Assessment of Risk on Information Technology Projects Through Moments of Translation

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ABSTRACT

Many of the IT solutions in an organisation are employed through IT projects. Based on the reliance on IT solutions, organisations’ investment on IT projects has increased tremendously in the last two decades. This is informed and triggered by the premises that IT will help them to yield solutions that will fulfill or exceed their expectations, thereby make the organisation realise the required return on investment. Projects are a means to yield solutions through technological artefacts such as infrastructure (networks included), applications, databases or a combination of these. The technological artefacts do carries or are associated with foreseen or unforeseen risks. Hence proper risk identification and management on IT projects is necessitated to ensure that the organisation reaches its desire state. Unfortunately, risks are never easy to identify or manage. Using one case, the study employed actor-network theory in the analysis of the data to understand the factors which manifest themselves into risks during the deployment of IT projects in the organisation.

Keywords: Actor-Network Theory, IT Projects, Risk Identification, Risk Management, Translation

INTRODUCTION

There is an increasing demand for Information Technology (IT) solutions by organisations, including government administrations, financial institutions, higher institutions of learning, and insurance companies (Clancy, 2004). Some of these organisations process high volumes of data at high rates. The effectiveness and efficiency of their operations depend on the capability and capacity of the IT solutions. The IT solutions get obsoletes faster as a result of changes in the business environment and rapid development of IT artefacts. The changes are driven by the business objectives and strategies (Lee & Xia, 2003). This suggests that there is a need to deliver the solutions early while they are still relevant and value-adding to the business. Many of the IT solutions are employed through IT projects.

The IT projects are aimed at enabling business processes and activities in order to deliver business benefits and competitive advantage. IT projects follow project management principles like any other project in other disciplines and professions. They must be delivered on time, on
schedule, with expected performance functionality and they must add value to the business. Such IT projects have inherent risk like any other projects (PMBOK, 2004). What makes them different from other projects is that they deliver intangible products and solutions.

IT projects have an element of uncertainty and therefore carry inherent risk. According to Ferguson (2004), risk is defined as an uncertain event that could cause an uncertain impact on project schedule, cost, or quality. Many IT projects are prone to fail (Labuschagne et al., 2008) and this suggests that these are high-risk projects that need project risk management that can effectively improve the project outcome. Risk management is a crucial practice in attaining the successful delivery of IT projects (Tuman & Remenyi, 1999).

Risk management is a systematic process to identify, evaluate and address risks on a continuous basis to prevent such risks from having a negative impact on the institution’s service-delivery capacity (Baccarini et al., 2004). Risk management can be applied to an entire organisation at any time to specific functions, projects and activities.

RESEARCH APPROACH

The case study research approach was employed in the study. Lester (1997) defines case studies as a formal report based on the examination of a prearranged subject. Case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used (Yin, 2002). Case study research is an ideal methodology when a holistic, in depth investigation is needed. It is designed to bring out the details from the viewpoint of the participant by using multiple sources of data (Feagin, Orum, & Sjoberg, 1999).

According to Blumberg, Cooper, and Schindelr (2008), the most benefit of case studies is that they allow the combination of different source of evidence such as Interview, documentation and observation.

Data was collected using semi-structured interview to allow the researcher to refine the research questions during the interviews to converge issues that arose during the interviewing process. Documents were also used to add to the information received from respondents. Data were analysed using underpinning theory. Organisation used for case study was financial institution who provides services to its customer.

The study is underpinned by Actor-Network Theory (ANT). The actor-network theory has been widely accepted and used in many studies. Such of the studies include Hanseth and Monteiro (1997), Walsham and Sahay (1999), and Mitev (2008). Wernick et al. (2008) in their studies focused more on human related aspects and afterwards also covered the participation of non-human entities which illustrate the difference of both human and non-human actors.

An actor-network is the act linked together with all of its influencing factors in building a network (Suchman, 1987; Hanseth & Monteiro, 1998). Actor-network Theory (ANT) can be defined as a theory that integrates both human and non-human actors to form or create a network (Macome, 2008). The translation of an actor or actors into a network is achieved through a series of four moments of translation (Callon, 1986). Macome (2008) defined the four stages of moments of translation as follows:

i. **Problematisation.** Key actors attempt to define the problem and roles of other actors to fit the proposed solution, which was made by the key actors.

ii. **Interesment.** Processes that attempt to impose the identities and roles defined in problematisation on other actors.

iii. **Enrolment.** A process where one set of actors (key actors) imposes their will on others. The other actors will be persuaded to follow the identities and roles defined by the key actors. This will then lead to the establishment of a stable network of alliances.
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