IMPACT OF TECHNOLOGICAL AND CULTURAL CHANGE ON SOFTWARE ENGINEERS

MASTER OF BUSINESS ADMINISTRATION

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INFORMATION TECHNOLOGY

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IMPACT OF TECHNOLOGICAL AND CULTURAL CHANGE ON SOFTWARE ENGINEERS

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This dissertation was submitted to the Department of Computer Science & Engineering of the University of Moratuwa in partial fulfilment of the requirements for the Degree of MBA in Information Technology.

Department of Computer Science & Engineering

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December 2009

DECLARATION

"I certify that this thesis does not incorporate, without acknowledgement, any material previously submitted for a degree or diploma in any university. To the best of my knowledge and belief, it does not contain any material previously published, written or orally communicated by any other person or me, except where due reference is made in the text. I also hereby give consent for my dissertation, if accepted, to be made available for photocopying and for interlibrary loans, and for the title and summary to be made available to outside organizations"

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……. ……..

Dr. Buddhinath Jayatilleke Date

Supervisor

ABSTRACT

This study performs an in-depth analysis of the impact of technology change and organizational culture change on Software Engineers. Software Industry is fast moving and rapidly changing. The knowledge workers interact with computers and attempt to model a real world scenario in intangible computer software. This process is not made easier by the evolution of software technology, new hardware and various process methodologies. Software Engineers today need to have the ability to grasp new technologies and make use of them.

Culture of an organization is the heart of what employees believe in. Organizational culture is defined as a way of life characterized by certain sets of behavior, assumptions, beliefs and attitudes. It is found that the organizational culture has a significant impact on the organizational effectiveness and the success.

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The author presents an experiment and an analysis to find the impact of technological and cultural change on Software Engineers. This impact is studied in view of motivation and turnover intention of the Software Engineers. Hypothesis tests are performed in order to find the significance of this impact.

The results of the study show that there is a positive effect from technological change on Software Engineer's motivation and a negative effect from culture change on Software Engineer's motivation. Technology change does not seem to have a significant effect on Software Engineer's intentions to leave the organization but when it comes to the change of culture there is a significant effect. The Software Engineers wish to leave their organizations if a culture change is more frequent. The study concludes with recommendations of best practises to follow when technological and cultural change is needed.

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