

**Name:** RAZAFINTSALAMA Idealy Princia

**Name of your L1:** SOK Sabaye

**Paper title:** Process Mining for Contextual Situations Adaptation using Goal-Heuristic Algorithm

**Source:** Google scholar

**Keywords specific to the paper:** Contextual situation adaptation, Process mining, Reconfiguration, Security policy models

**Summary:**

The study proposed here focuses on a process mining method that analyses the business model on the basis of the objective scenario, based on the objective scenario, which enables new requirements to be provided consistently for unforeseen situations.

Indeed, to survive in complex and dynamic environments, companies need to be able to adapt and interact with these environments. However, the problem is that there is a limit to how often and how severely new external problems in a complex environment. In addition, the study highlights the lack of systematization of the services for dynamic processing of business models and system integration that exist today, which are just based on extracting databases database extraction, dependency testing, etc. In addition, the problem with the studies that already exist studies on external situation assessment is that they don't support the abstraction technology abstraction technology required for problem recognition but define specific problem specific problem contexts using mainly the resource conditions of the performance environment. In addition to being costly, these process mining methods are time-consuming, fail to assess unforeseen situations arising during execution and are largely limited to modifications.

The idea is therefore to propose a new approach to process mining based on scenario analysis, using an objective heuristic algorithm to find a suitable model that will analyse changes. This heuristic algorithm will adjust the business process according to the defined objectives and searches for suitable models among existing and new goal scenarios.

To do this, we first need to perform a process mining of existing processes, then an analysis using the 3-step goal heuristic algorithm (Existing process exploration, Analysis using the objective heuristic algorithm, Evaluation) and finally, an evaluation. Evaluation is performed by analysing the similarity, importance and association of process models in a specific context. These analyses make it possible to:

- Detect problems caused by changing requirements,
- Determine necessary adjustments,
- Plan reconfiguration

All with the aim of ensuring service continuity, surviving in complex and environments, and thus gain a competitive edge. The use of this algorithm makes it possible to quickly understand potential problems linked to change, and to anticipate adaptation and anticipate adaptation, enabling the user to apply a rapid and effective decision in unforeseen situations from the outset.

**Supported by a software application? (If yes, provide more details)**

No text discusses the use of process mining in the context of adapting to contextual situations using a goal-heuristic algorithm. However, details about a specific software application supporting this work are not provided in the given text.