Challenges and Opportunities of Data Collection and Computational Analysis using AI in Real Estate Valuation

This research project amied to understand valuers' perceptions and the challenges of using AI to collect real estate data and valuation, adopting a qualitative approach. By reviewing the existing literature and analysing responses from surveys and interviews with property valuation experts, it is found that AI is widely being embraced but not necessarily at the expense of human participation.

Why the study:

- The benefits of AI applications include improving accuracy and efficiency, eliminating bias, incorporating predictive modelling, and reducing the cost of labour.
- Valuations depend on a myriad of factors and various qualitative and quantitative data sources. Privacy and confidentiality provisions, e.g., Incentive Deed, Turnover Sales Data, can create challenges when applying AI to collecting essential data for valuation.

What we did:

- We adopt a qualitative research approach, reviewing the existing literature and analysing responses from surveys and interviews with property valuation experts on AI and Valuation.

What we found:

- AI plays an important role in modern valuation practices through improving efficiency, accuracy, data collection and processing, reducing human error and business costs in real estate valuation.
- AI can be used as a tool to facilitate analysis, but not to replace human judgment altogether in the short term.
- Using AI in commercial valuation is a challenge due to a lack of essential information, e.g., an incentive deed.

What this means:

- AI is transforming the valuation profession, offering increased accuracy, efficiency, and predictive power, as well as opening up new opportunities for valuers to offer advanced services such as predictive analytics, real-time market monitoring, and dynamic asset valuation models that can be tailored to specific client needs. However, it also presents challenges related to transparency, trust, data ethics, and skill requirements. Valuers should understand the roles AI plays in valuation and its limitations.
- AI developers play critical roles in designing and selecting the appropriate machine learning algorithms that will drive the AI's valuation models. The AI developers should understand the challenges of using AI to collect real estate data to ensure the data collected is accurate, complete and reliable. The AI developers should also implement robust security protocols to protect sensitive data used in AI valuation models.
- Valuation firms need to recognise the unstoppable AI generation in the valuation process by combining robust technical solutions, comprehensive policies and ongoing monitoring measures to effectively leverage AI in property valuation.

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