IT Outsourcing Risk Management Practices in Higher Educational Institutes in Ethiopia – A Qualitative Study

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Abstract

Using a qualitative research method, this work investigates risks associated with IT outsourcing and aspects of managing outsourcing risks in the context of Higher Learning Institutes (HLI) in Ethiopia. Primary data is collected through interviews conducted with various stakeholders in the IT outsourcing process including a select set of executives, committee members, domain experts and users. Respondents of the HLIs demonstrated adequate understanding of IT outsourcing processes, yet the HLIs were found to have no structured or documented outsourcing strategy, policy or program in place. Risk management frameworks for IT outsourcing projects were either absent or not documented. Overall, the findings reveal a general lack of appreciation for needs of structure and documentation in all aspects of outsourcing contracts. As a result, the risk management practices of the HLIs are found to depend largely on intuitions and previous experiences.

Keywords

IT Outsourcing, Higher education, IT outsourcing contracts, Ethiopia.

Introduction

The term outsourcing denotes contractual engagements to employ external agencies to perform organizational activities which may or may not relate to Information Systems (Dibbern et al., 2004). Outsourcing, including IT outsourcing is an important managerial strategy today that helps organizations free resources to focus on their core competencies and concentrate on activities around their value added services¹. However, IT outsourcing comes with its attendant risks, viz. operational risks, information confidentiality risks, business disruption risks and compliance risks (The Wall Street Journal, 2012)², making it imperative that the risks of outsourcing must be assessed and evaluated against the expected benefits from an outsourcing contract. It is understood that large higher learning organizations are much the same as corporate entities in the way their IT infrastructure and services are organized and in the manners they face IT risks (Valencia et. al 2013). However, there is barely any study in the outsourcing of IT services in higher education in the developing world. In this work, we investigate the current IT outsourcing risk management practices of higher learning institutes (henceforth HLI) in Ethiopia and attempt to answer the question ‘How do Higher Learning Institutions in Ethiopia handle risks in relation to information systems outsourcing projects?’.

¹ http://searchcio.techtarget.com/answer/The-importance-of-outsourcing
² http://deloitte.wsj.com/cio/2012/07/10/it-outsourcing-4-serious-risks-and-ways-to-mitigate-them/
IT Outsourcing - an evolution reaching higher education in Ethiopia

Managers began to employ IT outsourcing quite early, the distinction of the very first major IT outsourcing goes to Electronic Data Systems (EDS), when in 1963 it signed an agreement with Blue Cross of Pennsylvania for handling its data processing services (Klepper and Jones, 1999). Along with shared business processes, IT outsourcing is one most prominent outsourcing activities today. In the 70s and 80s, the majority of outsourced IT work was around low-end services (Fink and Shoeib, 1994; Klepper and Jones, 1999). However, late 1980s saw outsourcing significantly impact the IT world. During the 90s, IT outsourcing began as a means to supplement in-house IT development activities and still continues to be an economic phenomenon across the world (Pati and Desai, 2005). High-speed networking and web-enabled services have further facilitated IS outsourcing and secured exchange of information with improved reliability and security measures. Application services providers (ASPs) have become ways in which modern firms including higher education institutions often attempt to meet IT resource demands (ECAR, 2002). Phipps and Merisotis (2005) have shown that the primary reason to outsource IT functions in HLI are not cost related and that their motivations often center on their IT inefficiencies or lack of capabilities (e.g., lack of critical in-house IT skills; lack of access to advanced technologies etc.) Gonzalez et al (2009) have shown that strategic issues remain the primary consideration for outsourcing IT functions, while cost savings motivation barely makes it to the top 5.

Although the degree may substantially differ between country specific conditions, generally it is known to be much easier to outsource a product or service than its associated risk (Benvenuto and Brand 2005). An outsourcing organization needs to make sure that appropriate controls are instituted to manage IT outsourcing risks. It is also important that personnel involved in managing outsourcing contracts are able to evaluate operational risks, efficiently manage inter-organizational relationships and ensure that desired level of performance is achieved through these contracts (Claver et al., 2002, Saravanja, 2006).

Often IT and other outsourcings and their impact on education are not discussed (Gupta et al., 2005). However, many HLIs employ reliable web-enabled services, IT outsourcing and application services providers (ASPs) to meet their IT resource demands today (ECAR, 2002). However, growth of IT outsourcing in HLIs is slow in comparison to commercial and government sectors. Further, HIL IT outsourcing engagements are often plagued by inadequately competitive bidding, cursory negotiations or inept project management conditions (Kancheva, 2002).

Research suggests that the express reasons for IT outsourcing in Ethiopia are improving service level quality, acquiring innovative ideas, freeing resource and time to focus more on core business, enhancing flexibility to meet changing business conditions, and perceived lack of internal expertise (Mulat, 2007). In general, the most outsourced IT functions in HIL are IT infrastructure, application management, and e-learning, while business process operations and distributed services are the least likely IT functions to be outsourced by the HLIs (ECAR, 2002). In this work, we investigate risk management approaches, structures, readiness and procedures of HLIs in Ethiopia.

Risks Associated with IT Outsourcing

The issue of outsourcing is far more complex and involved than simply asking whether an organization should outsource or not; the outsourcing firm must carry out a full strategic multifactor assessment before making any such decisions (Blumberg, 1998). Lack of rigorous strategic assessment has shown to significantly enhance risks to an organization including but not limited to lower quality, higher pricing, and loss of purchasing leverage arising out of inconsistent sourcing and selection criteria (O’Keeffe et. al., 2004). Lack of motivation, formalism, and political bias are also considered contributors to the failure of IT.

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4 In 1987, Kodak selected three companies to perform a significant part of its internal information systems activities. As a result, Kodak’s one billion outsourcing deal led to the widespread interest in outsourcing and following on from the success of the Kodak deal, other well-known companies quickly followed the suit and benefits from this arrangement, General Dynamics, Delta Airlines, Continental Bank, Xerox, McDonnell Douglas, Chevron, DuPont, JP Morgan, and Bell South signal the rise of outsourcing (Dibbern et al., 2004).
outsourcing projects in public organizations (Gramatikov, 2002). The risks of outsourcing has been appropriately classified into five types (Rouse and Corbitt, 2007), which are summarized below:

<table>
<thead>
<tr>
<th>Types of risk</th>
<th>Possible Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial risks</td>
<td>Risks of cost overrun, resulting in less than expected savings</td>
</tr>
<tr>
<td>Performance oriented</td>
<td>Non receipt of service or receipt of service of lower quality.</td>
</tr>
<tr>
<td>Strategic resource risks</td>
<td>The risk of loss of organizational knowledge and competencies</td>
</tr>
<tr>
<td>Lock-in risks</td>
<td>Underperforming relationship with no alternatives to switch</td>
</tr>
<tr>
<td>Operational risks</td>
<td>Risks of IT services failure resulting in inadequate or unsatisfactory customer service, or loss of organizational resources</td>
</tr>
</tbody>
</table>

**TABLE 1: Risk of Outsourcing and Possible Outcomes (Adapted from: Rouse and Corbitt, 2007)**

Once the outsourcing decision is taken, it is often necessary to continuously justify the decisions including reassessment of risks; make updated plans for continued evaluation of the performance of the vendor; experientially enrich the criteria for selecting vendors and resolution of disputes; and learning how to manage the post-contract relationships.

**IT Outsourcing and Risk Management**

Stoneburner et al. (2002) defines the term risk management as ‘...a systematic application of management policies, procedures and practices to the tasks of identifying, analyzing, assessing, treating and monitoring risk.” Thus, analyzing outsourcing risk and taking appropriate risk mitigation actions in any outsourcing project is important (Lin et al., 2007). On the other hand, in absence of proper risk management plans organization and project managers spend time and effort in correcting avoidable problems, expectations around success and failure remain arbitrary, and decisions are not circumspect or holistic in terms of long term impacts (Smith et al., 2001).

According to Aubert et al. (2002), risk analysis is the first important contributor towards outsourcing success. This becomes particularly present when identifying and implementing risk mitigation instruments such as the outsourcing contract. Therefore, a combined view of the activities associated with risk identification and assessment in the design of risk mitigation instruments can be contribute to an enhancement of the overall quality of an outsourcing deal.

However, even if risk management is a central part of any organizations strategic management, because of the multi-faced nature of risks associated with IT a ‘one size fits all’ risk management guideline is not a good practice. This is more specifically difficult in IT outsource project risk management practice (Fabian et al., 2007). On the other hand, most of the literature on risk management is clear and unambiguous about the general steps of risk management and its importance in terms of risk identification, risk assessment and risk control (Smith et al., 2001). For the purpose of this research, these three general risk management steps (i.e. risk identification, risk assessment, and risk mitigation) are considered.

**Method and Study Design**

**Method**

Qualitative research method provides ability to analyze complex textual descriptions of experience of processes and actions that embody the research issue. It additionally provides information about the human aspects including contradictions in beliefs, opinions, and relationships of individuals who engage themselves in such processes (Lazaro and Marcos, 2006). Since we are interested in the aspect of IT outsourcing risk as appreciated and understood by the managers of IT outsourcing contracts, it becomes appropriate that we use a qualitative research method to suitably approach our primary researcher question.
The Case Study Approach

There are a number of research methodologies that are applicable for qualitative research paradigm. Among this, ethnography, case study, ground theory, discourse analysis and biography are at the leading front methodologies used in qualitative research approaches (Creswell, 2003). A case study research is especially appropriate when a phenomenon must be studied in the context in which it occurs because of unclear perspectives and understandings of the boundaries between the phenomenon and the context of the phenomenon. Researchers also argue that the case study research method is especially well suited for IS research, since the objective of the study is often organizational and not technical in nature (Myers, 1997). In order for the research to be more interpretive and critical and capture the reality of the phenomenon, we have adopted the case study approach in this work.

Sampling Technique

In order to determine the sample population for this study, a purposive/Judgmental sampling technique was used. The motivation for using purposive sampling technique, as opposed to any other sampling techniques comes from the observation that, not all HLIs will have equal experience with regard to information systems outsourcing and some of the HLIs will not practice any information system outsourcing at all. Since one of the basic advantages of purposive sampling technique is that it enables the researcher to neglect the non-significant representatives of the population under study (Palys, 2008), after collecting pre-information about each HLIs; three HLIs has been selected purposely to conduct this research.5

Data Collection Instrument and Procedure

A case study method with interviews and observations aptly provide real-world insights about the subject under study when compared to other methods like questionnaires (Mariam, 2004). The research instruments for this research were based on the above premises. The primary data was collected through observation and semi-structured interviews in order to achieve the flexibility necessary to obtain valuable qualitative data, while making sure that the focus on the specific research questions remain do not waver. The interview questions were developed and contextualized for HLIs from a prior study by Adeleye (200) in which he investigates risk management practices in the Nigerian banks6.

The general structure of the interview questions was as follows: The first two sections of the interview guide were designed to understand the HLIs outsourcing strategies and their impacts of outsourcing. The roles of users and other significant contributors and stakeholders in the decision making process were investigated in the third section. The fourth section consisted of several questions involved in the following aspects of risk management practices 1) contract management 2) issues resolution and 3) performance monitoring criteria.

A total of 10 respondents were interviewed-most of who are committee members and are involved in the first outsourcing process and manage the contract afterward. These individuals were also responsible for the requirement definition and bid preparation (Request for Proposal preparation) processes of the outsourced IT functions. However, the number of interviewed respondents per institution vary for our research because of various reasons: some committee members who were involved in the outsourcing decision processes in the past were not currently available in the institution (Case 1), the number of target respondents in the institution was very few (case 2) and still some of the target respondents had other commitments that were construed to be of higher priority than supporting a research project (case 3). The

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5Interviews were conducted by telephone with IT department of six HLIs, whose names and addresses had been collected from various sources of information. Then they were informed about the study and asked whether or not they practiced information systems outsourcing. Five of the HLIs said that they outsourced some of their information system services in the past, while one did not outsource any information system. After having this information, Addis Ababa University, Hawassa University, and Jimma University were chosen for the purpose of this research. The HLIs chosen have comparatively better outsourcing experience, significant contracts, and a history of ICT utilization and adoption in the teaching learning activities.

6 The instrument was refined based on IT outsourcing risk management procedures outlined by the Canadian Institute of Chartered Accountants (CICA) Information Technology Advisor Committee (2005); “20 questions directors should ask about information technology outsourcing”, to include contract management, issues resolution and performance monitoring practices.
number of respondents for the institutions and their outsourced IS Functions are summarized in the following table:

<table>
<thead>
<tr>
<th>Name of the HLIs</th>
<th>No. of Respondents</th>
<th>Outsourced IS Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addis Ababa University</td>
<td>5</td>
<td>Registrar System, Network Infrastructure, Finance System</td>
</tr>
<tr>
<td>Jimma University</td>
<td>3</td>
<td>Registrar System and Wireless Technology</td>
</tr>
<tr>
<td>Hawassa University</td>
<td>2</td>
<td>Network Infrastructure and Registrar System</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>-</td>
</tr>
</tbody>
</table>

**TABLE 2: Outsourced IS functions and Number of Respondents per HILs**

All the HLIs were investigated with equal degrees of intensity to provide a substantial base for validating the research questions and assertions, and increasing the applicability of the findings. The secondary sources were books, journals, articles, white papers, websites, and contract documents.

**Data Analysis Procedure**

Since a clear definition of the unit of analysis is necessary in order to firmly bind a study, propose insights, and guide data collection (Yin, 1989 cited in Crosthwaite et al., 1997), four construct/measurement units (i.e. outsourcing strategy, stakeholders in outsourcing project, Impact of outsourcing, and risk management methods were taken from the instrument used to assess the risk management practice in their information system outsourcing practice.

There were two major steps included in data analysis phase: First, specific results were interpreted (within-case analysis); we focused on each unit of analysis (measurements). Furthermore, we focused especially on those influences on HLIs IS-sourcing decision that came from individuals, groups, and the entire organization because of our interest in understanding the practice in which the decision took place. Because of particular interest in these aspects, we compared them and detected some interesting patterns, which allowed us to see different aspects with regarded to information system outsourcing practice.

Second, to compare these specific results afterwards with each of the researched HLIs, cross-case analyses were used. This technique has enabled us to take a holistic approach to the problem under study and to integrate multiple sources of evidence. We use some interesting but commonly occurring results to discuss and illustrate the more general side of information system outsourcing practice in these selected HLIs.

**Case Study Results and Discussion**

A number of issues emerged from the analysis of the interview data. Given the level of use of IT in the HLIs, and the practice of outsourcing it is surprising to find that the HLIs do not have any explicit information system outsourcing strategy. One of the respondents who represent case 2 claimed that:

“...as to me it is better to say there is no defined outsourcing strategy so far but depending on an outsourcing initiative/request, the strategies will be planned or adopted in which the then environment may affect the required outsourcing strategy.”

Other respondents also answered that there were no defined information system outsourcing strategy but depending on an outsourcing initiative/request the strategies will be planned or adopted. However, as it was stressed by many authors, not having a strategy may affect the overall organization strategy and affect other categories of risk. Berbee (2005) stressed the importance of outsourcing strategies and argues that an outsourcing strategy provides answer to the following questions:

- What does the organization expect out of the outsourcing agreement and what will the results of the agreement be?
- What is the basic reason (reasons) for pursuing an outsourcing contract?
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- Who will manage the agreement and how will it be managed?
- How will the relationships enable the business?

Elmuti (2004) also emphasized that outsourcing strategies contribute to organizational goals (increased productivity, improved quality of the goods and services, and reduced cycle time). O’Keeffe and Vanlandingham (2004) argue that a lack of a rigorous strategic sourcing methodology may pose significant risks to an organization, e.g., inconsistent sourcing, higher pricing, lower quality, and underleveraged purchasing capabilities.

On the other hand respondents revealed that, there is a high intention to acquire new information systems through outsourcing. The possible explanation for this can be the fact that these HLIs intend to outsource a new information system believing that technology is the driving force in education sector. General pressure to remain viable and timely may also cause HLIs to look for advantages of IT revolution made available through outsourcing. This is exacerbated by the fact that IT is an emerging technically specialized field and Ethiopia, being a developing country, lacks the human resources and infrastructure to provide them in-house. Respondents agree that having ICT policy in place is necessary not only for Information system outsourcing but also for every ICT practices for the university in general. However, they also feel that highly bureaucratic decision-making processes in the HLIs has delayed formation of a concrete ICT policy.

According to Quaryle (cited in Adeleye, 2004), having a policy in place helps control purchasing and put in place contingency plan, while not having a policy can lead to an unfulfilled aims and objectives. Similarly, a number of problems were revealed by the respondents, which can be generalized as follows:

- Redundancy and lack of standardizations,
- Lack of common understanding between the ICT office and other units of the University.
- Conflicts in roles and responsibilities with regard to ICT

In the same line, one of the respondents who represent case 3 stressed that because of the lack of ICT policy in the university different units of the university adopt their own information systems:

“...if different units of the university bought their own information systems without consulting the ICT office, what is the role and responsibilities of the office with respect to ICT?”

However, currently, the ICTDO of case 1 developed a draft ICT policy, which articulates policy guidelines and describes critical areas for the development and application of ICT in the university, as partial requirement of the implementation of the ICT part of the Business Process Reengineering (BPR) in the university and all the respondents hope that it will be accepted. Other respondents also revealed they are on progress to develop an ICT policy and to implement in the near future.

In order to get an idea about the participation of different stakeholders in the information system outsourcing project, specific questions to evaluate the contribution of various stakeholders and their influence over the process were included in interview question guide and the respondents argued that at the very beginning of the outsourcing projects the top-level managements are responsible to approve the outsourcing initiation. However, after the initiation is approved, the management of information system outsourcing is heavily dependent on collaboration and consensus among committee members. Multi-layered influences include affected users, process owners, divisions and departments, and technical/domain experts.

The Integrated Budget and Finance Information System (IBFIS) Project is an ongoing automation outsourcing project in case 1. To this regard, a project team comprising five professionals was established, out of which four have expertise in IT and one having expertise in the domain area, has been put in place. The project team works hand-in-hand with the vendor and users (employees in the budget and finance office) to achieve the desired goal. Respondents unanimously agreed that there is an involvement of user departments in acquisition process and indicated that users are the most valuable assets in any information system outsourcing practice. As one of the respondents who represents case 2 indicated
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“...since the intended IS function/service is developed for various user departments of the university, they have a considerable involvement starting from the beginning step of the requirement analysis to performance evaluation/system testing”.

The interviewees complained mostly about the limited and unsatisfactory participation of the top-level management in information system outsourcing practices. However, not all respondents reported this level of "unsatisfactory" but many felt that the participation of the top-level management is minimal. One of the respondents who represent case 3 claimed that:

“... when you talk of the support of the top level management, it is very limited and I can say that it is below satisfactory not only in information system outsourcing practice but also in the overall ICT related support. They are not playing the expected role”

While the involvement of the top management of the HLIs is minimal in the outsourcing project, the higher involvement of users is possibly caused by the belief that the success of an information system depends not only on making a decision and developing the right information systems but also on the suitability to its users. However, the involvement of top-level management in IS outsourcing is known to be critical (Baker, 2007).

Gottschalk and Solli-Saether (2005) also emphasized that the outsourcing partnership has a much greater chance to flourish with the support of a C-level executive and an outsourcing initiative needs the support of people high enough to establish and enforce policies and procedures, and act as arbitrator and tiebreaker. For this reason, the relationship must be sponsored by an influential champion to see the opportunities that a high-value partner can capture.

While answering the impact of outsourcing, respondents recognized that outsourcing might have both negative and positive impact for the HLIs. However, Outsourcing decisions is strongly influenced by the expected benefits in all of the HLIs and different organizations may outsource for different reasons, but it is important for the HLIs to recognize the differences in reasons when assessing the impact of outsourcing. Respondents recognized that improved service availability, access to new technologies, solving management problems, better utilization of staff, Knowledge sharing/transfer, improved management information system and greater efficiency appeared are the positive impact in the HLIs outsourcing practice. One respondent in case 1 also argued that:

“Outsourcing has an impact on budget proven formulas, for example costs are highly emphasized by the university but when you come to the local company there will be proven software but with considerable costs”

However, cost saving was expressed as a low concern by other respondents while shortage of internal staff seems to be the most important determinant of IT outsourcing decisions. This finding is consistent with the study conducted by ECAR (2002) which reported that the reason given most often by higher institutes for IS outsourcing was that lack of critical in-house IT skills. Kremic et al. (2006) also argue that public organizations are in general more restricted in personnel practices and must follow strict guidelines on the number of civil servants that can be employed, and thus be particularly impacted by lack of capable personnel.

Problems with regard to security, loyalty of existing staff, vendors unwillingness to transfer knowledge, inability to get user requirements, promptness of attending to possible problems, guaranteeing the loyalty of staff of the vendors, dependency and delay, vendors inability to meet deadlines, legal loop-holes and delay in fault resolution are considered to be the drawbacks and point of risks attributable to outsourcing by the respondents.

To examine their risk management practice with regard to information system outsourcing, data was collected from three different areas of risk management practice in IS outsourcing projects, (a) Contract management (b) Issues resolution and (c) Performance monitoring. The respondents answered that, there is no an explicitly structured risks management procedures or guidelines for the outsourcing of information systems in place. One of the respondents from case 3 explained that their risk management process was nothing but a vanilla project risk management approach.

Nonetheless, most participants emphasized intuitive assessments and prior experience as a means of identifying and managing risk. Relying only on the intuition of the experienced managers to identify risks
has proven to be unsatisfactory in the past (Carter et al., 1996) especially from strategic perspectives. There are various other methods suggested by researchers, which include organizing brainstorming sessions with the managers to discuss the problems in-depth and provide solutions, conducting structured interviews to initiate a risk revealing discussion and at times to use expert computer-based systems or outside specialists or consultants, thus bringing in additional experience in the field of concern.

The respondents disagree in involving third party consultants in their information system outsourcing project for two major reasons. First, since, HLIs are the house of experts and have many experienced people it can utilize. Second, service provider organizations have their own consultants obviating the need to engage third party advisors.

Training needs of users and executives are determined in all the case study environments. However, most of the respondents claimed that the training need of users is looked at after outsourcing. Furthermore, they feel that the vendors, vendors’ partners or consultants could do this training. When asked if they consider such training effective, one respondent from case 1 said “No, not deep enough”. Another respondent from case 2 when asked the same question said, “It is not effective because the training is not continuous” Along the same line a respondent from case 3 said “not effective because it is merely an introductory or a sensitivity training”.

Regarding the previous status of the outsourcing projects, the research revealed both success and failure stories. One of the respondents who represent case 1 presently does not have an active role in outsourcing projects. However, the respondent was part of earlier outsourcing deals wherein the network infrastructure project of the university was outsourced to a vendor. He argued that,

“…even if there were no a clear risk management practice, we collaborated well, committee members and the vendor team met and discussed progress of the project regularly. As a result, we ended up with a successful project”

However, most of the respondents felt that the previous outsourcing practice of the universities were both failure and success in part. The following two evaluation criteria came out to be the most adopted techniques in the Higher Learning Institutions:

1. Technical vendor aspect and
2. Non- technical vendor evaluation aspect

The emphasis is first on the technical aspect of the vendor. This technical assessment amounts to about 70% of the overall assessment of the vendor. The possible explanation for this can be that the vendor should be able to meet all the requirements of the RFP document. With this underlining notion the incoming vendors are examined and assessed whether they can meet all the technical requirements or not. The non-technical vendor evaluation method accounts the remaining 30% of the evaluation criteria consisting of financial capacity, legality for the bid, previous experience, validity of presented references, and staff composition and merit.

The HLIs supplier/vendor selection criteria is consistent with the proposed decision making framework for an effective IT outsourcing supplier evaluation by Buyukozkan and Ersoy (2009) which emphasized six evaluation criteria; technological capability, profitability of supplier, relationship closeness, total cost, service quality, and reputation of supplier. Since selecting the right vendor is one of the main critical success factors (Embleton and Wright, 1998) for successful IS outsourcing Projects, the purpose of IT outsourcing supplier selection is to determine the optimal service provider who represents the best overall potential.

The respondents were very clear about the importance of managing the relationship with the service provider. However, respondents argued that there is no such detail communication mechanism except that of the SLA and the contract negotiation. Everything was to be resolved and managed by the contract agreement. One of the respondents who represent case 1 indicated that:

“After a contract agreement is signed a joint project plan is developed. This joint project plan helped us solve confusing issues”

However, Sweet et al (1999) stressed the importance of strong relationship management and issue resolution approach that goes beyond the mere performance of contractual obligations and should focus on
proactive and collaborative management of the relationship, manage the dynamically evolving services, communication processes, and performance review standards.

Bays (2004) also proposed the issue resolution process should consist of the following steps:

- Jointly determine the issues and persons responsible for resolving the issues and timeframe;
- Each party should be informed of their responsibilities and agree to the above;
- The appropriate level of management resolves issues. Unresolved issues that past due date should be escalated to higher ups.

Respondents indicated that, in addition to the positive side of outsourcing, outsourcing could also cause some negative side effects and inherent problems. Most of the respondents revealed two major potential point of concerns (users are not able to clearly define requirements, provide additional scope while the project is on progress leading to the delay of the project. One of the respondents who represent case 2 claimed that:

“Most of the problems that we have faced is that the user departments can’t define a clear requirement which has a great impact on the definition of the service level agreement. When the service level and the type and the function of the service are not clearly defined, it is difficult to meet the expected objectives”

Most of the respondents identified several reasons why requirements definition receives a high-level attention in outsourcing arrangements. No practical experience of the features a new IT system or service was to provide, particularly if these involved novel technologies was a definite problem. User departments often had knowledge at an abstract level and could not articulate detailed requirements and performance levels expected. Respondents also revealed that, opportunistic behavior on the part of the vendor became likely to occur. One of the respondents who represent case 2 claimed that:

“Performance of the vendor will not be the same as it is expressed on the paper. When we assessed vendors to outsource, we received a number of previous engagements on their proposals, which however later proved to be unsupported by facts.”

Another respondent who represents case 1 revealed that, security remains a major concern in its information system outsourcing practice and explained that “...even if certain failures can be tolerated, there are also some malfunctions that will not be tolerated at all since the organization is an educational institution”.

Respondents identified that the issue of the vendor’s performance being measured mostly against the technical aspects mentioned in the contract SLA. This is consistent with Yu and Cheng (2007) in which they proposed that an effective service level agreement (SLAs) can be used to identify the expected results and the measures by which both parties would evaluate performance. However, depending only on formal control would not be efficient in governing the relationship in a partnering way to control opportunistic behaviors and to form relational commitment. Thus relational governance is another endogenous mechanism that can enhance exchange performance by embedding private and public information flows in a matrix of social ties rather than by resorting to contract or its enforcement by a third party (Ren et al., 2008). Furthermore, performance monitoring and improvement procedures ensure that performance standards are being met through effective performance measurement and reporting Goolsby (2001) and successful performance management with a supplier depends on a clear understanding of the nature of the processes before they are outsourced.

In all case study environments, no formal IS/IT investment evaluation methodology was mentioned by any of the participants. Instead, several participants from both cases clearly indicated that there was a pre-agreed set of evaluation and control mechanisms in the SLAs within the outsourcing contracts, such as metrics, reports, reviews, and regular meetings.

When asked if a qualitative criteria is being included in SLA and measured for performance against these criteria, one respondent in Case 2 said, “...the use of scorecards and other quantitative contract evaluation mechanisms within the SLA was used in measuring and monitoring the performance of the results while they outsourced their network infrastructure”. Other respondents agreed it to be a key issue although it was not being practiced.
This result is also consistent with the findings of Ngwenyama and Sullivan (2006), which shows that public-sector organizations, by following governmental contract guidelines, had preempted the adoption of a formal IS/IT investment evaluation methodology, leading to loss of ability to get a balanced and truthful understanding of the performance of their contracts. Dean and Kiu (cited in Lin et al, 2007), also argue that organizations that rely solely on contract checklists for performance evaluation and monitoring do not necessarily achieve best practice.

Implications and limitations of study and concluding thoughts

On one hand, competitive forces in higher education mandate that HLIs concentrate in their core processes and maximize value addition to their products and services. On the other, the presence of established vendors and contractors offering market oriented IT products and outsourcing services make it amenable that these cost effective services be accessed to free valuable resources that can be utilized in the core processes. This makes it imperative that HLIs have in place an information system outsourcing strategy – an observation that our study underscores as absent in Ethiopia. A powerful policy would help the HLIs to have a process in place to allocate resources which can be utilized to create and operationalize an appropriate outsourcing strategy. It is therefore necessary that managers in the HLIs develop an ICT policy.

Second, the study points that the HLIs need to align Information Communication Technology (ICT) functions with their strategic objectives. Having done so, a HLIs outsourcing forward team should be made to contain a mix of managerial and technical talent, and include representatives from users that are expected to be directly and heavily impacted by outsourcing. Furthermore, The HLIs must create efficient and effective communication with and between stakeholders to secure continued support from all stakeholders, to balance their interests and to make the IT outsourcing arrangement so that all stakeholders achieve their goals.

Third, this work finds that all HLIs institutions involved in outsourcing of IS functions are in an environment without a regulatory risk management framework. However, not having a proper risk management approach can lead to an unfulfilled aims for the HLIs. Thus, the HLIs should seek to adopt a risk identification and assessment method that is suited to the culture and meets the depth of detail.

Fourth, a vendor evaluation method that will depend on the type of information system organizations outsource and the environment need to be in place. Similarly, outsourcing partners should be selected based on their willingness to cooperate with the HLIs in addition to their technical capacity in the operation being outsourced.

Fifth, the surveyed HLIs are found to use a contract-based performance monitoring approach. However, it is recommended that in addition to formal contract agreements, relational vendor management is also vital for the success of IS outsourcing projects. Therefore, it is important to base the management of service performances on relationship management in addition the SLA agreements and set these during the contract negotiation.

We were not able to include other government organizations in addition to HLIs that have the potential to understand the practice of risk management practice in information system outsourcing in Ethiopia. For this reason, it is recommended that, further research can address this by replicating this study with samples from multiple government sectors and as well as private organizations. Further, a study of this nature should be replicated in multiple HLIs to assess whether similar conditions exist in those places as well. Also, a comparative study between a HIL each from a developed and a developing country may show ways to find best practices that can be replicated in the HLIs of developing countries.

REFERENCES

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