constrains lead to the choices of unsuitable service provider. This finding should influence other organizations not to pick their service provider based on lowest prices. This study reveals that when organizations made the selection based on lowest price, they encountered many problems.

Since the trends of IT outsourcing will grow, there is a need to explore current practices and dig out any weaknesses or vulnerability. In order to improve the practices, the framework for managing IT outsourcing should be developed to assist organizations in achieving success in IT outsourcing.

References: