

**TANDEM: An analytical diagnostics tool  
for the assessment of decision making practices**

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In an era of economic uncertainty, well publicised corporate failures have raised issues of social corporate responsibility, business ethics and sustainability. Whilst the current economic downturn remains a challenge, businesses face complex and ill-defined decision problems. In an increasingly competitive environment combined with information overload, managers strive to take better decisions than ever before, in a short period of time and without much support. As recent consultancy reports suggest however, a crisis in decision making has been emerging.

Research in organisational decision making suggests that managers rarely do they take the time to reflect and learn from failures in decision making. This work seeks to address this issue by generating actionable knowledge to help businesses improve their decision making performance. In-depth interviews with decision analysts have been conducted to explore criteria for assessing decision making practices and identify examples of good practice. The results highlight a number of decision competencies and how to achieve them.

The research findings have led to the development of the analytical diagnostics tool TANDEM (Tool-based ANalysis for assessing DEcision Making). TANDEM is an intelligent decision-making support system that combines the analytical capabilities of multiple criteria decision analysis with the reasoning functionalities of artificial intelligence techniques. It is intended to periodically review decision making effectiveness and communicate its results in natural language form. Its main focus is on decision lifecycles that are initiated when the senior management team of a company need to decide about funding a new initiative. The work is in collaboration with a leading UK telecom company and the research has been applied to the telecommunications sector.