An agent based green decision making model for sustainable information technology governance

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ABSTRACT

Information technology governance are rules and regulation established by management to ensure that practitioners use IT infrastructure in an effective and efficient manner, but with the increase of energy consumption and environmental impact associated with IT infrastructure and services, energy efficiency and the concern for the environmental is becoming a critical concern in management implementing IT governance strategies. Thus there is need for a model that can assist management in making decisions on how to realize a sustainable IT governance strategy in their organisations. Therefore this paper proposed an agent based Green decision making model for sustainable information technology governance. The methodology adopted in this paper involves the synthesis and extraction of secondary data from existing literatures. The proposed model comprises of Green decision making variables, Green process, multi-software agents and knowledge base aimed to establish a sustainable IT governance strategy in organisations. Findings from this research paper shows that the developed model can assist management in making decisions related to Green and sustainable practices with the support from multi-software agents to assist management in IT governance implementation. The developed model can be used as a guide to management in attaining a Green and sustainable organisation.