

## Chapter 18 Executive Information Systems

### 1. Describe what executive information systems are

Type of DSS that aims to meet ad hoc information needs of top executives

-DSS that assists top executives in ad hoc analyses of current performance and projected operations

-computerized system that gives executives easy access to internal and external information relevant to their critical success factors

-system that helps executives request and monitor key information from both internal and external sources via customized presentations

Common Traits

-used directly by top-level executives

-designed to require little or no training of users

-designed to be "easy" to operate, often being customized to the needs of an individual executive user

-able to present information in textual, tabular, and/or graphical ways

-able to access and combine information from a broad range of sources both within and outside of the organization

-able to select, filter, compress, and track critical success factor or key indicator information, and

-able to do status reporting, exception reporting, trend analysis, and drill-down investigation

### 2. Explain how and why executive information systems are developed

HOW AN EIS FITS IN AN ORGANIZATION

-EIS draws on MISs and commercial databanks and information services

-executive has other information sources (non-computer and computer-based)

EVOLUTION OF EISs

- early EISs: narrow capabilities, very top executive

-took data from MISs (mainly operational, accounting)

-organized it into visual tables and graphs

-presented it directly to executives, allowing drill down

-called electronic "briefing books"

TRENDS

-Lower level managers should get information consistent in form and content with top executives

-analyses should be possible in addition to retrieval (more dynamic, flexible than briefing book)

-achieve competitive advantage by making information directly available to executives in related organizations (external EIS users)

-new EIS features: analyses, multimedia communication, artificial intelligence

-Five approaches to determining and satisfying these needs

1. By-product method

- little effort spent trying to determine needs
- top executive gets collection of reports that are by-products of ongoing operations

2. null method

- no formal, systematic effort to supply info
- they informally collect information from trusted sources

3. Key indicator method

- health of organization gauged in terms of a set of key financial indicators
- information about each collected on a continuing basis
- executive is made aware of only those indicators where performance is off target as basis for corrective discussions
- key indicator information made available via flexible visual displays (e.g., electronic boardroom)
- in full
- by exception
- graphically

4. Total Study method

- executives sampled about their total information needs
- results compared to what existing computer systems produce
- where gaps exist, subsystems are developed to fill them

5. Critical success factor method

- CSF: area of activity in which satisfactory results will ensure organizational competitiveness
- identified through formal executive interview process
- first, uncover executive goals
- then, CSFs that underlie them
- then, agree on how to measure/report progress on goals and CSFs
- EXAMPLE: return on investment as chief goal, with several CSFs
- strengthening customer relations
- supporting the sales force in the field
- improving productivity
- securing R&D support from the government
- developing new products
- acquiring new technological capabilities
- improving production facilities

kinds of information needed

- cost accounting information
- information from external sources (e.g., customers)
- coordinated information from diverse internal sources
- objective measures and subjective assessments for CSFs

-information about current results (short-run performance), as well as building for the future

3. Identify factors that should be considered when development of an executive information system is proposed.

Usually done by a professional developer

Factors for successful development

- an executive sponsor who is informed and committed
- an operating sponsor
- appropriate EIS development personnel
- appropriate EIS development tools
- effective data management
- clear linkage of EIS to organization's objectives
- management of organizational resistance
- management of EIS evolution and spread

TOOLS AND METHODS

- intrinsic and extrinsic tools
- prototyping
- evolutionary development
  - feature expansion
  - more users
  - importance of rapid deployment of a working EIS

EIS Limitations

- Economic (average development cost \$365,000 [1991])
- TECHNICAL
  - information transferal from many sources
  - currency of information
  - quality of information
- ORGANIZATIONAL
  - biased agenda and/or time horizons
  - loss of managerial synchronization
  - organizational destabilization
- EIS FAILURES

CONDITIONS LEADING TO EISs

- pulled by executive needs
- pushed by technical advances