

# Upaya peningkatan proses pengembangan sistem aplikasi pada Bank X melalui penerapan capability maturity model = Process improvement effort of software engineering in Bank X through capability maturity model implementation

Agus Sugiono, author

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## Abstrak

Pengembangan sistem aplikasi sangat diperlukan oleh Bank X untuk memperlancar dan mempermudah proses bisnis Bank X yang vital. Walaupun demikian, pada proses pengembangan sistem aplikasi tersebut terkadang masih mendapat beberapa hambatan. Hambatan tersebut dapat berupa kualitas yang tidak sesuai standar, biaya yang melebihi anggaran dan melampaunya waktu pengembangan sistem aplikasi. Maka dilakukanlah upaya peningkatan proses pengembangan sistem aplikasi dengan menerapkan Capability Maturity Model (CMM) sebagai suatu standar proses pengembangan sistem aplikasi.

Penerapan CMM dilakukan dengan menentukan maturity level berdasarkan area proses CMM repeatable level, mengidentifikasi gap antara CMM dan proses pengembangan sistem aplikasi pada Bank X, dan merumuskan penanganan gap untuk mencapai repeatable level. Pengembangan alat ukur yang detail dilakukan untuk mendapatkan hasil pengukuran maturity level yang lebih valid. Alat ukur tersebut terdiri dari proses wawancara dan tinjauan dokumen.

Dari proses pengukuran didapatkan hasil maturity level Bank X yaitu sebesar 87% untuk repeatable level. Sedangkan dari proses gap analysis dapat diketahui terdapat 25% key practice yang baru sebagian terlaksana dan 3% belum terlaksana. Dalam upaya penanganan gap tersebut sekaligus untuk meningkatkan proses pengembangan sistem aplikasi dirumuskan beberapa usulan yaitu pelaksanaan training dan orientasi terkait area proses CMM, standar pengukuran status pengembangan, prosedur configuration library, SCM Plan, penerapan tools pengujian sistem aplikasi, dan otomasi prosedur pengembangan sistem aplikasi.

.....Software engineering is urgently required by Bank X to make its important business process faster and easier. In the other hand, Bank X's software engineering process sometimes gets some troubles. Those troubles are overbudget, overtime, and inappropriate quality with the requirement. Therefore, process improvement effort is tried to be done through Capability Maturity Model (CMM) implementation as a software engineering standard process.

CMM is implemented by measuring the maturity level of software engineering based on key process area of CMM repeatable level, then identifying the gap between CMM and Bank X's software engineering process, and formulazing the gap treatment to achieve repeatable level of maturity. Developing the detail measurement tool is conducted to get more appropriate result of maturity level. The measurement tool consists interview and document review processes.

From the measument process, we can know that the maturity level of its software engineering is 87% in CMM repeatable level. Meanwhile, from gap analysis, it is showed that 25% of CMM key practices in repeatable level have been partially implemented and 3% have not been impelemented. In order to handle those gaps and to improve software engineering process, some recommendations are formulated. The recommendations are training and orientation about key process areas CMM, measurement standard of developing activity status, configuration library procedure, SCM plan, automation testing tools

implementation, and automation of software engineering procedure.