ADOPTION OF AGILE METHODS TO DRIVE SOFTWARE PROJECTS IN NON-IT BASED ENTERPRISES IN SRI LANKA

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MASTER OF BUSINESS ADMINISTRATION IN INFORMATION TECHNOLOGY

Department of Computer Science & Engineering

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Sri Lanka

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Dissertation submitted in partial fulfilment of the requirements for the degree Master of Business Administration in Information Technology

Department of Computer Science & Engineering

University of Moratuwa

Sri Lanka

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Declaration

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The above candidate has carried out research for the Masters Dissertation under my supervision.

…… ……...

Dr. Buddhinath Jayatilleke (Supervisor) Date

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Abstract

Adopting of Agile project management is a challenge for any organization. Agile is not a new concept to the IT community; it is used by many software companies to manage their software development projects. These concepts are not new even to Sri Lanka, but it's not a common practice among most of the organisations. There are a few software companies who use Agile project management approach to manage their software projects. There are many challenges in adopting agile techniques to manage and execute projects. Since the Agile project management can overcome many of the key factors causing software projects to fail, it is still worthwhile to adopt Agile. Though there is extensive research conducted around the world in Agile adoption challenges and its usage in software development companies, there is lack of similar studies conducted for non-IT enterprises. We find that there is a significant difference in the way companies whose core business is IT operates to that of other enterprises where IT is an essential building block. There has not been any research conducted in Sri Lanka in this nature. Hence, this research intends to fill that gap.

The conceptual framework has been built based on the findings of N. McKie and D. Elfanbaum in their publication of "The top five reasons software projects fail" [22] and "Challenges of Migrating to Agile Methodologies" of Sridhar Nerur, RadhaKanta Mahapatra, and George Mangalaraj [05]. A questionnaire was built covering all aspects of the framework and distributed among IT and Business Managers who have actively engaged with delivering software development projects in non-IT enterprises.

The results of this study prove that all the challenges faced by non-IT enterprises when adopting Agile to their project management is the same as what Software development companies faced. Further it was revealed that the principles of Agile project management are widely in used among non-IT enterprises without knowing them as "Agile". Hence, the finding of this research will prove useful in promoting "Agile" project management among the non-IT enterprises and will give an insight to the challenges which they should anticipated in the adoption process.

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Key Words: Agile, Project Management, Non-IT Enterprises, Adoption Challenges, Software Project Failure

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List of Abbreviations

Non-IT	Non Information Technology
IT	Information Technology
SPSS	Statistical Package for the Social Sciences
XP	Extreme Programming
AM	Agile Modeling
FDD	Feature Driven Development
DSDM	Dynamic Systems Development Method
ASD	Adaptive Software Development
ROI	Return on Invetment
R & D	Research & Development

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