

ORGANIZATIONAL AWARENESS AND FACTORS AFFECTING DEVELOPMENT OF BUSINESS DOMAIN KNOWLEDGE OF IT PROFESSIONALS IN SRI LANKAN OFFSHORE SOFTWARE ORGANIZATIONS

By



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Department of Computer Science & Engineering

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DECLARATION

“I hereby certify that this dissertation does not incorporate, without acknowledgement, any material previously submitted for a Degree or Diploma in any University and to the best of my knowledge and belief, it does not contain any material previously published or written by another person or myself except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations.”

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ABSTRACT

Offshore software development projects play a major role for the sustainability of Sri Lankan IT industry drawing high revenues to the country's economy and providing employment for youth. In a highly competitive global market, it is essential that Sri Lankan offshore software development organizations produce high quality, cost effective products and services meeting the expectations of overseas customers, in a timely manner. However, knowledge gaps between client and vendor affect negatively on software quality and client satisfaction. This characteristic of offshore development is a challenge faced by offshore vendors all over the world. Inter-organizational knowledge transfer process, which will help to alleviate this problem to some extent, was researched in previous studies (McLaughlin, *et al* 2008). However, there is no empirical evidence in the area of offshore outsourcing software development in the Sri Lankan context.

From the vendors' perspective, this study identified the factors, which impede the process of business domain knowledge transferring from client to IT professionals of Sri Lankan offshore software development vendors. The level of organizational awareness on the significance of building business domain knowledge of IT professionals and factors influencing building business knowledge of IT professionals of vendor organizations were also evaluated. A conceptual framework segmented into organizational and functional levels was used in this study to realise the objectives. A survey among different stakeholders of offshore software development organizations was carried out in 31 organizations in Sri Lanka.

Data indicated a high organizational awareness level on the significance of building business domain knowledge of IT professionals. However, research findings revealed factors such as Perceived Cost of Business Domain Knowledge Transfer, Client Reluctance, Perceived Client Knowledge Deficiency and Inflexible Time Schedules would make a negative impact on building business domain knowledge of IT professionals. A project factor "Conceptual Novelty", has been found to be an enabler for the organizations to initiate the building up process of the business domain knowledge of IT professionals.

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LIST OF ACRONYMS AND NOMINAL DEFINITIONS

- BDK** - Business Domain Knowledge.
- BOI** - Board of Investment, Sri Lanka.
- CMMI** - Capability Maturity Model Integration
- Customer / Client** - Party that outsources its software development work or any other IT service to another party.
- EDB** - Export Development Board, Sri Lanka.
- IT** - Information Technology.
- TQM** - Total Quality Management
- UML** - Unified Modeling Language
- Vendor** - Outsourced party, which will carry out the software development activities on behalf of Client.

