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**Price-performance analysis for server procurement**

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**Abstract**

History: The AI-based, automated price-performance ratio analysis is a central topic of the interinstitutional and transdisciplinary-oriented MY-X research team (c.f. <https://miau.my-x.hu/miau2009/index.php3?x=e0&string=price>). The focus of the own experiments is the optimized anti-discrimination or term-creation-oriented evaluation process based on stair-case function in frame of self-validating similarity analyses – because of their context-free characteristics.

Background and benchmarks: The direct goal of the analysis is to present a manual modelling that facilitates a purchase decision, in which we derive the price-performance of large company servers (objects) in an optimized way, following the Knuth principle (cf. science/knowledge is what can be transcribed into source code), where the market is functioning in a rational way and set seemingly equilibrium-oriented prices. These prices have however a kind of sensitivity interval. An equilibrium-oriented price can have a position near to the bottom or the top of the sensitivity interval. This position can be derived based on a stepwise technique for each server. This stepwise technique delivers new attributes for the price-performance-analysis, where each equilibrium price seems to have the same advantages. The antidiscriminative optimization delivers the real ranking of the servers.

The indirect goal is twofold: on the one hand, to prepare for the thesis that requires quality text creation, and on the other hand, to pave the way (for anyone) towards automation with the manual foundation.

Nowadays, IT procurement and public procurement are present in almost every company and institution, not to mention that we also buy products of this kind as individuals (e.g. notebooks, motherboards, routers, processors, etc.), but it is certain that we never make an objective decision - despite the simplicity of its methodology, it is not part of public education (yet). Evolutionarily, we tend to make decisions based on emotions or to listen to persuasive marketing techniques, and in such cases a subjective decision is made in every case, because there is no other way to make it. To avoid this, I will use two modelling methods to show how we can make decisions more efficiently/objectively. I will work with real data I chose a specific type from one of Dell's enterprise server families for this purpose.

The result: With this optimalized and validated solution, the right decision can be made to buy servers. In nowadays, it is getting more and more important to make right decisions and “spend the money well”, especially in companies, because they are spending a huge amount of money for general procurement. Also, what is not needed, should not buy it, so in this case money can be saved. This modelling is suitable for every procurement, when we are searching for the right item (object) and we can write on some features of it (attribution).

Future aspects: After closing simplier manual modelling cases, a more complex information system designing case will be analyzed and some of the base processes will be half-automated (datasheet converting, ranking, and uploading) in frame of a bachelor's degree/thesis a software will be available to access as a standalone application.