

**IDENTIFYING FACTORS IN REQUIREMENTS
ENGINEERING PHASE AND IMPACT THEREOF ON
SOFTWARE DEVELOPMENT PHASE: A STUDY ON
SRI LANKAN BANKING SOFTWARE DOMAIN**

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Declaration

“I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief, it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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Abstract

Requirements engineering is an important stage of the software development life cycle. All other phases of development lifecycle are depending on that. Especially the development phase is based on the requirements and therefore requirements should be clearly understood and properly documented. There can be several factors which should be considered within the requirements engineering phase. In this research through the literature review, it has been identified four major factors; they are communication, inadequate/incomplete requirements engineering, requirements prioritization, and requirements documentation. Based on the identified factors, a separate questionnaire has been developed for requirements engineers and software engineers. The questionnaire for requirements engineers is measuring how they are effectively using those factors within the requirements engineering phase and the questionnaire for software engineers is measuring how much impact is there for software development phase by those factors. With the information gathered, the Straussian grounded theory has been used to analyze the data and the final outcome shows that those factors are highly effective in the requirements engineering phase and impacts to the development phase as well.

Keywords: Software Development Life Cycle, Software Development, Requirements Engineering, Banking, Finance, Requirements, Requirements Documentation, Communication, Incomplete Requirements, Inadequate Requirements, Requirements Prioritization,

Dedication

I dedicate this thesis to my family, all my teachers for nursing me with affection and love and their dedicated partnership for success in my life.

Acknowledgement

I wish to express my greatest gratitude to all those who have helped me achieve this research on the topic of “Identification of Factors in Requirements Engineering and its Impact on the Software Development Phase: A study on Sri Lankan banking Software Domain” successfully.

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List of Abbreviations

| | |
|----------|---|
| SDLC | - Software Development Life Cycle |
| DB | - Database |
| IT | - Information Technology |
| BRS | - Business Requirement Specification |
| SRS | - Software Requirement Specification |
| RAD | - Rapid Application Development |
| ATM | - Automated Teller Machines |
| ICT | - Information Communication Technology |
| SLASSCOM | - Sri Lanka Association of Software and Service Companies |