**Design and Development of a Performance Evaluation Prototype
for IT Organizations in the Context of Outsourcing.**

Outsourcing has become an accepted means of driving efficiencies in the IT sector. But this phenomenon had brought with it certain risks, which had led to unsuccessful outsourcing relationships. One of the main reasons is inadequate attention in setting up appropriate measurement system to monitor the performance (efficiency and effectiveness) of the functioning of the IT organization in the context of outsourcing. The main objective of this research is to help an IT organization in the context of outsourcing to realize its current standing, so that it can take corrective steps where ever necessary and strive for continuous improvement. To achieve this objective we have formulated the research question as follows: How can we effectively monitor the performance (efficiency and effectiveness) of the functioning of the IT organization in the context of outsourcing?

The above research question was divided into five sub-questions and they were answered systematically. Initially, through a literature study and gathering of first hand information from the industry, we had tried to identify the complexities involved in outsourcing. We have identified as many as twenty complexities and had categorized them under four headings. They are: (i) complexities associated with contracts and service level agreements (ii) complexities associated with service level management process (iii) complexities associated with service level management organization and (iv) complexities due to intrinsic characteristics of IT. They were summarized in a table in the thesis.

A literature survey was pursued to find out the solutions available in the literature for tackling these issues. The findings are mapped to the complexities that we have identified earlier and presented in another table. In this study we realized that there is a need for a model to capture the multiple and complex relationships at an abstract level. Hence we had proposed two modeling techniques. The first one named SORD (Structured Outsourcing Relationship Diagram), was based on the notational developed by the researcher and the second one was based on UML. Both of them were equally good in capturing the complex relationships that existed in an outsourcing environment. But the second one has the advantage of being an internationally accepted modeling language.

An elaborate study on the existing performance evaluation frameworks that are used in the business environment was conducted and found that following three can be used for measuring the performance of an IT organization. They are: (i) SERVQVAL, (ii) Information Economics and (iii) IT Balanced Scorecard (ITBSC). This selection is based

on the fact that an IT organization is not a pure business organization, but an internal service provider. Among the three, the ITBSC was found to be more suitable than others, since it considers metrics/indicators from four different perspectives. Hence we had selected the ITBSC as the performance evaluation framework for the implementation of the proto type.

For the identification of meaningful performance indicators we conducted a case study, in addition to the literature survey. This was necessary because to the best of our knowledge, no research has been carried out in finding out meaningful metrics/indicators to measure the performance of an IT organization in an outsourcing environment. Our earlier study in identifying the complexities had helped us in conducting an effective case study and come up with meaningful metrics/indicators. It was conducted at the IT organization of a major fertilizer company in South India, which relies on multiparty outsourcing. The metrics so identified, the formula for calculating the metrics and the attributes such as the limits and priorities were presented in the thesis in a tabular form.

Finally, a prototype of an automated performance evaluation system was developed for the case study organization. It was based on the ITBSC using the performance indicators identified above. The prototype was implemented as a single user system on Java platform with MS Access DBMS. On evaluation we found that information produced by the system was useful for all the three levels of management, namely strategic, tactical and operational management, in discharging their responsibilities more effectively. The system was also found to be useful for the continuous improvement of the performance of the IT organization.

This prototype can be developed into a full-fledged web-based system and deployed over the organization wide intranet, so that much of the data collection and dissemination of results can be automated. Such a system will be very much useful in keeping the IT organization in the right track of continuous improvement.


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