

Methodological proposal for decision making supported on ANP and multidimensional database

Duran C.A.

Palominos F.E.

Decision making in a system of private companies and public organizations can be complex, because a large amount of information is permanently transferred between them, which may be relevant to increase competitiveness. For managers to comply with the defined strategic and operational objectives and choose effective alternatives, it is fundamental to have decision support systems (DSS) that calculate indicators for a large amount of transactional data, which have meaning. In this paper, based on the Analytical Networking Methodology (ANP) applied to the opinion of experts, the key KPIs related to the technological and risk aspects for the actors identified, is presented a proposal for the decision-making process, which are then implemented in OLAP cubes on multidimensional databases of the ROLAP type. © 2018 IEEE.

ANP

information system

KPI

OLAP

Artificial intelligence

Automation

Decision support systems

Industry 4.0

Information systems

Process control

Decision making process

Decision support system (dss)

Large amounts

Multidimensional database

OLAP

Private companies

Public organizations

Transactional data

Decision making