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Keywords specific to the content : iKnow, machine learning, IA, BPMN,

The software used : Windows Editor, Windows application.

Source : e.g Googlescholar.com

[BDA/Business process analysis/L2\\_AissataDIAW/L1\\_AngéliqueCHAGNEAU/L0\\_SAMAROOSharmila/an inferencial knowledge.pdf at main · BigData2024/BDA \(github.com\)](#)

Title – Article : An inferential knowledge model for the digitalization and automation of business process analysis.

This article was written by Anne Fübl, Volker Nissen, Franz Felix Fübl and Simon Dopf. It deals with the need to digitalize certain aspect of the companies to remain competitive. This is why they used iKnow, as a database, which is a digital learning process element. In additional, it helps to improve future business process model by adding data, knowledge and inference-initiated reasoning. On the other hand, to offer a better solution, iKnow needs to continually add information and experts help when there are lot of solutions to solve several constraints.

They used iKnow to :

- Knowledge processing and decision support within consulting project.
- As a tool capable to deducing information from business process analysis.
- Creates information and solve problems

The application of iKnow : 4 levels

- *L4 input layer* : collect data via simple query from an external source.
- *L3 data transfer layer* : represents an influencing factor in the knowledge base model.
- *L2 information processing layer* : collects data by analyzing the association with neighboring
- *L1 abstraction layer* : element that using a deduction algorithm

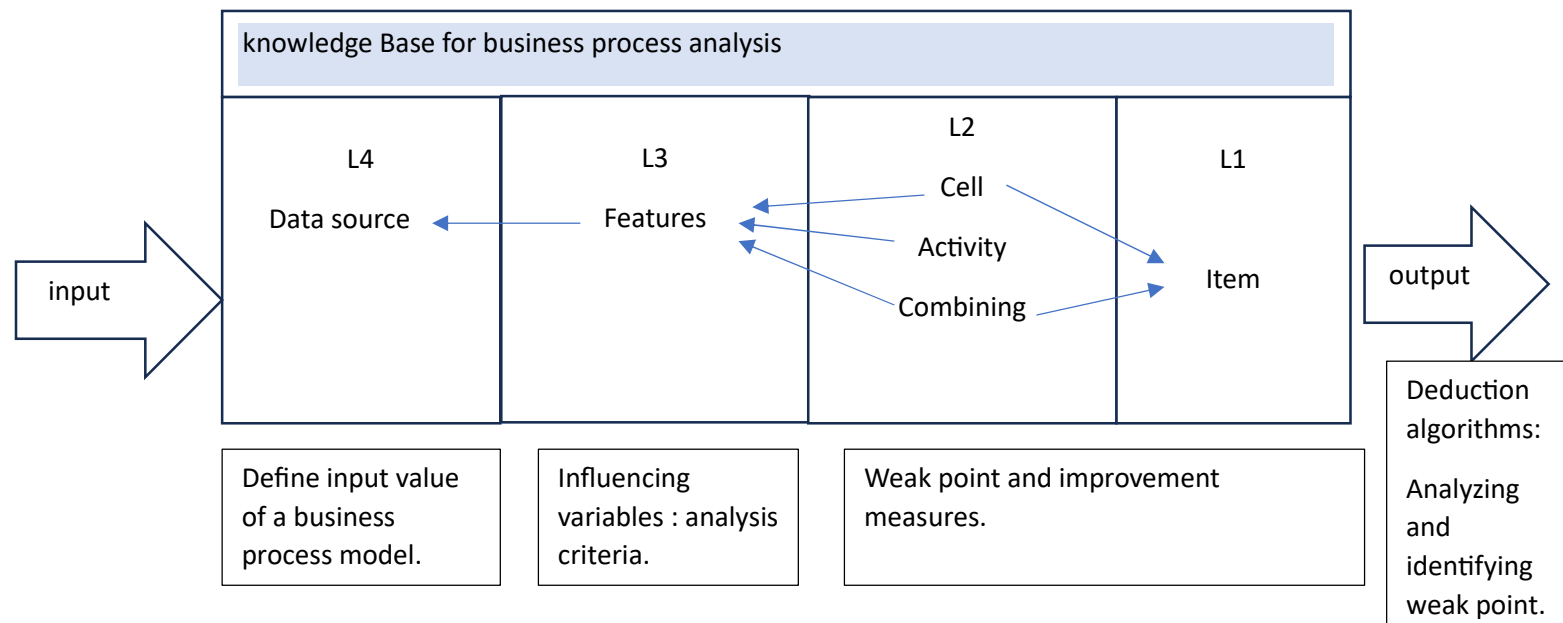


Table : extract from the article, with my own adaptation.

Depending to the data used, iKnow offers 2 views for understanding the model :

- *Descriptive view : explicit knowledge*

*Deciding view* : generating knowledge with variables that influencing the sector.

To conclude, the main goal of this article is to understand the process of using iKnow to deduce the algorithm and then analyze its weak point, to provide a “find” solution. However, to be effective, a lot of data is needed to correct the quality of the analyses. Moreover, sometime it need the help of expert, who will introduce his knowledge in the following case :

- when there are many constraints
- and when no solution proposed.

In other hand, they used Windows’s interface, to do a prototype that allow to answer to the following question:

“Is the process already optimized ?”, the result value can be “true” or “false” and goes throw this procedure for several questions.

Finally, Windows interface helps to know the weaknesses in the chosen criteria and enable them to adapt the process.