Universiti Teknologi MARA

An Empirical Investigation of Software Quality Improvement

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Thesis submitted in fulfillment of the requirements for
Bachelor of Science (Hons) Information System Engineering
Faculty of Information Technology And Quantitative Science

October 2004

ACKNOWLEDGEMENTS

This thesis is a result of studies, investigation and research done from June until December 2004. I want to use this opportunity to thank a number of people for their contributions and support.

Firstly, I would like to acknowledge with particular gratitude my supervisor Puan Rogayah Binti Abdul Majid who provided me with ideas, concepts and guidelines. She also mainly responsible for motivating me to start this research project and spend a lot of time to share my problem during this work carried out. I am grateful for his support, supervision and cooperation. I hope that we will continue this cooperation in the future. Without his guidance, perhaps this work would never have been started, carried out or finished.

Secondly, I would like to thank to my program coordinator who are expert in software quality Puan Wan Noramalina for guiding my research and substantially helping with the development of survey question. Besides his encouragement, she also contributes a suggestion in order to improve this thesis.

Then is my IT project coordinator Dr Habibah Binti Haji Arshad. She was teaching me a lot about how to construct a research, how to conduct an effective survey and questionnaire and how to make a good conclusion. A very special thanks goes to Software Companies that involved in this research. They help me share an Idea and give cooperation during conducting a survey. I am also grateful to many of my friend who helped me by discussing Software quality issues and contribute their idea. Lastly, but not least I wish to thank to my family for their endless support and confidence and for regularly reminding me that I study for future live, and not the other way around.

Many thanks to all of you!

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ABSTRACT

Quality has become essential for ensuring that a software company's product meet the customer needs and wants. Although they sold well on the market, they also have need for improvements. Today, improving software quality has become one of the requirements that a software company need to focus before their product will be deliver to the customers. In software engineering fields, there are many approaches that suggest ways for improving a quality of software but each approaches defines software quality with different ideas, views and characteristics.

Some of software companies have developed their own approach that provides a guideline for measuring and monitoring quality. Often the approach is unconsciously selected as a side effect of some other business decision. Over the past few years, many quality models have been built by a number of researchers to aid in this effort. For instance, McCall's models was proposed by McCall, Richards and Walters in 1977, ISO 9126 models was proposed by the International Organization for Standardization (ISO) in 1992, Capability Maturity Model (CMM) was proposed by Software Engineering Institute (SEI) and used by the software community during 1991.

This research was identifying the existing approach for improving software quality that proposed by previous researchers in software engineering fields. Then, investigation was done in order to identify the approaches currently used by software companies in Malaysia. Those approaches were analyzed in order to find out the strength and drawback. The results of this research was summarized as a conclusion and make a recommendation to help software companies improve their quality of software product an affordable manner while also keeping business goals in focus.