AN ANALYSIS OF SKILLS GAPS IN SRI LANKAN SOFTWARE INDUSTRY

By

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

Department of Computer Science & Engineering
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DECLARATION

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

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ABSTRACT

The software industry is one of the fastest evolving industries. The change is so rapid that all the stakeholders, who interact with the software industry, need to be ready for any change taking place, in order to survive in the global market. Since the software industry is knowledge driven, employees are the driving force of its success. As a result organizations need to make sure their employees are capable of handling or facing any challenge within the industry. Today, most of the industries have experienced skills gaps or skill shortage issues, worldwide and are trying to find solutions to mitigate it. It has become a predominant problem to the software industry.

The purpose of this study is to conduct an analysis of the skills gaps, existing in the Sri Lankan software industry, to the benefit of all the stakeholders. It is focused on identifying factors that cause the skills gaps, their significance and skill deficiencies exist among employees, for programming & software engineering, testing & quality assurance and technical support job categories. Technology change, working experience and acquired training level were identified as the major factors to carry out a significant study of them, with respect to the existing skills gaps among employees in the industry. Skills gaps were identified in terms of soft skills, technical skills and core skills, according to each job category. Two questionnaires were used to collect data from non-managerial and managerial employees. The sample is then examined to get the results.

The results of this study indicated that technology change has the most significant influence on the existence of the skills gaps among the three factors. Also it proved that the lack of working experience and the lack of training level have impacted on the existence of the skills gaps among employees, in the Sri Lankan software industry. In addition to that the study revealed a set of skills (soft, technical, core) lacking among employees, for each job category. Finally the study concludes with a list of recommendations that organizations, individuals and the government can adopt, in order to mitigate the skills gaps in the Sri Lankan software industry.

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