THE OPTIMIZED APPLICATION AND THE RISK ANALYSIS ON SOFTWARE RELEASE TIME PROBLEM

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ABSTRACT

In developing software, a testing to verify and validate the software which has been built is one of many elements that should be applied with a good planning. This work should be implemented because the testing of software needs a lot of resources, such as times and the expense of labor cost.

Before software is released to a market, software must be free in errors which might happen. It is the reason why it is needed a process of testing of the application. Therefore the testing can take a lot of times and the application cannot be released to the market on time. The process of testing should be decided when it is over, so the software can be release to customers.

The managements are often faced on the dilemma when they should make a decision when the process of testing of software which is being developed is final. Then the software is ready for the markets. This action should be decided because it will affect to the reliability and the price of the software.

Mostly the preliminary study about the optimization of software release time uses Expected Cost (EC). Furthermore, the attention of management focuses on the Actual Cost (AC) rather than EC. In fact, minimizing the value of EC also doesn’t guarantee to fulfill the needs of AC.

In this thesis, it will be explained about the uncertainty element of the cost of software and the affect in optimizing software release time. The case example will be given to show the important things as the result of the uncertainty element of the software cost in optimizing the software release time. It is hoped the result will avoid the management to make an incorrect decision and jeopardize the development of software.

Keyword : Cost estimation, nonhomogeneous Poisson process (NHPP), reliability, software release, time estimation.