**FINANCE PROCESS AUTOMATION WITH NUMBERICAL DECISION MAKING**

Name: István / Surname: Vancsura / ORCID 0000-0002-5402-8186

Place of work: Budapest, Hungary, Kodolányi János University

E-mail address: [vancsura.pisti@gmail.com](mailto:vancsura.pisti@gmail.com) / Mobile phone numbers: +36 20 276 9700

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The article will provide an in-depth discussion (\*) on the advantages of numerical decision making in banking transactions, as well as its differences with binary (logical rule-based) decision making. It will highlight the importance (\*) of using numerical decision making in today's digital age, and how (\*) it can improve the overall efficiency (\*), security (\*), and transparency (\*) of banking operations.

Numerical decision making is based on data-driven analysis, and it allows banks to make informed (\*) decisions, reducing (\*) the risk of fraud. It enables banks to continuously improve (\*) and optimize (\*) their transaction processes and better (\*) manage risks. On the other hand, binary decision making is a simplified approach of decision making that only considers two options in general, such as yes or no, pass or fail – like in the classic mathematical logic. Numeric decision produce fuzzy-like and/or quantum-like interpretation possibilities.

Numerical decision-making is based on the application of mathematical and statistical models (more and more AI-approaches: like similarity analyses), which allows banks to determine the best (\*) decision based on data. With the help of these models, banks can determine the probability (\*) of transactions being related to fraud and thus determine the necessary (\*) compliance in time.

The article will explain how (\*) numerical decision making can be built and how (\*) it can help banks better (\*) regulate the control mechanisms for transactions and increase (\*) financial transparency in an automated way. By using data-driven decision making, banks can have better (\*) oversight of transaction visibility and easier (\*) enforcement of regulations. This method also allows banks to better (\*) understand their customers' needs and personalize (\*) their services more effectively, thereby increasing (\*) financial engagement.

In conclusion, the article will show that numerical decision making is crucial (\*) for banks to stay ahead in a rapidly changing financial landscape. It provides a more comprehensive (\*) and accurate (\*) approach to decision making compared to binary decision making, and helps banks improve (\*) their overall operations.

The keywords with (\*) signs will explain in the full-text-version and in the oral presentation through further details. Asterisks have been set where proofs and/or benchmarking processes should be presented in future.

The numerical decision-making works as follows based on similarity analyses (https://miau.my-x.hu/myx-free/): …

Demo: https://miau.my-x.hu/miau/296/risk\_index\_naive\_regression\_coco.xlsx