

## Abstract

Defining requirements in the phase of requirements engineering is needed to minimize interpretation errors between the stakeholders involved. To provide a common perspective on the company's business processes, certain notations are used. One of the commonly used notations is Business Process Modeling Notation (BPMN). But in practice, problems arise in BPMN modeling that often does not represent the business processes that should be. This is due to a number of things, among others, the complexity of BPMN notation and the comprehensive specifications of BPMN notation, giving rise to many perceptions that influence the description of requirements into BPMN.

From these problems can be solved by using the semantic model of business processes into an ontology that can explicitly represent BPMN specifications. Requirements information can be stored in accordance with BPMN artifacts and able to provide formal definitions used as a knowledge base. Therefore ontology can be applied in representing the BPMN metamodel so as to provide accuracy in modeling business processes. This can reduce the effort needed in the modeling process and improve the quality of BPMN produced. Validation done by using a reasoning pellet and calculation of the accuracy of semantic similarity which obtained the best accuracy of 90.47% at the threshold 0.4, 0.5 and 0.6.

*Keyword : BPMN, requirement engineering, semantik, requirement ontology.*