

ABSTRACT:

In the data mining field, association rules are discovered having domain knowledge specified as a minimum support threshold. The accuracy in setting up this threshold directly influences the number and the quality of association rules discovered. Often, the number of association rules, even though large in number, misses some interesting rules and the rules' quality necessitates further analysis. As a result, decision making using these rules could lead to risky actions. We propose a framework to discover domain knowledge report as coherent rules. Coherent rules are discovered based on the properties of propositional logic, and therefore, requires no background knowledge to generate them. From the coherent rules discovered, association rules can be derived objectively and directly without knowing the level of minimum support threshold required. We provide analysis of the rules compare to those discovered via the a priori.