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Valuation in the age of Artificial Intelligence

The use of artificial intelligence (AI) is a strategic issue for valuation practitioners due to the rapid development and significant potential of AI tools, which raise the question of their use in the valuation process. This topic was discussed by expert valuers at the national congress of forensic accountants held in October in Bordeaux. It also features prominently in the current work of the IVSC[1] .

Opportunities and limitations of AI

To begin with, it is important to recall that AI is generally categorized into two types[2]: **predictive AI**, used to analyze large volumes of structured data and capable, for example, of identifying potential risks and opportunities in a market, and **generative AI**, based on language models (LLM - *Large Language Model*; SLM - *Small Language Model)* which learn from the data they are given and can create new content (text, image, videos), such as ChatGPT or the French model MISTRAL.

In general, AI allows for the use of highly complex models and the processing of large amount of unstructured data, and in some cases, with learning capabilities – something traditional mathematical or statistical models cannot do. Moreover, the model interacts with human language, which is unprecedented.

When applied to valuation, the use of AI raises many questions: to what extent can we rely on AI? How can it be used effectively?

AI enables significant productivity gains through the automation of standard and repetitive valuation tasks. There are already tools that use NLP (Natural Language Processing)[3] to synthesize large data sets and, for example, produce a SWOT matrix[4], or suggest an initial sample of comparable listed companies or transactions.

While there is currently no "push-button" valuation tool, development is avancing very rapidly.

However, it is important to be aware of AI's limitations:

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[1] International Valuation Standards Council.
[2] A distinction is also made between *Machine Learning* (automatic learning) and *Deep Learning* (which uses deep neural networks to simulate the human brain's decision-making process).
[3] *Natural Language Processing* (NLP): allows textual data (financial reports, legal documents) to be analyzed to extract key information.
[4] Str*engths Weaknesses Opportunities Threats*

- **lack of traceability and transparency**, which can make AI tools true "black boxes." The valuer must qualify the information used, know and verify the sources, test the reliability of the information, and explain the results obtained.
- **Inability to account for the complexity of the context and the specificities of the company or asset being valued.** AI makes it possible to analyze large data sets, but not necessarily in a way that is appropriate for valuation purposes.
- **risk of losing human judgment** by relying on a standardized and overly automated process that can lead to "hallucinations," where the AI-generated response appears structured and credible, but is completely incorrect.

It is crucial to remember that only the professional judgment of the valuer (sometimes referred to Human Intelligence - HI) and control over the entire valuation process can mitigate these risks. The valuer cannot delegate responsibility to AI.

IVS standards and the use of technology in valuation

This is also the conclusion reached by the IVSC, which published a discussion paper in November 2022 on the use of *Automated Valuation Models* (AVMs)[5] and has updated its IVS 2025 valuation standards, effective as of January 31, 2025.

In the IVS 2025, standard IVS 105 "*Valuation Models"* states in its introduction that an AVM cannot be compliant with IVS due to the absence **of professional judgment**[6] (since an AVM cannot provide a valuation opinion). This standard also emphasizes that the selected valuation model must be "transparent," meaning that all individuals preparing or using the model must understand how it works and its limitations[7] . This reminder is particularly important when using complex AI models

With regard to the principle of transparency, IVS Standard 104 "*Data and Inputs*" specifies that the source, selection, and use of significant data and assumptions must be explained, justified, and documented (§ 50.01). The documentation must be sufficient to allow the valuer, applying professional judgment, to understand why these data were deemed relevant and why the assumptions were considered reasonable (§ 50.02).

Conclusion

Artificial intelligence undoubtedly represents a very promising advancement in the field of valuation, offering powerful tools for analysis and automation. However, it remains only a tool, and its use cannot replace the professional judgment of the valuer. This is confirmed by the IVSC standards, which stress the importance of adhering to principles of transparency, traceability, and professional judgment.

[5] " A system that provides an indication of value of a specified Asset at a specified date, using calculation techniques in an automated manner"
[6] "*No model without the valuer applying professional judgment, for example an automated valuation model (AVM), can produce an IVS-compliant valuation*."
[7] See §30.01 Characteristics of an appropriate valuation model.