Chapter 7
Determining Information Need
CSF Methods
Determining Information Need

CSF Methods

CSF analysis is:

- A method developed at MIT’s Sloan school by John Rockart to guide businesses in creating and measuring success
- Widely used for technology and architectural planning in enterprise I/T
- A top-down methodology that is especially suitable for designing systems as opposed to applications
- A reductionist method for going from an abstract vision to concrete requirements.
Determining Information Need
CSF Methods

What are Critical Success factors
• CSF’s are those factors which the management of the organization must focus & manage effectively.
  ✮ A key area where satisfactory performance is required for the organization to achieve its goals
  ✮ A means of identifying the tasks and requirements needed for success
  ✮ At the lowest level, CSFs become concrete requirements
  ✮ A means to prioritize requirements
Determining Information Need

CSF Methods

Why CSF?
An identification of the CSF's for an organization helps the information analyst to focus the information systems to critical issues of business. In a sense CSF's are those factors which the management of the organization must focus on & manage effectively.

To control these factors effectively a manager must be able to make these factors measurable & define performance standards for each measure, known as Key Performance Indicators (KPIs).
Determining Information Need
CSF Methods

What are different applications of CSF methodology

- Start with a vision: mission statement
- Develop 5-6 high level goals
- Develop hierarchy of goals and their success factors
  - Leads to concrete requirements at the lowest level of decomposition (a single, implementable idea)
  - Along the way, identify the problems being solved and the assumptions being made
- Cross-reference usage scenarios and problems with requirements
Determining Information Need
CSF Methods

How does CSF method works
The steps to take in applying CSF method is as follows:
• Understand the business and business process
• Identify What is critical for business
• Identify appropriate measures of CSF (called KPI)
• Define standard performance for each KPI
• Identify which Information system should provide information on actual performance against each CSF/KPI
• Check system can provide this information
Determining Information Need

CSF Methods

Using CSF method for evaluating Effectiveness of information systems:
The CSF method can be used for conducting an management Audit of information systems by exactly same steps outlined in pervious slide. The IS auditor may then recommend enhancement, fresh development or migration to new technology.

MIS reports & CSF/KPI's

Finally at a micro level the CSF/KPI concept can be used to assess the quality of a MIS report format.
Determining Information Need
CSF Methods

Types of CSFs:
Broadly there are four types
1. CSFs which are basic to business such as sales, Account receivables
2. CSFs which are specific to the industry such as average occupancy may be critical to hotel
3. CSFs which are specific to company strategy such as during a price war certain CSFs gain more prominence over others
4. CSFs which are dependent on external environment such as with new laws of anti pollution act company needs to monitor that there systems are working properly
Determining Information Need
CSF Methods

How good an information Analyst are you?
• As an information analyst it is quite possible to identify CSFs of the first category.
• With some knowledge of a specific industry such as shipping or retail you could be identified the CSFs which are peculiar to that industry or critical constraint in that industry
• With access to top management of the company, you would be aware of strategy which company is perusing different times. This would help you to build in correct CSF
Determining Information Need

**CSF Methods**

- Environmental CSFs are required for a broader understanding about the business & socio-economic–political environment.
- Anticipating these will help build in additional CSF/KPI in the reporting system.
- The CSF method is a versatile tool in the hands of information analysts but requires certain maturity and experience to use all above types of CSFs & build a comprehensive MIS.
Critical Success Factor - Executive Engagement

- Visible, consistent support and an active role in communication and reward.
- Assuring linkage of Six Sigma to corporate strategies.
- Clear prioritization (relative to other initiatives, programs and priorities).
- Requiring the use of facts and data to support actions at all levels of decision-making.
- Creating accountabilities, expectations, roles and responsibilities for the organization.
- Conducting and attending regular reviews to assure and verify progress.
Determining Information Need
CSF Methods

Critical Success Factor - Communications
  • Creation and communication of a Human Resources plan to support Six Sigma roles.
  • Regular written communications on Six Sigma news and successes.
  • Development and dissemination of communication aids to management.
  • Advocating and creating a "common language" based on Six Sigma.
Determining Information Need
CSF Methods

Critical Success Factor - Projects
• Establish a documented 1-year Six Sigma project inventory (and refresh regularly).
• Assure linkage of Six Sigma projects to critical business and customer needs.
• Establish projects of appropriate scope and size (significant savings & achievable).
• Assign a Champion and Black Belt to each project (and hold them accountable).
• Implement a project tracking system to facilitate replication and reuse.
Determining Information Need

CSF Methods

Critical Success Factor

- Customer Service
  • Speed of response of enquires
  • Flexibility in changing delivery schedule
  • Availability of control orders status
  • Customer complaints as % of total deliveries
  • Customer loyalty as % of retention
  • Growth as % of new customer

- Order processing
  • % of on time deliveries
  • Average order time for a order & correct status
**Determining Information Need**

**CSF Methods**

**Critical Success Factor**
– Collections and receivables
  • Outstanding amount as % sales
  • Outstanding expressed in no of days
  • Age wise break up

-- Quality
  • Complaints with respect to quality as % of total defects
  • Category wise complaints

-- Profit & loss
  • Usual financial accounting method
Determining Information Need
CSF Methods

End of Chapter 7