

# THE EXECUTIVE SUPPORT SYSTEMS AS INNOVATIVE TOOLS FOR THE EVALUATION OF FINANCIAL PROJECTS

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**Abstract:** *ESS AND ISS as part of DSS have a positive impact both on company's performances and its collaboration with its partners. In order to evaluate the performance of economic enterprises SITIRATING package, one should deal with and make : the Evaluation of the company's development trend, the Evaluation of the Financial Capacity, the Evaluation of the resources' administration( financial, human), Risks evaluation (Operational, Financial, of Credit), the Calculation of the discount coefficient for the debt on the secondary debt market, Rating reports simulation; the Prognosis simulation regarding the business plan, Written reports and graphs resulted from the analysis of the company's financial records or the studied activity sector.*

## KEY WORDS:

Decision Support Systems(DSS); Executive Information Systems (EIS); Executive Support Systems(ESS); Rating; SITIRATING Package, Portal technology;

## 1. Introduction

The **Decision Support System (DSS)** is a class of information systems that support business and organizational decision-making activities. A properly designed DSS is an interactive software-based system intended to help decision makers compile useful information from a combination of raw data, documents, personal knowledge, or business models to identify and solve problems and make decisions. Generally a DSS is a computer system providing both problem solving and communicator's capabilities for semistructured /unstructured problems [Source [1], [2],[3]].

Basic characteristics of DDS (see fig. no.1):

- .Used by managers (or decision makers);
- . Used to make decisions;
- . Used to support, not to replace, people;
- .Used when the decision is semistructured or unstructured;
- .May incorporate database of some sort;
- May incorporate models;

Typical information that a decision support application might gather and present are:

- an inventory of all your current information assets (including legacy and relational data sources, cubes, data warehouses, and data marts),
- comparative sales figures between one week and the next one,
- projected revenue figures based on new product sales assumptions,
- accessing all your current information assets, including legacy and relational data sources, cubes, data warehouses, and data marts,
- The consequences of different decision alternatives, given past experience in a context that is described

**An Executive Information System (EIS)** is a set of management tools supporting the information and decision-making needs of management by combining information available within the organisation with external information in an analytical framework. EIS is targeted according to the management needs to quickly assess the status of a business or section of business. These packages are aimed firmly at the type of the business user, who needs instant and up to date understanding of critical business information to support decision making. The components of an EIS can typically be classified as: hardware, software, telecommunication, applications

The basic computer hardware needed for a typical EIS includes four components:

- Input data-entry devices. These devices allow the executive to enter, verify, and update data immediately;
- The central processing unit, which is the kernel because it controls the other computer system components;
- Data storage files. The executive can use this part to save useful business information, and this part also help the executive to search historical business information easily;
- Output devices, which provide a visual or permanent record for the executive to save or read. This device refers to the visual output device or printer.

The basic software needed for a typical EIS includes four components:

- Text base software. The most common form of text are probably documents;
- Database. Heterogeneous databases residing on a range of vendor-specific and open computer platforms help executives access both internal and external data;
- Graphic base. Graphics can turn volumes of text and statistics into visual information for executives;
- Model base. The EIS models contain routine and special statistical, financial, and other quantitative analysis.

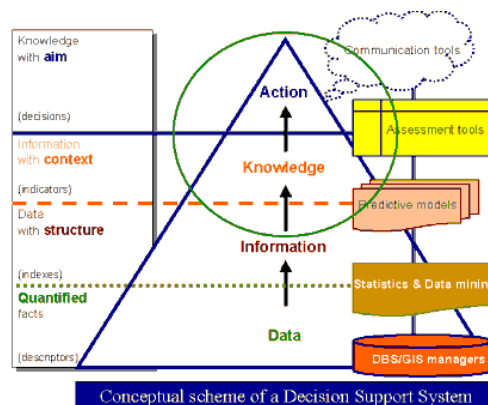


Fig. no. 1 Conceptual scheme of a Decision Support System [ Source [3]]

**Definition: Executive Support System (ESS)** is a reporting software tool that allows you to turn your organization's data into useful summarized reports. These reports are generally used by executive level managers, for quick access to reports coming from all company levels and departments such as billing, cost accounting, staffing, scheduling, and more. In addition to providing quick access to organized data from departments, some Executive Support System tools also provide analysis tools that predicts a series

of performance outcomes over time using the input data. This type of ESS is useful to executives as it provides possible outcomes and quick reference to statistics and numbers needed for the decision-making.

While a complete DSS will have efficient links to external large databases and advanced models, an ESS focuses only on interactive and executive assessment tools, those which can be used personally by end-users. An ESS requires a previous expert work filtering information and knowledge into meaningful indicators and tools. Recent developments on ESS and DSS tend to integrate the multiple decisions taken by the institution, so they could become Organisational DSS. An ODSS is therefore a participative process, instead of a mandatory product. In the figure, the green circle represents the domain area of a typical Executive Support System.

## **2. The actual tendency- using the IT software tools in the companies**

The term “informational society” is used to describe the possible changes from all the fields of activity (economy, politics, culture, education, health, juridical, commerce, etc.) following the use of IT&C on a large scale. The support of the informational society is represented by the computer networks that provide the access to the digital stocked data, to texts, sounds and images (multimedia).

The great producers of software (Microsoft, Oracle, IBM, SAP etc.) develop technologies that could allow the developing and the creation of applications that should function within Internet/Intranet. In this respect the informational decision systems and the executive decision systems of a company comprise the next modules:

- The planning of the company’s resources (Enterprises Relationship Planning –ERP) which is a system that integrates the main economic process that take place inside the company:
  - Finances;
  - Human Resource Management;
  - Purchase;
  - Planning and monitoring of the production;
  - Sales.
- Customer Relationship Management – CRM (the whole complex of the interactions between the company and its clients. CRM facilities the offer of services through Internet, telephone, ATM/Kiosk etc.
- E-business – online business – the access on the web of ERP systems. E-business can have one of the following forms, can be divided into:
  - Business to Business (B2B);
  - Business to Customers (B2C);
  - Supply Chain Management (SCM);
  - Business Intelligence (BI) – applications meant to collect stock and adjust data in order to take decisions. BI activities such as:
    - Decision Support Systems;
    - Online Analytical Processing (OLAP)
    - Data warehouse;
    - Data Mining.

CRM systems and e-business interact with ERP components to achieve the wanted functions. In this respect, one can give examples like:

- B2C or B2B appeal ERP components to process the applications;

- Data processed by ERP are archived in data warehouses and they are processed using OLAP tools. The results of the analyses are used by BI components to take decisions and draft business plans;

- There is a strange connection between ERP, CRM and e-Business .

### **3. SITIRATING – The Executive Support System for the company’s evaluation based on the statistical analysis of the balance sheet records which the companies must send to The Ministry of Finance**

#### **3.1. To whom is SITIRATING addressed?**

- I. To the financial institutions( Stock Markets, Brokerage companies), commercial and investment banks, investment funds. These institutions can easily and rapidly obtain reports of estimated evaluation for the risks their clients are exposed.
- II. To middle sized and large companies which can easily get:
  - a rating and prognosis report of its own development.
  - a rating report of the activity report they are part of.
- III. To the foreign investors that want to begin partnerships with Romanian companies.
- IV. Leasing companies
- V. Factoring companies
- VI. To the investors or creditors wanting to transaction debts on a secondary market of debts.
- VII. To the non-governmental Organizations in case of their entering into partnership, regarding the projects, with local companies.
- VIII. To the state institutions, in case of evaluating the private partners and auctions.

#### **3.2. What does the system provide?**

- Evaluation of the company’s development trend.
- Evaluation of the development trend on activity sectors.
- Evaluation of the Financial Capacity.
- Evaluation of the resources’ administration( financial, human).
- Risks evaluation (Operational, Financial, of Credit).
- Calculation of the discount coefficient for the debt on the secondary debt market.
- Two companies’ simultaneous simulation
- Rating reports simulation
- Prognosis simulation regarding the business plan
- Written reports and graphs resulted from the analysis of the company’s financial records or the studied activity sector.

#### **3.3. Characteristics of the Rating System**

- The rating system uses 15 financial indicators, divided in five categories (Appendix No 1 ; Appendix No. 2);
- The rating system estimates the company’s market value;
- The rating system offers the simulation possibility(“auto rating”);
- The rating system offers the possibility to search the companies in the data basis using more than 20 search keys and also their combinations:
  - at the geographical level

- the activity sector
- predefined financial indicators
- risks evaluation indicators
- Performance indicators
- The rating system calculates and makes reports according to the international standards for the companies' evaluation and rating.

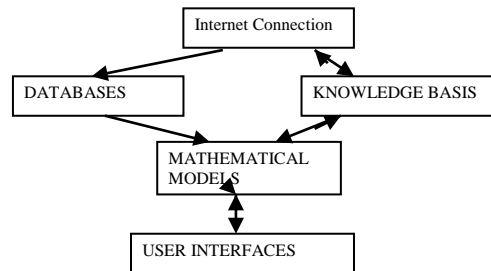


Fig. no. 2. Conceptual scheme of SITIRATING

### 3.4. Types of Reports

- **Report - Current Company:** presents the current financial indicators of the company in comparison with the international standards.
- **Report – Company's Dynamics:** presents the actual state of the company and its previous evolution, forecasting the subsequent evolution on a short and medium term.
- **Report – Comparative of the Company's Trend in comparison with the Trend of the Sector the company is part of :**
- presents the evolution and dynamics of the company's financial indicators, in comparison with the average of the indicators for the activity sector the company is part of.
- **Report - Current Sector:** presents the current financial indicators of the activity sector which is meant to be studied.
- **Report - Trend Sector:** presents the historical evolution of the activity sector meant to be studied.
- **Report – Dynamics of the activity Sector :** presents the current situation of the financial indicators belonging to the activity sector, in relation to their previous evolution, forecasting the subsequent development of the activity sector.

### 3.5. Functions:

- Loading data :
  - Searching the company ;
  - Loading data in order to identify the company ;
  - Loading data- balance sheet of the company ;
  - Viewing the loaded balance sheets ;
  - Loading data on an external support ;
  - Download folders.
- Changing data :
  - Searching the company ;
  - Changing data for the identification of the company ;
  - Changing data in the balance sheet of the company ;
  - Viewing the loaded balance sheets.
- Company's rating :

- Current rating ( for the budgetary year ) ;
- Dynamic rating (for a continuous period of budgetary years).

➤ Rating simulation

**3.6. Minimum Application Platform Required by the Application**

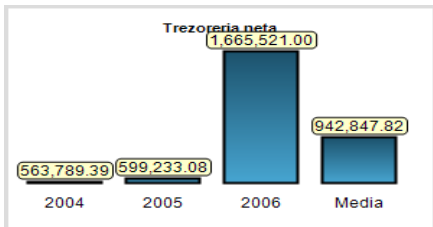
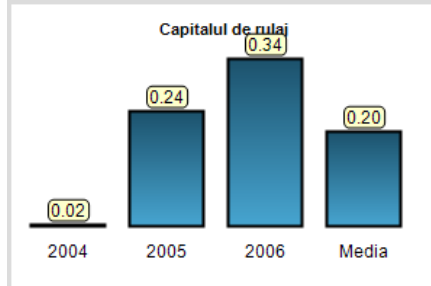
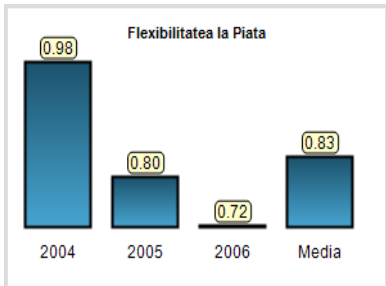
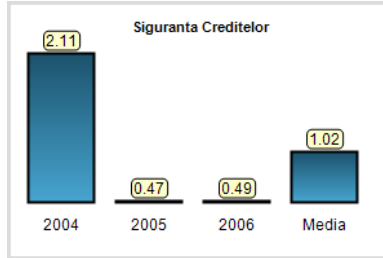
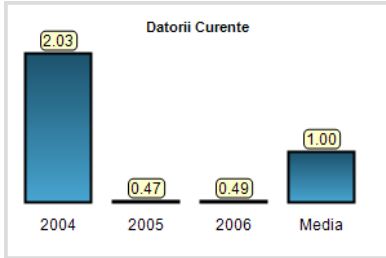
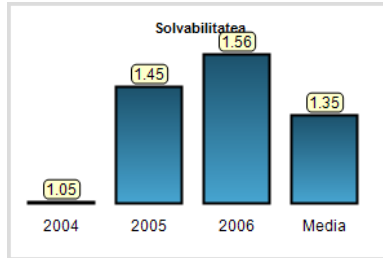
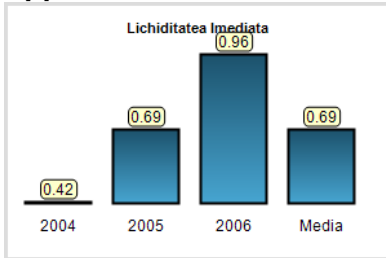
SITIRATING is a multitasking and multiuser application, which uses a data base ORACLE by an Internet connection. The software platform contains SGBD ORACLE 11g which can work on a computer network connected to the Internet.

**4. Conclusion**

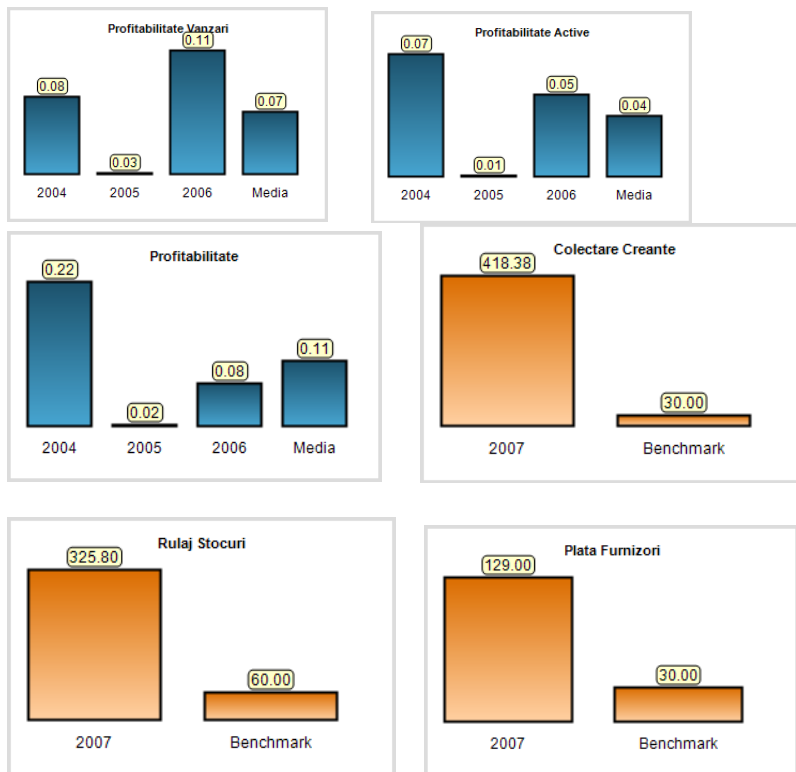
As markets become highly competitive, the ability to react quickly and decisively is more critical than ever. Selecting, developing and implementing Decision Support Systems, *Executive Information System and* Executive Support System are complex and challenging tasks. The presented SITIRATING solutions ensure the availability of business-critical information in real time.

**5. APPENDIX**

**Appendix No.1 : LIQUIDITY**



## Appendix No. 2: PROFIT & FINNACIAL EFICIENCY



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