INVISTIGATION OF NON-TECHNICAL ISSUES IN SOFTWARE DEVELOPMENT PHASES AND THEIR LINKAGES WITH SOFTWARE PROJECT FAILURE

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ABSTRACT

In software industry, every software organization faces technical and non-technical issues during software project development. Every software organization has aim to build software project under time, cost and with required quality goals. Due to technical and non-technical issues software project success criteria are affected and ultimately to software project failure.

In this study, we explored the non-technical issues in each software development phase and identified the factors that cause software project failure. For this purpose, we divided our study into two parts. In first part of study, we conducted interviews with software expert for exploring non-technical issues in each phase of software development using exploratory research technique. On the basis of experts opinions, we proposed hypotheses and design questionnaires. In the second part of the study, we conducted survey in 30 different software organization located in Pakistan's capital region. After survey, we analysed the responses and documented the result.

In this study, we found that non-technical issues (communication, understandability and political issues) prevailing in each software organization. Communication, understanability and political issues are those issues that affect software project and ultimately to software project failure. If these issues were managed properly affect software project. We linked these issue with software project failure in each software development phase. For this purpose we used correlation and logistic regression techniques to measure the association and causation between non-technical issues and software project failure in each software development phase.

After statistical analysis we found that understandability issues affect the undertaken software project in designing and coding phase only and it has no significantly effect in other phases of software development. Communication issues affect all phases of software development while political issues significantly affect software project in testing phase. We also found higher correlation between software project failure and communication issues.

Certificate of Originality

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Dedication

I would like to dedicate this thesis to my beloved parents who always supported me and whose unconditional support is always with me. They have given me encouragement to deal with each and every problem with enthusiasm and determination. Without their support I would not be able to complete this thesis. Their love, affection and belief in me, made me achieve my goals successfully. Further, I would like to extend my dedication to my beloved brothers, sisters, my supervisor **Dr.Tamim Ahmad Khan** and to maternal uncle (Khan Afsar).

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