



## **Alternative Approaches To Knowledge Discovery in Official Statistics**

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### **Abstract**

Statistical agencies accumulate a large amount of data from recurring surveys and administrative records over a number of years. The data is analysed periodically and results are provided to the general public. With the amount of data produced on a regular basis, historical data become more difficult to analyse using standard systems designed for the statistical publications. Users both internal and external to the statistical agencies usually have requests for historical data that is not published. Making information more broadly and easily available to more users throughout the agency and beyond the agency to stakeholders is becoming of a more strategic importance. There are techniques that are available and are considered by Statistics South Africa in an effort to enhance analytical capability for both technical and non-technical users. The techniques considered include online analytical processing (OLAP), dimensionally aware relational schemas, geographic data mining and knowledge discovery. These approaches will help the agency to make the most out of the available data. In order to achieve the best results, development of the statistical indicators for decision support aimed at policy decisions or quality management decisions as well as creation of data marts become essential.

**Keywords:** Statistical indicators; knowledge discovery; DSS; OLAP