

A Transition Framework for Geographically Distributed Software Projects

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Abstract—For the purposes of analysis the outsourcing process can be divided into three specific phases: Decision, Transition and Operation. Transition involves changing the outsourcing environment and in this case we consider it to be related to ‘Changing Software Vendors’ and ‘Changing Software Systems’. The proposed research aims to specifically address gaps associated with limited research into the transition phase of outsourced projects, by conducting an in-depth longitudinal case study of a large scale project having multiple stakeholders. Given the limitations of factor-based studies, an understanding of how the transition of distributed projects is enacted needs to be constructed. This study will generate such an understanding of the complexity and nature of this key project phase. In the first instance a case of transition from an external onshore vendor to its nearshore competitor has been analyzed. Our initial results show that outsourcing is indeed a complex endeavor even when carried out in a nearshore setting.

Keywords—global software engineering; nearshore; transition; switching vendors;

I. INTRODUCTION

Outsourcing is a variable phenomenon and so the specific nature of client-vendor relationships must be adapted to address changing demands and scenarios. Mirani in[1] provides one evolutionary framework that addresses the establishment and progression of client-vendor relationships. He argues that it typically begins with a ‘Contract’-based relationship in which simple applications are contracted out to the vendors. Over time more complex applications are assigned to selected vendors which demands the establishment of trust-based ‘Network’-like relationships. As such applications evolve and become business-critical a ‘Command-Based Hierarchy’ form of relationship is established. Thus relationships are fluid rather than fixed. McLaughlin & Peppard [2] assert that more than 80% of IT outsourcing contracts are renegotiated during their lifespan. The available options are then to continue with an existing vendor using the same contract, renegotiate the contract with the same vendor, re-tender the contract and switch to a new vendor, or backsource the outsourced activities in-house. Whitten and Leidner [3] also note that the decision to backsource or switch vendors is becoming a more common practice as firms vie for ways to further cut IT costs and improve IT service levels. They carried out an empirical study to examine the factors associated with decisions to backsource or switch vendors. Their findings suggest that product quality, service quality,

relationship quality and switching costs are associated with back sourcing. Minimal research has been directed towards the transitional phase of outsourced projects [4][5]. Butler et al in [4] categorised 116 articles based upon the focus of attention on GSE projects and found that only 2 articles from the 116 were related to the transitional phase. This coincides with the results from a mapping study in which we categorised 275 articles across various dimensions and found that just 15 were related to transition [6]. In this proposed research we aim to address this gap and carry out an in-depth case study of an inter-organizational project by analysing multiple stakeholder group perspectives.

II. RESEARCH QUESTIONS

- RQ1. What is currently known about the ‘Transition’ process in IT outsourcing projects?
- RQ2. What are the main issues faced by practitioners in managing the transition process?
- RQ3. What are the main stakeholder-groups’ contrasting viewpoints in the transition process?
- RQ4. How is an inter-organizational process of transition enacted?

III. METHODOLOGY

A. Literature Survey

We have carried out a systematic mapping study and identified relevant peer-reviewed articles related to the transitional phase of outsourcing projects. We are analyzing these studies and are using a snowballing approach [7] to identify other relevant papers to address Research Question 1.

B. Dilemma Analysis

We have conducted an initial critical investigation using a modified version of dilemma analysis [8] upon the publicly available data of an initial case project. We are also working on providing further results from these analyses.

C. Longitudinal Case Study

To understand the true complexity and dynamic nature of the case project, an in-depth longitudinal case study shall be employed. In order to support triangulation, data will be gathered using multiple methods which include interviews, questionnaires and the analysis of publicly available documents and reports. The case study is considered as an appropriate methodology for carrying out in-depth software

engineering related studies. It provides a flexible design, it draws heavily on qualitative data collected in a real word context and thus supports a high degree of realism [9].

IV. INITIAL RESULTS

Fig.1 presents the initial findings of the issues found to date related to the transitional phase of the case, categorized into three main groups: Vendor-related, Client-related and End Users-related.

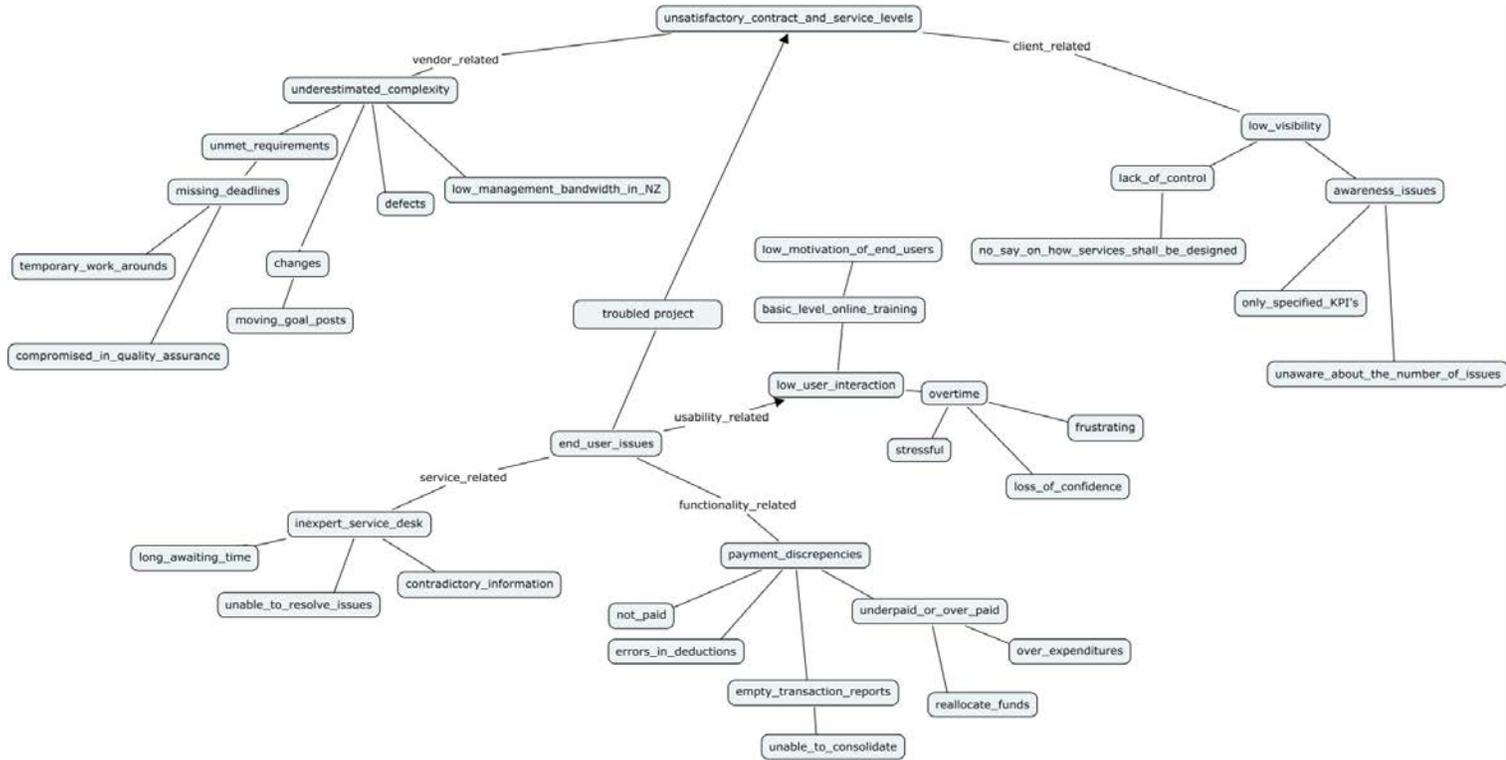


Figure1. Issues related to various stakeholders

V. CONCLUSION

This paper has briefly discussed the proposed PhD study. It highlights the gap and motivation to carry out an in-depth study. Addressing and understanding the transitional phase of outsourcing projects will improve the body of knowledge on outsourcing and provide a reference framework for specific context.

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