World Academy of Science, Engineering and Technology
International Journal of Social and Business Sciences
Vol:18, No:01, 2024

Using Risk Management Indicators in Decision Tree Analysis

Authors : Adel Ali Elshaibani

Abstract : Risk management indicators augment the reporting infrastructure, particularly for the board and senior management, to identify, monitor, and manage risks. This enhancement facilitates improved decision-making throughout the banking organization. Decision tree analysis is a tool that visually outlines potential outcomes, costs, and consequences of complex decisions. It is particularly beneficial for analyzing quantitative data and making decisions based on numerical values. By calculating the expected value of each outcome, decision tree analysis can help assess the best course of action. In the context of banking, decision tree analysis can assist lenders in evaluating a customer's creditworthiness, thereby preventing losses. However, applying these tools in developing countries may face several limitations, such as data availability, lack of technological infrastructure and resources, lack of skilled professionals, cultural factors, and cost. Moreover, decision trees can create overly complex models that do not generalize well to new data, known as overfitting. They can also be sensitive to small changes in the data, which can result in different tree structures and can become computationally expensive when dealing with large datasets. In conclusion, while risk management indicators and decision tree analysis are beneficial for decision-making in banks, their effectiveness is contingent upon how they are implemented and utilized by the board of directors, especially in the context of developing countries. It's important to consider these limitations when planning to implement these tools in developing countries.

Keywords : risk management indicators, decision tree analysis, developing countries, board of directors, bank performance, risk management strategy, banking institutions
Conference Title : ICDARMS 2024 : International Conference on Decision Analysis and Risk Management Strategy
Conference Location : London, United Kingdom
Conference Dates : January 15-16, 2024