ABSTRACT
Information and Technology Outsourcing (ITO), as defined by Willcocks et al., is the practice of sourcing all or part of an organization’s IT and IS functions along with its related services from an outside vendor. Due to the huge sum of money involved on each ITO contract, ITO managers were under pressure to successfully deliver what has been expected from the contract. This paper will focus on synthesizing ITO success factors from the current literatures to suggest a complete list of factors which influence the ITO success for the client organization. Based from the literatures, the following list of factors is proposed as the ITO key success factors: selective outsourcing, client core capabilities, relationship, ITO process, ITO configuration fit, supplier capabilities, ITO contract and stakeholder management. With a clear understanding on both the expectations and the success measurements, an ITO manager could use the proposed key success factors to enhance the success of his/her outsourcing ITO contract.

Keywords: Information Technology Outsourcing, Key Success Factor

Information and Technology Outsourcing (ITO), as defined by Willcocks et al.,[1], is the practice of sourcing all or part of an organization’s information technology (IT) and information system (IS) functions along with its related services from an outside vendor. Firstly recognized in 1963 when Blue Cross outsourced their data processing services to EDS (Hirschheim and Dibbern, 2002, cited from Gonzalez et al.,[2]), the practice of ITO has currently become a global trend which often involve a huge sum of money for each of its contract.

For example, EDS claimed that they have won at least three ITO contracts in April 2008 worth from US$74 million for six years to US$391 million for seven years as stated in EDS.[3].

As part of a business strategy, it is sensible that the client’s shareholders will demand a worthwhile return from their ITO investment. Thus, ITO managers were under pressure to successfully deliver what has been expected from the ITO contract.

Such pressure has emerged the need of knowledge in factors influencing the ITO success. Currently, only limited authors in the area managed to suggest a complete list of ITO success factors (e.g. Fisher et al.,[4]; Gonzalez et al.,[2]; and Gottschalk & Solli-Sther,[5]).

Other literatures choose to focus on discussing bits and pieces of the whole success factors. For example, Alborz et al.,[6] suggest the Quality-of-Relationship and Seddon & Cullen,[7] suggest the configuration fit as an ITO success factor.

Although their plausible arguments were supported by solid evidences, they did not neglect that their factor(s) are not the only factor(s) which influence the outsourcing success.

This paper will focus on synthesizing ITO success factors from the current literatures to suggest a complete list of factors which affect the ITO success for the client organization. Started with defining the ITO success, this paper will then discuss the ITO key success factors and lastly, conclude the findings.

ITO SUCCESS DEFINITION FROM THE CLIENT’S PERSPECTIVE

Success is a complex term to be defined and measured in ITO practice. Yet, it is necessary to confirm its definition before one could appropriately analyze factors which influence it.

The complexity in defining the ITO success emerged from the many stakeholders involved in each ITO contract and the many benefits might be sought from the ITO practice. Even within the same client organization, different stakeholder could have different expectations towards the ITO, thus, the ITO success could be perceived differently based on each stakeholder’s expectation and perception (Dibbern et al.,[8]).

Synthesizing from the literatures, it can be concluded that ITO success relates with the ITO expectations (Cullen et al.,[9]; Dibbern et al.,[8]) and satisfaction towards the ITO outcomes (Cullen et al.,[9]; Grover et al., 1996 cited from Gonzalez et al.,[2]; Seddon & Cullen,[7]). Therefore, this paper will define the ITO client’s success as the client’s satisfaction towards the fulfillment of their ITO expectations. Indeed, there is a possibility that non-expected benefits could also satisfy the client’s management. However, the client’s satisfaction on their primary expectations is considered as the most crucial requirement for an ITO to be defined as success.

Aligned with Cullen et al.,[9] argument, such definition requires a clear statement of the expected ITO outcomes before the success can be measured. Sequentially, the success should be measured against assessment criteria which are relevant to the client’s particular expectations. Cullen et al.[9] further added that the client’s expectations could vary over time thus the success measurement should also be altered accordingly.

ITO KEY SUCCESS FACTORS

This paper defines ITO key success factors as a list of manageable factors which could significantly influence the success of all ITO practice regardless the configuration. As
Table 1: ITO key success factors for the client organization.

<table>
<thead>
<tr>
<th>ITO Key Success Factor</th>
<th>Supporting Literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selective outsourcing</td>
<td>Dibbern et al., 2004; Fisher et al., 2008; Gottschalk &amp; Solli-Sther, 2005; Lacity &amp; Willcocks, 1998; Willcocks &amp; Lacity, 2006.</td>
</tr>
<tr>
<td>Client core capabilities</td>
<td>Dibbern et al., 2004; Fisher et al., 2008; Willcocks &amp; Feeny, 2006; Willcocks &amp; Lacity, 2006.</td>
</tr>
<tr>
<td>Relationship</td>
<td>Alborz et al., 2005; Dibbern et al., 2004; Fisher et al., 2008; Gonzalez et al., 2005; Goo &amp; Nam, 2007; Gottschalk &amp; Solli-Sther, 2005; Seddon &amp; Cullen, 2007; Willcocks &amp; Lacity, 2006.</td>
</tr>
<tr>
<td>ITO process</td>
<td>Cullen et al., 2006.</td>
</tr>
<tr>
<td>ITO Configuration fit</td>
<td>Fisher et al., 2008; Gonzalez et al., 2005; Seddon &amp; Cullen, 2007; Willcocks &amp; Lacity, 2006.</td>
</tr>
<tr>
<td>Supplier capabilities</td>
<td>Dibbern et al., 2004; Fisher et al., 2008; Gonzalez et al., 2005; Willcocks &amp; Lacity, 2006.</td>
</tr>
<tr>
<td>ITO contract</td>
<td>Dibbern et al., 2004; Fisher et al., 2008; Gonzalez et al., 2005; Goo &amp; Nam, 2007; Gottschalk &amp; Solli-Sther, 2005; Lacity &amp; Willcocks, 1998; Willcocks &amp; Lacity, 2006.</td>
</tr>
<tr>
<td>Stakeholder management</td>
<td>Dibbern et al., 2004; Fisher et al., 2008; Gonzalez et al., 2005; Gottschalk &amp; Solli-Sther, 2005; Willcocks &amp; Lacity, 2006.</td>
</tr>
</tbody>
</table>

Table 2: Findings on sourcing decisions and successes [12]

<table>
<thead>
<tr>
<th>Sourcing Decision</th>
<th>Cost Expectations Realized</th>
<th>Cost Expectations Not Realized</th>
<th>% of Perceived Success</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Outsourcing</td>
<td>2</td>
<td>5</td>
<td>29%</td>
</tr>
<tr>
<td>Total Insourcing</td>
<td>10</td>
<td>5</td>
<td>67%</td>
</tr>
<tr>
<td>Selective Outsourcing</td>
<td>22</td>
<td>4</td>
<td>85%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>34</td>
<td>14</td>
<td>71%</td>
</tr>
</tbody>
</table>

Suggested by Cullen et al.[10], each ITO possesses a particular configuration attributes and each configuration requires a specific treatment to success. Factors which are not influencing all types of ITO configuration will not be considered as ITO key success factors. For example, flexibility is a crucial factor for an ITO with a fee-for-service pricing framework or an arm-length relationship which often pursue a cost reduction. However, flexibility is not sensible for ITO with equity relationship where both parties are engaged in a long term relationship through an equally owned business entity (Willcocks & Lacity,[11]). Therefore flexibility will not be considered as an ITO key success factor.

Furthermore, factors which reflect the ITO expectations will not be counted as key success factors. For example, cost-saving is an ITO benefit which often pursued by ITO clients (Cullen et al.,[9]; Gonzalez et al.,[2]; Lacity & Willcocks,[12]). Thus, stating that cost-saving is a factor influencing the ITO success in saving cost is considered as a "circular reasoning" or tautology (Neuman,[13]).

Based on the above principals, ITO success factors identified from current literatures will be synthesized. Findings on ITO success factors along with their supporting literatures are listed with no particular order on Table 1.

**Selective Outsourcing**

Selective outsourcing is the practice to source 20% - 80% of the IT budget to external vendor(s) (Lacity & Willcocks, [12]). By perceiving ITO success as achieving the cost expectation, Lacity & Willcocks research [12] on ITO practices in UK and USA indicates that organizations which decided to do selective outsourcing are more likely to be successful than other IT sourcing options (see Table 2). Although there is no significant percentage of success difference between the total in-sourcing success rate and the selective outsourcing success rate, there is a huge gap of success rate between the selective outsourcing and the total outsourcing. Thus, selective outsourcing is much more recommended than total outsourcing.

Aligned, with the previous argument, a case study by Fisher et al.[4] on Alpha’s (a large Australian telecommunication company) ITO practice also indicated that selective outsourcing could produce a better outcome compared to total outsourcing. During the first outsourcing wave, Alpha decided to outsource all of their IT functions and two third of their applications and business functionality. Such practice has resulted in Alpha losing their skilled staff, control and important IT knowledge and capability. Learning from the first wave experiences, Alpha decided to reduce the second wave outsourcing scope by back-sourcing some of the previously outsourced functions.

**Client Core Capabilities**

Client’s core IS capabilities can be defined as "a capability needed to facilitate the exploitation of IT, measurable in terms of IT activities supported, and resulting business performance"[14]. The client organizations are suggested to retain their core capabilities in-house and only consider outsourcing their non-core capabilities [4, 11]. However, identifying the organization’s core capabilities is easier said than done, thus Willcocks & Lacity [11] propose a framework which could be used to identify the client...
core capabilities. The framework consists of the following nine core capabilities: leadership, business systems thinking, relationship building, architecture planning and design, making process and technology work, inform buying, contract facilitation, contract monitoring, and supplier development.

Evidences supporting the need to retain the client core capabilities in-house could be found on the three ITO case studies on DuPont, State Super Financial Services, and British Petroleum by Willcocks & Lacity [11]. The study indicated that during the early years of large-scale outsourcing contracts, all three clients were facing problems due to retaining inadequate capabilities to control the IT operations. The three companies then improved their core capabilities and have managed to increase their IT operations control which resulted in the ability to produce greater business benefits.

Relationship

ITO relationship can be defined as “a state of connectedness between client and supplier managers in an ITO arrangement”[6]. As can be noted from table 1, many authors agree that relationship between the client and the supplier is an ITO key success factor. Alborz et al. [6] study on four ITO cases shows that quality of relationship (QoR) is positively associated with the IT outsourcing success (see Figure 1). Furthermore, another study by Seddon & Cullen [7] also shows a similar positive association between QoR and client’s satisfaction (see Figure 2).

Although the association between QoR and ITO success is strong, the influence direction between the two is intriguing to be justified. All of the literatures’ author(s) in table 1 which support relationship factor agree that QoR influence the ITO success. However, there is a possibility that ITO success rate could also influence the relationship. Supplier manager #33 in Fin_Co and Tel_Co case study [15] stated that “when a big network problem happens, the relationship may get hit too”. The most sensible explanation for the two variables’ correlation is both QoR and ITO are influencing each other. Therefore, both statements of “better relationships lead to better outcomes” and “better outcomes lead to better relationships” are true [7].

ITO Process

Each ITO has a lifecycle and in each ITO lifecycle, there is a sequence of important processes which should be done in order to obtain the expected ITO benefits [16]. The authors further suggest nine building blocks of recommended outsourcing processes which should be appropriately executed during the outsourcing lifecycle (see Figure 3).

Evidence supports the importance of executing the whole recommended ITO processes could be found from the international airline’s ITO contract case (case 26) in Cullen et al.’s [16] case studies. The contract was made based on trust between the client’s general manager and the supplier’s top executive. Thus they decided to bypass the need of preparing SLA, price framework and contract which are part of building block 4 (design). The lack of ITO contract and specification has caused the supplier’s over-billing for several years.

However, Cullen et al.’s further study also shows that there is a very low correlation between the ITO process and the client’s satisfaction (which could be associated with success). Such conflicting evidences show that, although it is crucial, executing the recommended processes is not the sole factor determining ITO success.

ITO Configuration Fit

ITO configuration is “a high-level description of the set of choices the organization makes in crafting its IT outsourcing portfolio”[17]. Further, the authors suggest the
following seven attributes as the notation of ITO configuration: scope, supplier grouping, financial scale, pricing framework, contract duration, resource ownership, and commercial relationship.

As the opposite of ITO configuration misfit [7], ITO configuration fit can be defined as the extent of ITO configuration supporting the client to achieve ITO success. ITO managers should ensure that the client organization correctly configure their ITO to fit the client’s expectation. Misfits in configuring the ITO will negatively influence the quality of relationship between client and supplier, ITO outcomes and the ITO overall satisfaction [7]. Figure 4 shows that ITO configuration misfits are negatively correlated with ITO outcomes, satisfaction and QoR.

Although did not discussed the whole ITO configuration attributes, several other authors agree that ITO configuration fit will increase the possibility of achieving ITO success. For example, both Fisher [4] and Willcocks & Lacity [11] argue that ITO contracts with shorter duration will have a higher possibility to success than an ITO contract with longer duration. A case study by Fisher [4] on an Australian telecommunication company is a sample of evidence supporting the argument. Learning from the first wave outsourcing practice (ten year contract duration) which considered as an inadequate and unmanageable practice, the client decided to reduce the second and third wave’s outsourcing contract duration to five years. The decision has contributes to the client’s success in wave two and three.

Supplier Capabilities

Supplier capabilities factor focus on selecting the right ITO vendor which able to deliver the client’s expectations. Willcocks & Lacity [11] argue that the client should firstly identify list of capabilities required to deliver their ITO expectations and then use the list to evaluate the potential vendors. The authors then suggest twelve supplier capabilities model as a tool to evaluate the ITO provider’s capabilities (see Figure 5). In addition to the supplier’s capabilities, the client organization should also consider the vendor’s stability, quality and reputation [2].

A survey result by Gonzalez et al. [2] on 306 large Spanish firms which outsource their IT function(s) shows that "choosing the right provider" factor is selected by 53.6% of participant organizations as an ITO key success factor. Another sample of evidence is the case of ITO agreement between ATT and IBM [11]. ATT wants to obtain the high skills and low costs of IT services from India with low risks. Since ATT consider outsourcing directly to India as high risk, ATT decided to contract IBM to serve their IT requirements from India. Such practice shows how ATT choose IBM based on IBM’s capabilities to deliver the client’s expectations (high skills and low costs with low risks).

ITO Contract

A written contract is a formal control which can be further defined as "management-initiated mechanisms designed to guide behavior toward desired objectives"[18]. Each ITO arrangement should always be equipped with a complete and flexible contract [8, 4, 2, 11]. Further, a survey by Willcocks & Lacity [11] identified that the following clauses are important to exist in ITO contract: costs, confidentiality, service level agreements, early termination, liability and indemnity, change contingency, and supplier non-performance penalty.

A good supporting evidence for the above argument is a study by Willcocks & Lacity [11]. Their findings showed that ITO practices with detailed contract are more likely to achieve success (75% success rate) than outsourcing practices with other type of contract. Other sample of evidence is the case study of an Australian telecommunication outsourcing contract [4]. During the first wave outsourcing, the client used an inflexible contract which has cause problems due to inability to adapt technological change.

Figure 4: Scatter-plots showing relationship between ITO misfit and outcomes, satisfaction and QoR [7]

Figure 5: Twelve supplier capabilities model [11]
ing from the first wave’s experience, the client decided to put flexibility in their second wave’s contracts with other ITO providers. The client company regards the later contract as successful and continues to use the similar contract for their offshore arrangement.

In addition to directly influencing the ITO success, a good contract is crucial since it also influence the QoR between the client organization and the vendor [8, 18]. Study by Goo & Nam [18] shows that there is a significant positive correlation (p < .05 and p < .01) between contract attributes (governance, change management, and foundation) and relationship attributes (trust and commitment) (see Figure 6).

Stakeholder Management

Managing all of the involved stakeholders and gather their support is important to obtain the ITO success. The stakeholders’ support is crucial since the ITO success achievement will require the achievement of both political power and domain knowledge [11]. Further, Gottschalk & Solli-Sther [5] suggest that effective and efficient communications between internal stakeholders are required to secure their support, balance their interests, and deliver their expectations.

Case studies conducted by Gottschalk & Solli-Sther [5] on three ITO deals (Rolls-Royce - EDS, ABB - IBM, and Scandinavian Airlines - CSC) show that the stakeholder management factor achieves an average score of 4.58 on scale between 1 (low) to 5 (high). The score shows that stakeholder management factor is perceived as the second most important key success factor of an ITO practice by the participants. Another sample of evidence comes from the Australian telecommunication company case study [4]. The case study shows that inadequate involvement from all stakeholders will result in mismatch between service level metrics and business priorities. Furthermore, the failures in understanding the stakeholders’ expectations have produced a lot of reworks which consume more time and resources.

CONCLUSION

The IT outsourcing success from the client perspective can be defined as the client’s satisfaction towards the fulfillment of their ITO expectations. Thus, identifying and understanding the client’s expectations are crucial preliminary processes of conducting an outsourcing practice. With a clear understanding on both the expectations and the success measurements, an ITO manager could use the proposed key success factors to manage the ITO lifecycle and pursue the defined success.

The proposed key success factors are list of client’s manageable factors which could significantly influence the success of all ITO with any type of configuration. Based from the literatures, the following list of factors is proposed as the ITO key success factors: selective, outsourcing, client core capabilities, relationship, ITO process, ITO configuration fit, supplier capabilities, ITO contract and stakeholder management.

Due to the limited time and resource, this paper can only synthesize knowledge about the ITO success factors from the literatures which possess plausible arguments and are supported with strong evidences. Further study is required to test the applicability of the proposed success factors on real ITO practices.

REFERENCES


