

## ABSTRACT

*Determining the methodology in designing and building software is not an easy thing because it will determine the quality of the product to be developed as well as other needs. The phenomenon started when software development management changed from the waterfall method to the scrum method. The results of interviews with all project managers and several technology teams showed that there were several iterations that did not go according to plan for several reasons, namely sudden changes in needs and no priority scale which caused a decrease in team productivity and decreased user interest in the software due to the slow release process. . In connection with this phenomenon, this study aims to determine the effectiveness of software development at PT XYZ using the scrum method.*

*This study uses 12 indicators in the five Critical Success Factors, namely Management Commitment, Organizational Environment, Team Environment, Team Capability, Customer Involvement, Project Management Process, Project Definition process, Agile Software Techniques, Delivery Strategy, Project Nature, Project Type and Project Schedules. These 12 indicators are considered a measure of the effectiveness of the scrum method. Four factors are considered as the success of software development project management, namely perception quality, perception scope, perception cost and perception time.*

*This research uses quantitative methods. Data was collected by conducting a survey using a questionnaire distributed to all members of the technology team of PT XYZ as many as 54 respondents via google form. The method used is Structural Equation Modeling (SEM) using the SmartPLS application. Of the 12 indicators in the five Critical Success Factors, there are seven indicators that have a significant influence, namely Management Commitment, Organizational Environment, Team Environment, Delivery Strategy, Project Nature, Project Type and Project Schedule. The results showed that the scrum method was quite effective for software development carried out by the technology team of PT XYZ. PT XYZ is advised to maintain, evaluate and also improve the factors that are in accordance with the current scrum method. Then it needs to be improved again from management commitment, organizational and team environment, project management processes and process definition, project types and project scheduling which will have an impact on increasing the effectiveness of software development using the scrum method so as to increase employee productivity and the quality of the software created. . The results of the study are expected to be used as evaluation material to pay attention to other indicators that have not had a significant effect and maintain and improve the two factors that have had a significant influence.*

*Keywords: Scrum, Critical Success Factors, Project Management*