

**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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# Table of Contents

<b>ABSTRACT</b> .....	<b>II</b>
<b>DECLARATION</b> .....	<b>III</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>IV</b>
<b>LIST OF ABBREVIATIONS</b> .....	<b>VIII</b>
<b>LIST OF TABLES</b> .....	<b>IX</b>
<b>LIST OF FIGURES</b> .....	<b>X</b>
<b>1. INTRODUCTION</b> .....	<b>1</b>
<b>1.1. Background</b> .....	<b>1</b>
<b>1.2. Importance of Knowledge Management to Software Development     Companies</b> .....	<b>2</b>
<b>1.3. Research Problem</b> .....	<b>4</b>
<b>1.4. Research Objectives</b> .....	<b>5</b>
<b>1.5. Structure of the Dissertation</b> .....	<b>5</b>
<b>2. LITERATURE REVIEW</b> .....	<b>7</b>
<b>2.1. General</b> .....	<b>7</b>
<b>2.2. What is Knowledge?</b> .....	<b>8</b>
2.2.1. General Meaning .....	<b>8</b>
2.2.2. Tacit Knowledge.....	<b>9</b>
2.2.3. Explicit Knowledge .....	<b>10</b>
<b>2.3. What is Knowledge Management?</b> .....	<b>11</b>
<b>2.4. Knowledge versus Organizational Culture</b> .....	<b>12</b>
<b>2.5. The Use of Technology in Knowledge Management</b> .....	<b>13</b>
<b>2.6. Critical Views on Knowledge Management</b> .....	<b>14</b>
<b>2.7. Knowledge Management Frameworks</b> .....	<b>15</b>
<b>2.8. Assessing the Knowledge Management</b> .....	<b>17</b>
2.8.1. Knowledge Management Capability Check List .....	<b>17</b>
2.8.2. Other Findings on Assessing the Knowledge Management.....	<b>18</b>

2.9. Use of Literature Review .....	19
<b>3. RESEARCH METHODOLOGY .....</b>	<b>20</b>
3.1. General.....	20
3.2. The Feedback From the Literature Survey.....	20
3.2.1. Knowledge Definition .....	20
3.2.2. Social-Cultural Aspects of Knowledge .....	20
3.3. Research Model.....	21
3.3.1. Four Pillars of Concepts .....	21
3.3.2. Knowledge Management Process.....	24
3.3.3. Corporate Memory and it's Usage.....	24
3.3.4. Knowledge Management Capability .....	24
3.4. Operationalization of Variables.....	25
3.4.1. Hypothesis Building .....	26
3.4.2. Deriving the Knowledge Management Capability Framework.....	26
3.4.3. Defining the Indicators and Measures for Variables .....	27
3.5. Questionnaire .....	30
3.5.1. Questionnaire Design.....	30
3.5.2. Guidelines Adopted When Writing the Questionnaire.....	31
3.6. Interviews.....	32
<b>4. DATA COLLECTION AND ANALYSIS .....</b>	<b>33</b>
4.1. General.....	33
4.2. Sampling .....	33
4.3. Survey and Feedback.....	34
4.4. Statistical Analysis of Data.....	35
4.4.1. Descriptive Statistics .....	37
4.4.2. Linear Regression Analysis .....	37
4.4.3. Multiple Regression Analysis.....	39
4.4.4. Hypothesis Testing .....	42
4.4.5. Summary.....	43
4.5. Deriving KMC Index Framework.....	43
4.5.1. Normalizing the KMC Index .....	44
4.5.2. Acceptance Region .....	45

4.6. Discussion.....	47
<b>5. LIMITATIONS OF THE STUDY.....</b>	<b>50</b>
5.1. General.....	50
5.1.1. Limited Time Period.....	50
5.1.2. Small Industry.....	50
5.1.3. Lack of Knowledge on the Subject.....	50
5.1.4. Difficulty to Find Company Information .....	50
5.2. Questionnaire Related Issues .....	51
<b>6. CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>52</b>
6.1. Introduction.....	52
6.2. Conclusion .....	52
6.3. Recommendations .....	54
6.3.1. For Industry .....	54
6.3.2. For Future Work .....	55
<b>REFERENCES.....</b>	<b>56</b>
<b>APPENDIX A: QUESTIONNAIRE .....</b>	<b>A-1</b>
<b>APPENDIX B: RAW DATA – IMPORTANCE .....</b>	<b>B-1</b>
<b>APPENDIX C: SUMMARIZED DATA – IMPORTANCE.....</b>	<b>C-1</b>
<b>APPENDIX D: SUMMARIZED DATA – CURRENT PRACTICE.....</b>	<b>D-1</b>
<b>APPENDIX E: INSTRUCTIONS TO RESPONDERS.....</b>	<b>E-1</b>



## 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

## List of Tables

Table 2.1: KM Spectrum and Applications .....	16
Table 3.1: Independent and Dependent Variables .....	25
Table 3.2: Operationalization of Independent Variables .....	28
Table 3.3: Operationalization of Dependent Variable .....	29
Table 3.4: Section Breakdown in Questionnaire .....	30
Table 4.1: Sample Selection .....	34
Table 4.2: Response Breakdown.....	35
Table 4.3: Weighting the Answers.....	36
Table 4.4: Descriptive Statistics .....	37
Table 4.5: Linear Regress Result X1 –Y1 .....	37
Table 4.6: Linear Regression Result X2 –Y1 .....	38
Table 4.7: Linear Regress Result X3 –Y1 .....	38
Table 4.8: Linear Regress Result X4 –Y1 .....	39
Table 4.9: Multiple Regression Result – Full Set .....	39
Table 4.10: ANOVA - Full Set .....	39
Table 4.11: Multiple Regression Result – Dropped X3.....	40
Table 4.12: ANOVA – Dropped X3 .....	40
Table 4.13: Multiple Regression Result – Dropped X4.....	41
Table 4.14: ANOVA – Dropped X4 .....	41
Table 4.15: The Lowest Boundaries of X1 X2, and X3 .....	46
Table B.1: Raw data – importance – independent variable .....	B-1
Table B.2: Raw data – importance – dependent variable .....	B-3
Table C.1: Summarized data – importance.....	C-1
Table D.1: Summarized data – current practice.....	D-1

## List of Figures

Figure 3.1: The Research Model.....	21
Figure 4.1: Category wise Response Breakdown .....	35
Figure 4.2: KMC Plane .....	43
Figure 4.3: The Lowest Boundaries of X1 X2, and X3 .....	45
Figure 4.4: The Current Practice X1 .....	46
Figure 4.5: The Current Practice X2.....	46
Figure 4.6: The Current Practice X3 .....	47
Figure 4.7: KMC Index.....	47
Figure 4.8: KMC Index Vs Scale of Companies .....	48
Figure 4.9: KMC Index in Large Scale Companies.....	48
Figure 4.10: KMC Index in Medium Scale Companies.....	49
Figure 4.11: KMC Index in Small Scale Companies.....	49

