

Universiti Teknologi MARA

An Empirical Investigation of Software  
Quality Improvement

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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.