

**Analyzing Knowledge  
Management Capabilities of  
Software Development  
Companies in Sri Lanka**



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By

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This dissertation was submitted to the Department Computer Science & Engineering of the University of Moratuwa in partial fulfillment of the requirements for the Degree of Masters in Business Administration in Information Technology.

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## Abstract

Knowledge management (KM) has been the subject of much discussion over the past decade. Organisations have realized that they will not survive in the modern knowledge era unless they have a strategy for managing and leveraging value from their intellectual assets, and many KM lifecycles and strategies have been proposed. The term "Knowledge Management" has been applied to a very broad spectrum of activities designed to manage, exchange and create or enhance intellectual assets within an organisation.

Software development is a mental exercise. Software is produced by human thoughts that cannot be controlled, gathered or accumulated in the same ways as with physical goods. Knowledge work is fundamentally different in character from physical labor. The thoughts will make the knowledge, which is the main asset for any software development company. Hence the way it is managed is of crucial importance towards avoiding the repetition of mistakes and effective use of existing know-how in value addition process. The capability to do so by individual companies will decide their survival on the competitive market. As an emerging industry in Sri Lanka, software companies should focus on the knowledge management capability.

This dissertation tries to analyze the capability of knowledge management of software development companies in four different aspects. Those are *management focus, staff perception and attitude, internal process* and *available infrastructure*. We wish to analyze those aspects in Sri Lankan context and give guidelines on managing the knowledge asset. The capability index is derived, after gathering the importance of each aspect by questioning the industry people. Also the current level of capability is assessed, with the use of a derived scale; hence it gives an industry wide analysis.

# Declaration

I certify that this thesis does not incorporate without acknowledgement to the material previously submitted for a degree or diploma in any university to the best of my knowledge and I believe it does not contain any material previously submitted for a written or orally communicated by other person except where due reference was made on this.

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To the best of my knowledge the above particulars are correct

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## List of Abbreviations

ANOVA	Analysis of Variance
CBR	Case Based Reasoning
CMMI	Capability Maturity Model Integrated
CRM	Customer Relationship Management
DMS	Document Management System
ISO	International Standards Organization
J2EE	Java 2 Enterprise Edition
J2ME	Java 2 Mobile Edition
KM	Knowledge Management
KMC	Knowledge Management Capability
KMCI	Knowledge Management Capability Index
PM	Project Manager
QA	Quality Assurance
SEI	Software Engineering Institute
SLASI	Sri Lanka Association for the Software Industry
SQA	Software Quality Assurance
SVA	Software Vendors Association
TQM	Total Quality Management
WBS	Work Breakdown Structure

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