

**REQUIREMENT PRIORITIZATION FOR SOFTWARE RELEASE PLANNING
BASED ON CUSTOMER VALUE WITH ANALYTIC HIERARCHY PROCESS**

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ABSTRACT

The requirement prioritization process is a big challenge in a software company that develops software using the incremental model. Because of limitations in efforts and time, the proper requirements in proper time must be selected for implementation. A requirement prioritization framework with customer value base is introduced in this work. Four factors of customer value are extracted from the requirements, including business rules, revenue, process improvement, and technology. Analytic Hierarchy Process is applied for calculating's weighting factors of customer value. The number of requirements is reduced for minimizing the complexity of the proposed framework by using a filtration process. Key customer and requirement types are used as the controlled parameters in this process. The result of this study is a ranking list of requirements for a software release project. The list is ordered by the score manipulated with the weighting factors of the customer value. The highest score means the highest priority. Framework performance is evaluated by stakeholders of the software release project. The stakeholders agree and accept that the proposed framework could enhance the existing manual process and customer satisfaction.

**KEY WORDS: REQUIREMENT PRIORITIZATION / CUSTOMER VALUE /
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