Investigation of Stakeholder Analysis in Requirement Prioritization Techniques

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Requirement Prioritization is considered as an essential process that leads to the production of a successful system by presenting the prime requirements that need to be developed. Stakeholder Analysis (SA) plays a vital role in the requirement prioritization process where it aims to select and identify the impact value of each stakeholder, depending on their significance along with the overall impact of requirements posed by them that may have on the project's success. Thus, the aim of this paper is to investigate the stakeholder analysis in existing requirement prioritization techniques, in order to enhance the performance of existing RP techniques in producing accurate result. All existing RP techniques are critically analyzed to determine the existence of SA in their processes, presenting the execution steps that are used to performed SA process in their prioritization process. The findings of this study show that out of 66 techniques, there are only 5 techniques (evolve, mathematical programming, VIRP, RUPA and PHandler) that conducted the SA in their prioritization processes. However, the result presents that these five techniques still face issues of time consuming, manual and requiring the involvement of the experts in conducting SA process.

Keywords: Requirements, Prioritization, Stakeholders.