

# ارزیابی و شناخت وضعیت جاری



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## IS/IT Strategic Analysis: Assessing and Understanding the Current Situation

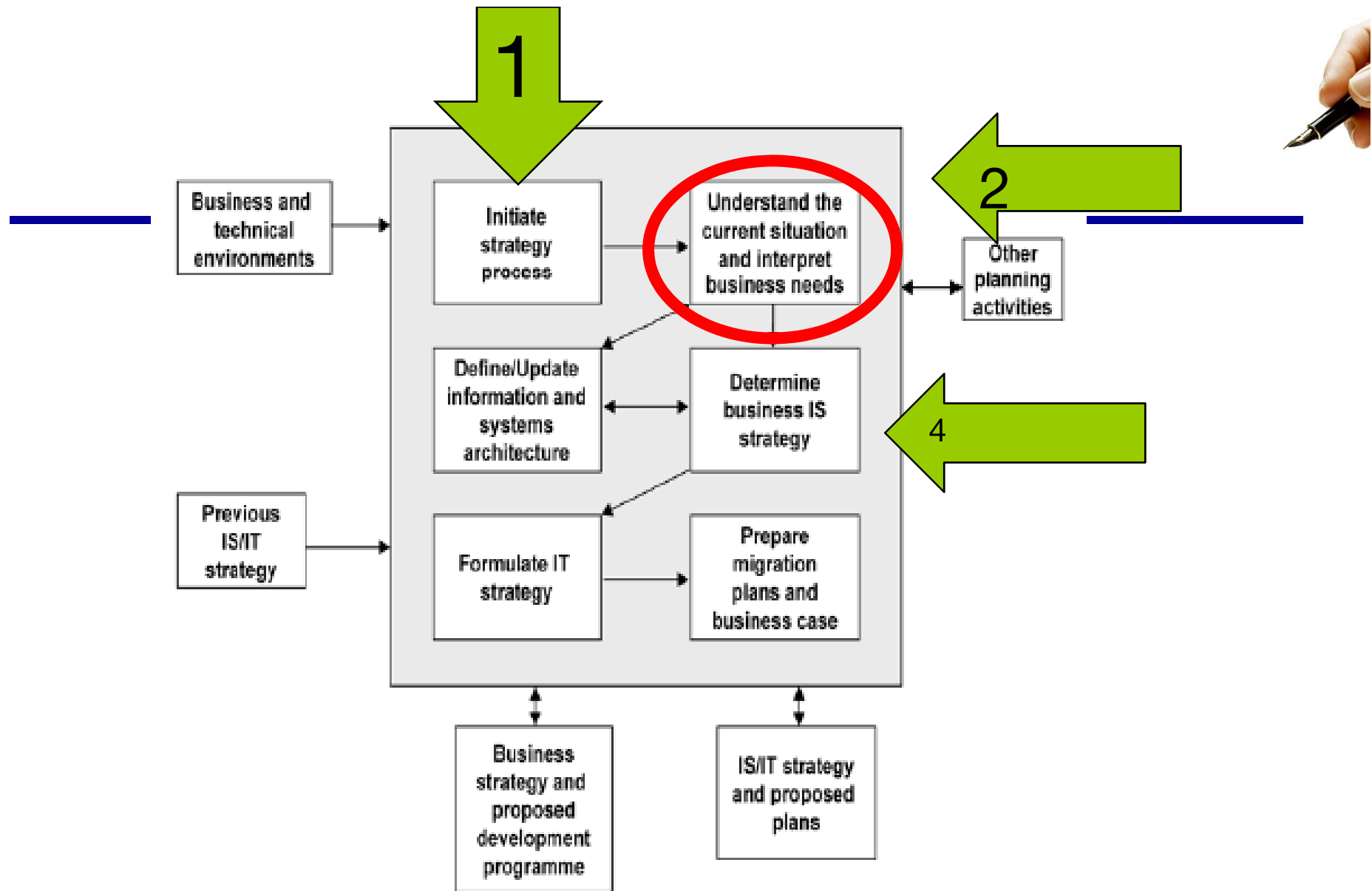


Figure 3.9 Framework for IS/IT strategy formulation and planning process



# شناخت وضعیت جاری و نیاز آینده

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- analysis of the existing and expected future business and IS/IT environments and strategies;
- the organization's IS requirements arising out of the current business strategy, by aligning these requirements with stated business needs and initiatives;
- the future potential from IS/IT through identifying opportunities to impact the business strategy and significantly raise its competitive performance.

- In developing the IS strategy, a thorough understanding of the business strategy is essential. Most re-engineering initiatives will spring from, and be part of, the business strategy.
- In many instances, the early work in developing an IS strategy is first to flesh out the details behind the headlines in the business strategy, and this means working with the business areas to help determine what those business initiatives will be and their expected contribution to business objectives. These could include re-engineering initiatives.
- Most, if not all, re-engineering initiatives have a significant IS/IT element, which will be accommodated in the IS strategy, and need to be allocated the same priority that the business places on the change program.
- There is a common need in both IS strategy development and business re-engineering to build up a model of the business as it currently exists and other potential models of how it will look following transformation or evolutionary change.
- Success in re-engineering, as with the development and implementation of an IS/IT strategy, demands a strong business–IS function partnership.<sup>6</sup>
- Designing or redesigning business processes to take advantage of IS/IT capabilities is essential if the traditional problems of automating poorly-designed processes or inefficient work practices through IT are to be avoided.

مهندسی مجدد  
و  
اصلاح فرآیندها  
و  
پیاده سازی استراتژیها  
نوین  
و  
بکارگیری قابلیت IS/IT  
معمولا با هم  
صورت می گیرد

# نقش در مهندسی مجدد

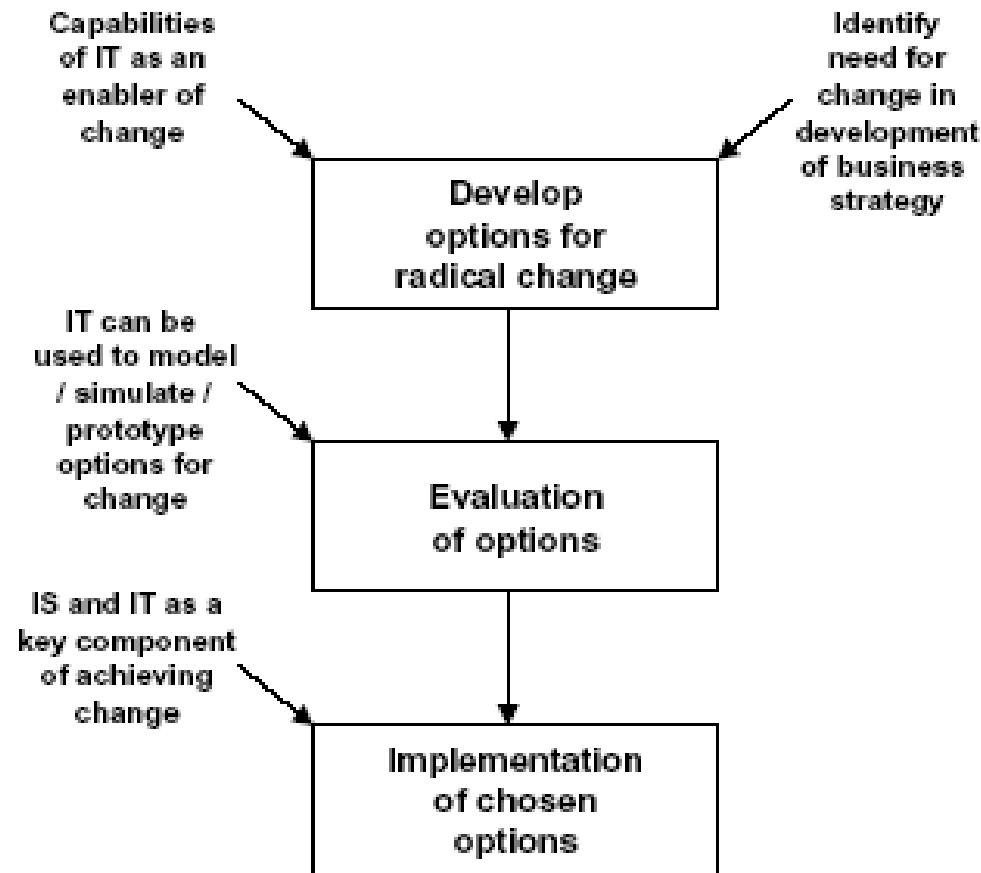


Figure 4.1 The role of IS/IT in business process re-engineering



**Table 4.1** *Reconciling IS/IT and BPR*

<i>Questions</i>	<i>Business process re-engineering</i>	<i>IS/IT strategy formulation and planning</i>
<i>Formulation</i>	1. How can we re-engineer our business to provide advantage?	1. How can IS/IT be exploited to provide business advantage? (impact)
<i>Implementation</i>	2. How can we improve our processes to ensure success of the strategy?	2. How can IS/IT ensure the success of the business strategy? (alignment)

# تعیین نیاز

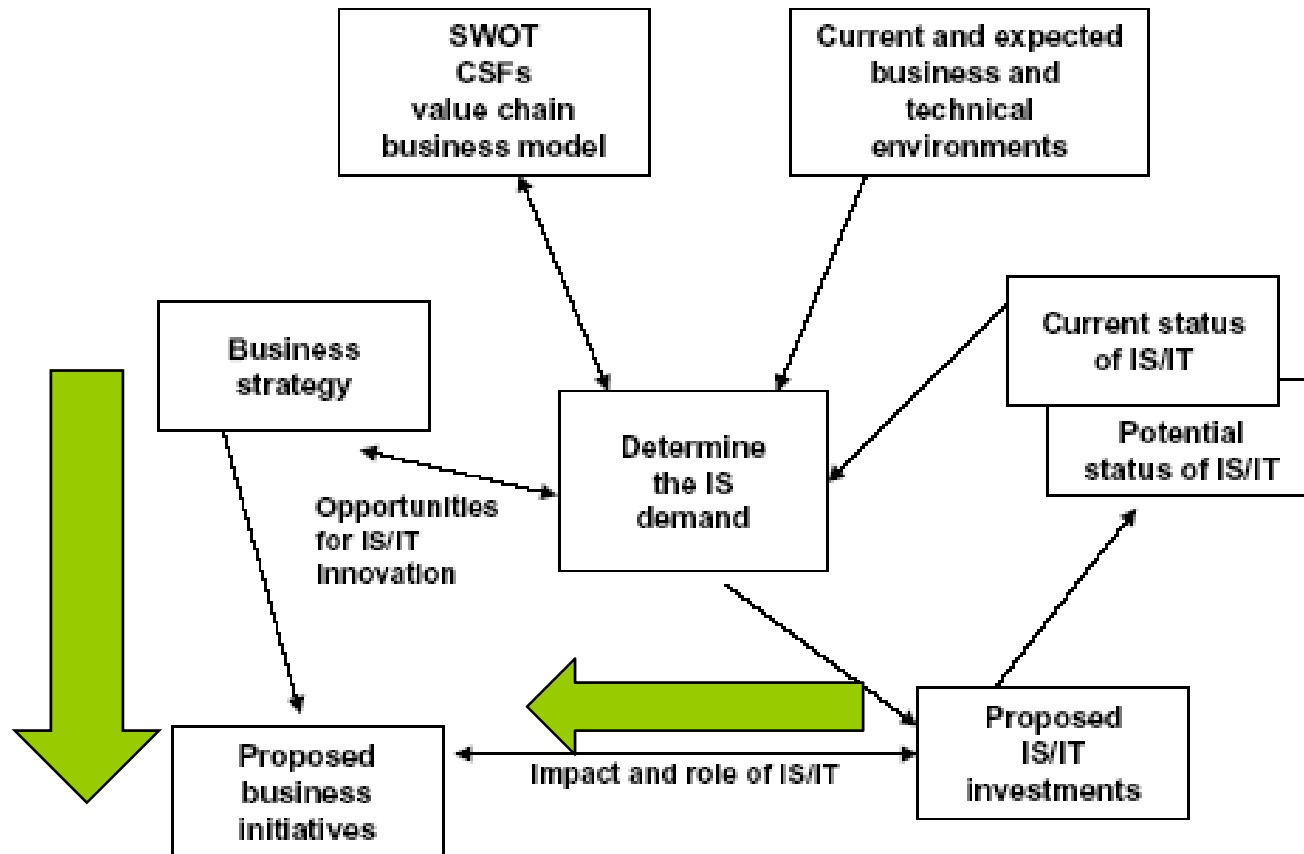
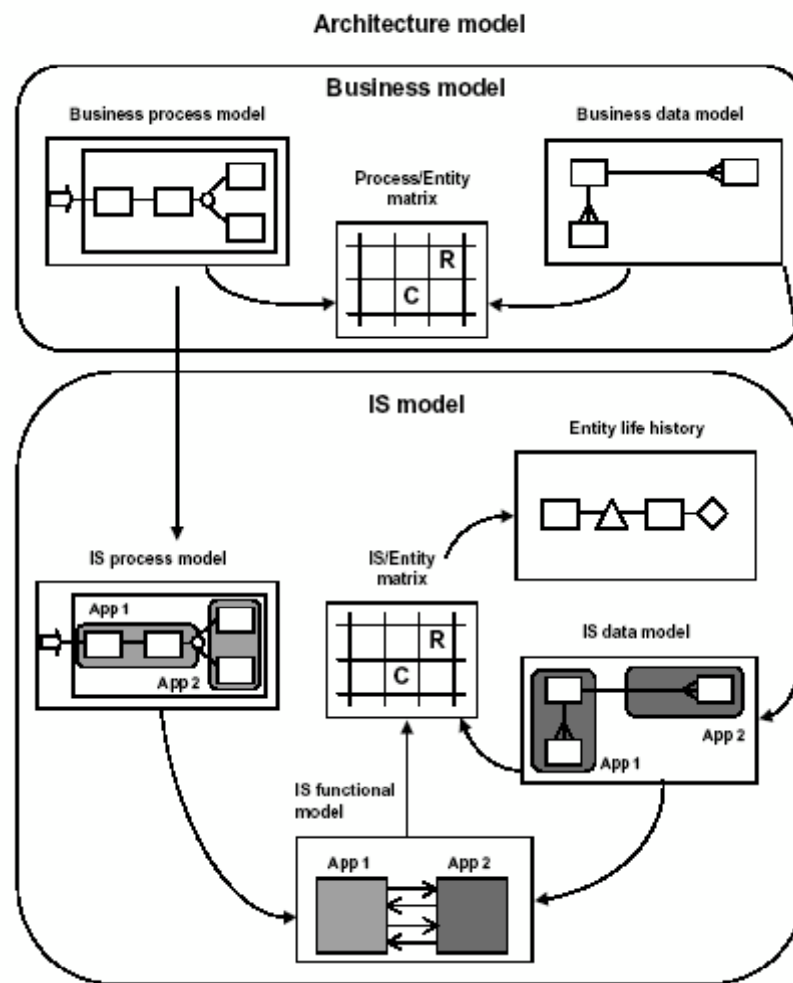


Figure 4.2 Determine the IS demand

# مدل معماری (ارتباط کسب و کار و سیستم اطلاعاتی)







## اجزامل سیستم اطلاعاتی

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- *Process flow models* or *process dependency charts*, which show the end-to-end series of information dependencies and actions that deliver satisfactory business outcomes to external or internal customers. An example might be 'develop a new product'.
- *Hierarchical activity models* or *functional decomposition diagrams*, describing the business units' activities. They are produced by activity analysis and show how the high-level functions of the business are broken down into broad activity categories defining what it does or wants to do (sell and produce products, etc.) and then into more detailed subordinate activities.
- *Entity relationship models*, showing the relationships of the key entities or entity groups relevant to the organization. Their main purpose is to define the underlying information architecture, independent of any functional considerations. They also provide a means of clarifying company-wide business language and are the source of the initial entries into the business unit's data dictionary.
- *Data flow diagrams* (DFDs), indicating the movement of information around, into and out of the business. A DFD is a network representation of business information systems and shows the logical dependency of one activity upon another for its data. The most significant characteristics of DFDs are that the situation is represented from the viewpoint of data, not a person or organization. The diagrams are graphic and can be partitioned and layered so that rather complex flows can be easily shown. They can be structured so that functions can be decomposed into more detailed self-contained models.
- *Activity/Entity matrices*, providing a tabular representation of the business and illustrating the relationship between information entities, conceptual business activities and conceptual application areas. They plot the usage of information entities against the business activities and also record whether the particular activities create, use or modify the entities. This enables a first-pass attempt at matching application areas to important business needs and showing how information will be shared across applications.

# نتایج تحلیل سبد برنامه های کاربردی



**Table 4.3** *Deliverables from a current portfolio assessment*

- Categorization in terms of application portfolio segments—strategic, high potential, key operational and support
- Assessment of coverage and contribution of systems to business needs, and any major opportunities to increase business value
- The extent to which the systems integrate or interoperate
- Assessment of the effectiveness and robustness, and the unrealized potential in current systems, and of the enhancement required to increase contribution
- Common elements and differences between current portfolio and required information and systems architecture
- Supporting information to enable estimates of potential improvement projects
- Supporting information to allow prioritization of enhancement and support work on current systems
- Opportunities that exist to improve quality of information
- Strengths and weaknesses assessed against the business CSFs
- Assessment of the risks of failure from the current portfolio

# نمونه سئوالات



**Table 4.4** Sample questions for evaluating the current portfolio (source: adapted from a questionnaire developed by T. Osborne, 'Current portfolio questionnaire', working papers, Glaxo Wellcome Operations, 1994)

1. What business activities are 'contained' within the system?
2. What information (automated and manual) flows through the system and how is the information accessed and transferred?
3. Does the system support a critical business process, with reference to objectives, critical success factors, drivers, value chain? Does the system inhibit the effectiveness of the core process?
4. How does the system map on to process maps, entity charts and the conceptual architecture? How does it map on to the future applications architecture, if one has been developed?
5. What problems—gaps, poor links, duplications, etc.—are revealed?
6. How does the system contribute to meeting the IS demand determined in business strategy analysis?
7. How effective is user support in terms of responding to and clearing up problems, and how effective is training, documentation and usability?
8. How useful, accurate and timely is the information put into and taken out of the system?
9. Are there any better ways of using the system?
10. How flexible is the system for making changes?

# روشهای تعیین نیاز



**Table 4.5** Techniques used in creating the IS demand statement

<i>Technique</i>	<i>Deliverables</i>
Business strategy analysis	Business strategy—mission, objectives, etc. Global business initiatives Business area initiatives Business priorities IS requirements leading to IS demand
Critical Success Factor (CSF) analysis*	Areas of business activity 'where things must go right' Potential IS/IT thrusts Performance measures
SWOT analysis	Analysis of Strengths, Weaknesses, Opportunities and Threats of internal and external business and IS/IT environments
Balanced Scorecard analysis*	Business objectives and key information requirements Performance measures



# روشهای تعیین نیاز

Business portfolio and competitive strategy analysis**	Options for long term IS investment to strengthen competitive position
Value chain analysis (internal and external)**	Internal information flows High-level 'industry' information flow model Potential impact of IS/IT
Process analysis*/Business process re-engineering*	Identification of core business processes Effectiveness of processes in meeting drivers Process improvement options Process redesign blueprints (that deliver significant performance improvement regarding drivers) Resultant IS/IT options
Organizational modelling*	Comprehensive assessment of the business and IS/IT environments Filtering mechanism in assessing options for change
Business modelling—information analysis techniques*	Enterprise model: —entity models —object models —process dependency charts —data flow diagrams —functional decomposition diagrams —conceptual architecture



# روشهای تعیین نیاز

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## *Technique*

## *Deliverables*

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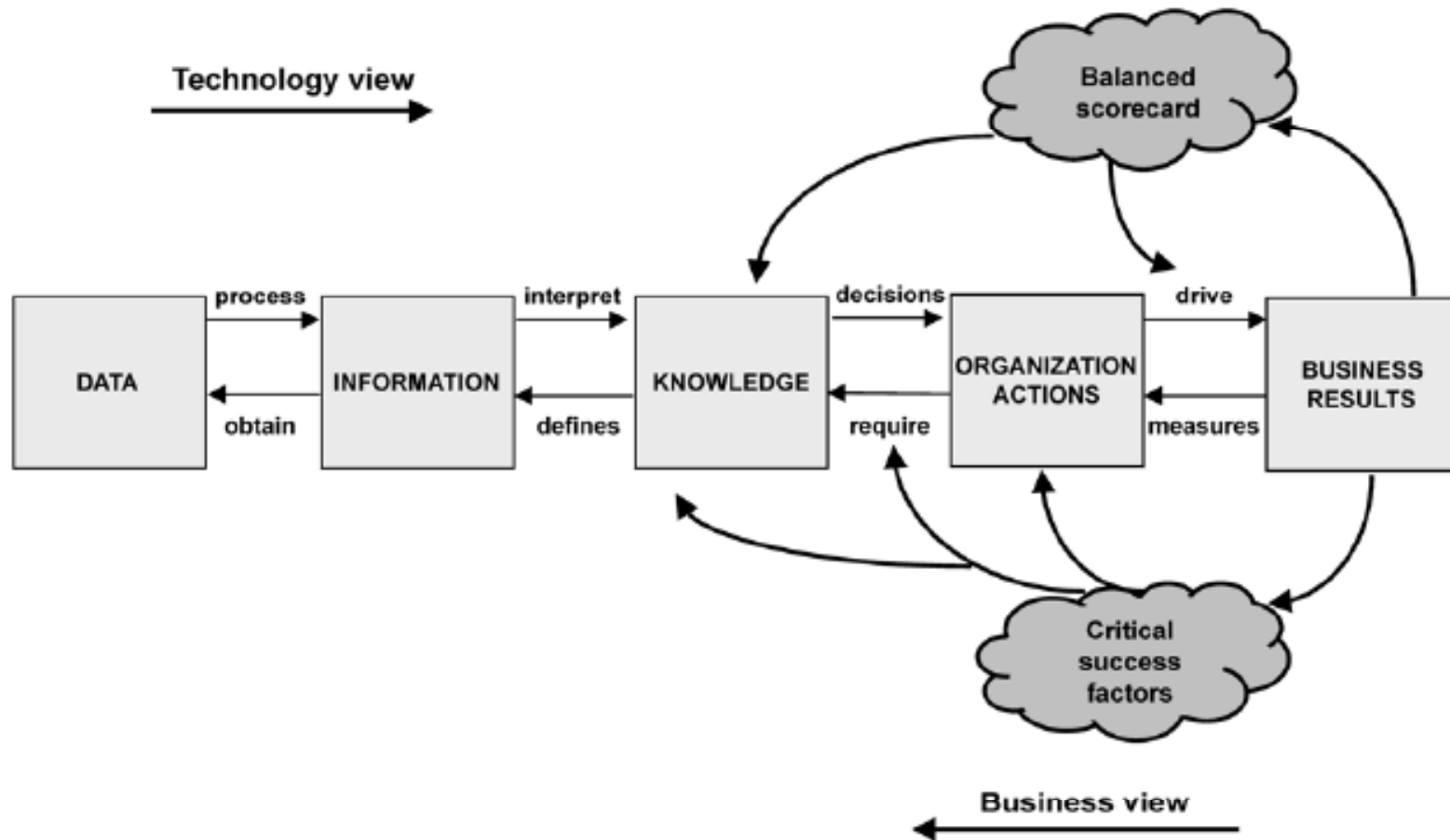
Current portfolio evaluation\*

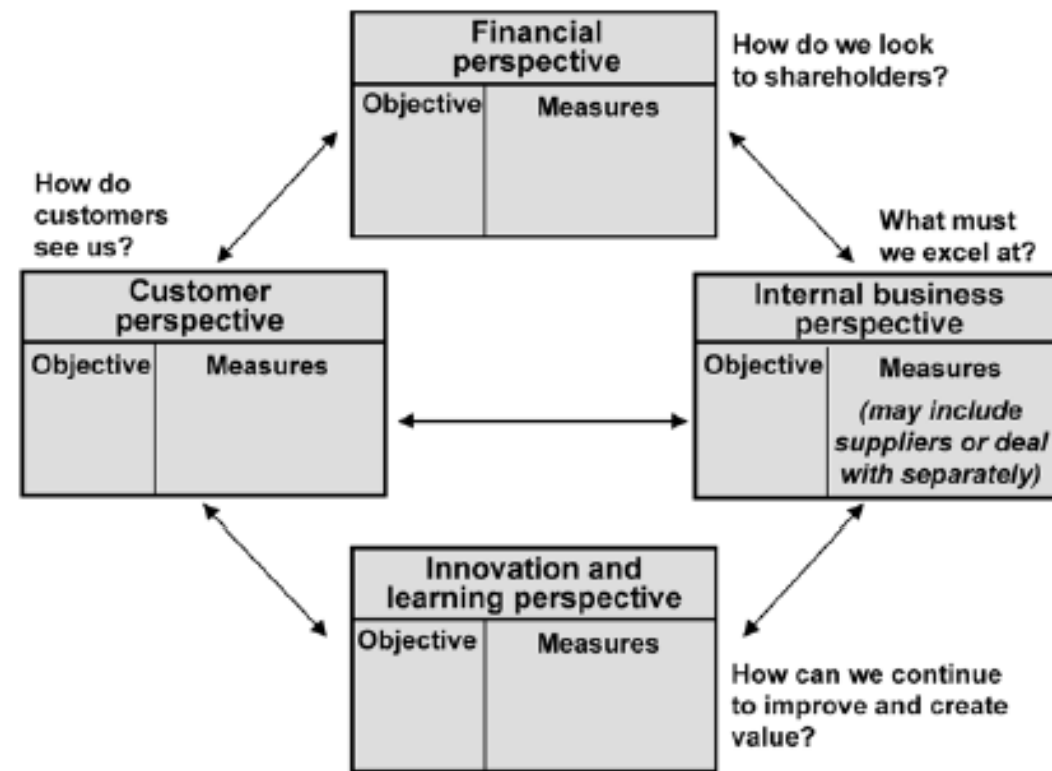
Profile of current applications  
Coverage and contribution to business user and technical satisfaction  
Contribution of applications to business strategy

Technology assessment and IS/IT infrastructure review

Inventory of current hardware and software  
Assessment of IS organization, procedures, skills and methods

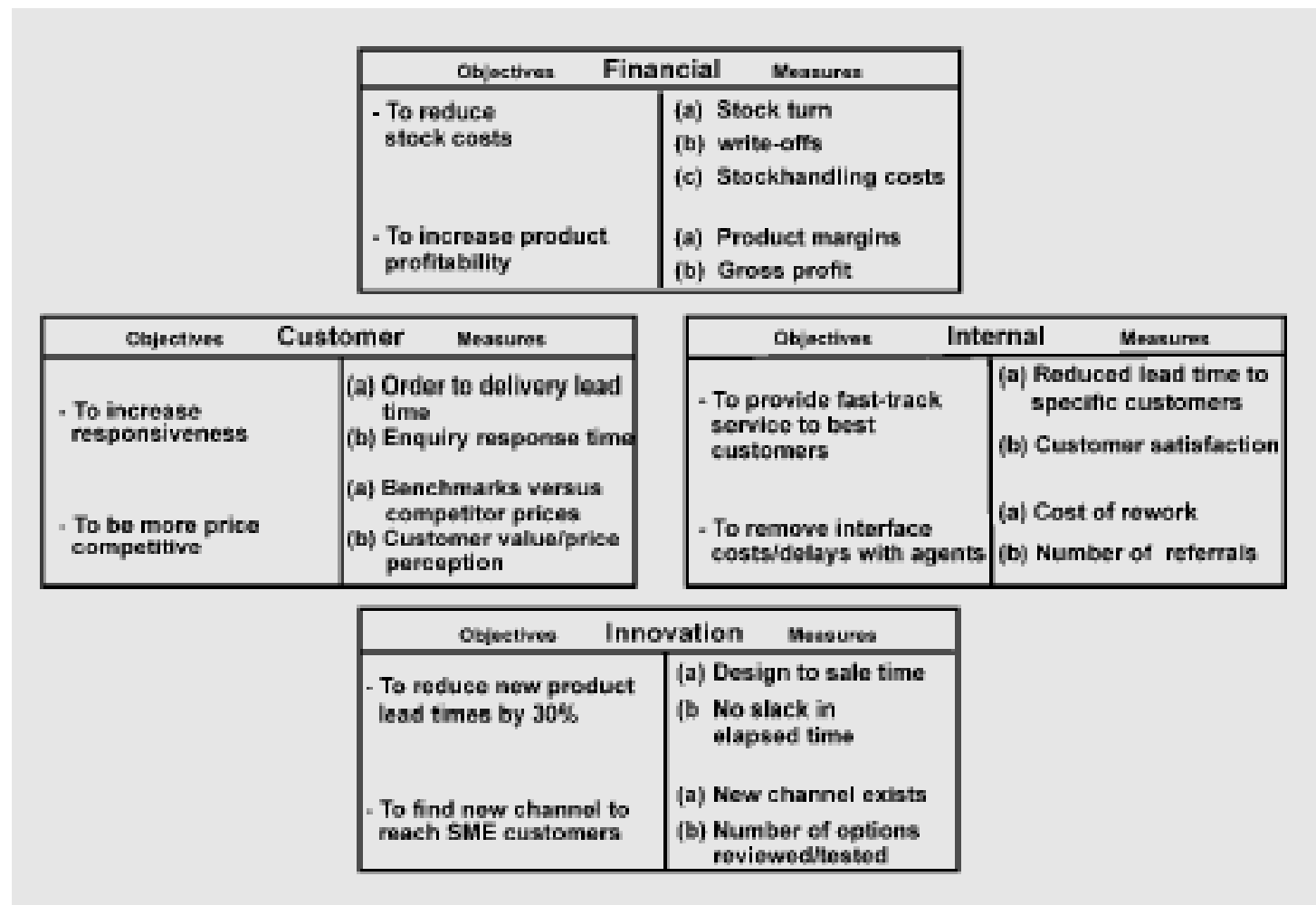
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**Figure 4.5** Information and the Balanced Scorecard (source: R.S. Kaplan and D.P. Norton, 'Using the Balanced Scorecard as a strategic management system', Harvard Business Review, January-February 1996, 76. Used with permission)





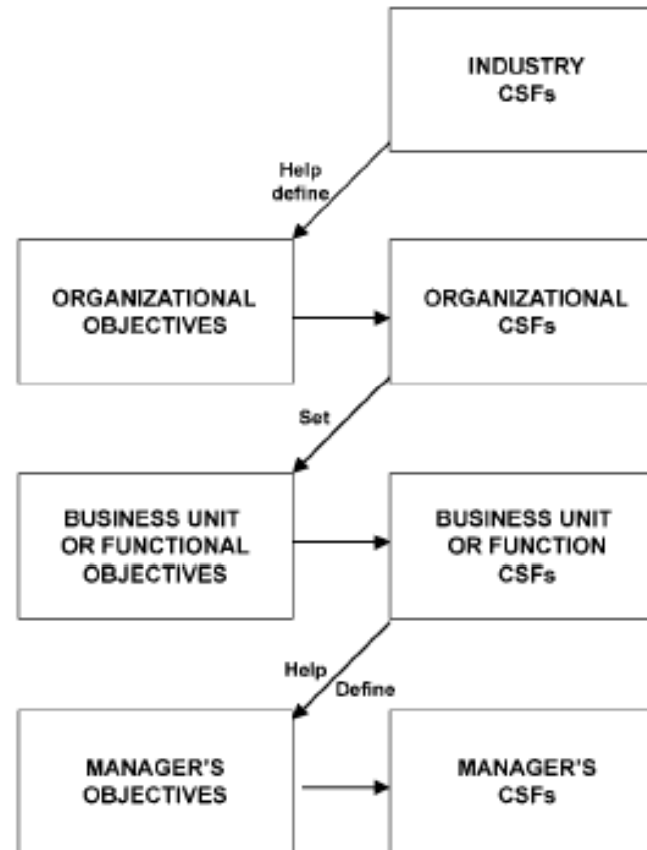


Figure 4.6 Objectives and CSFs

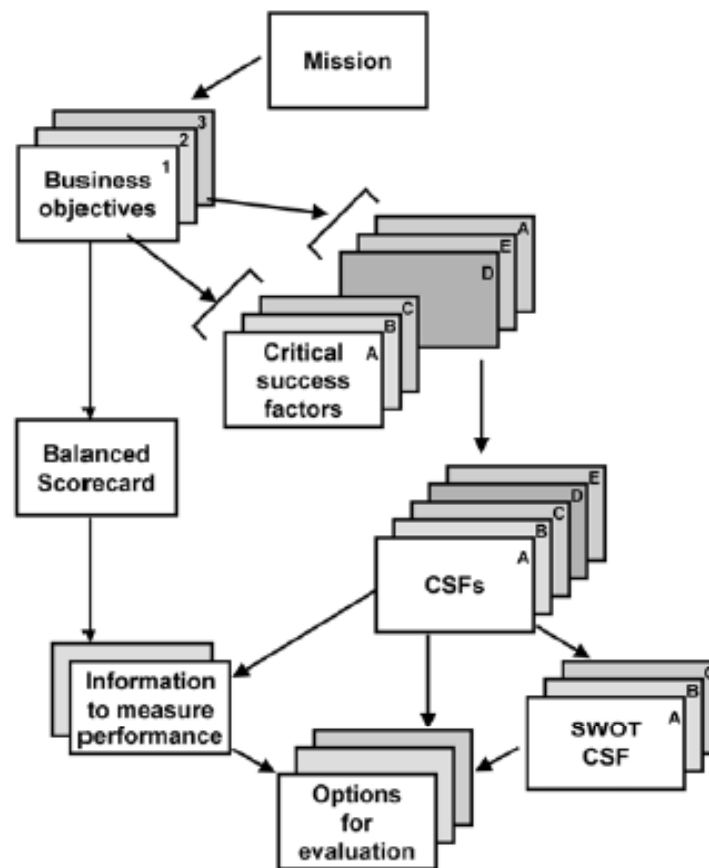
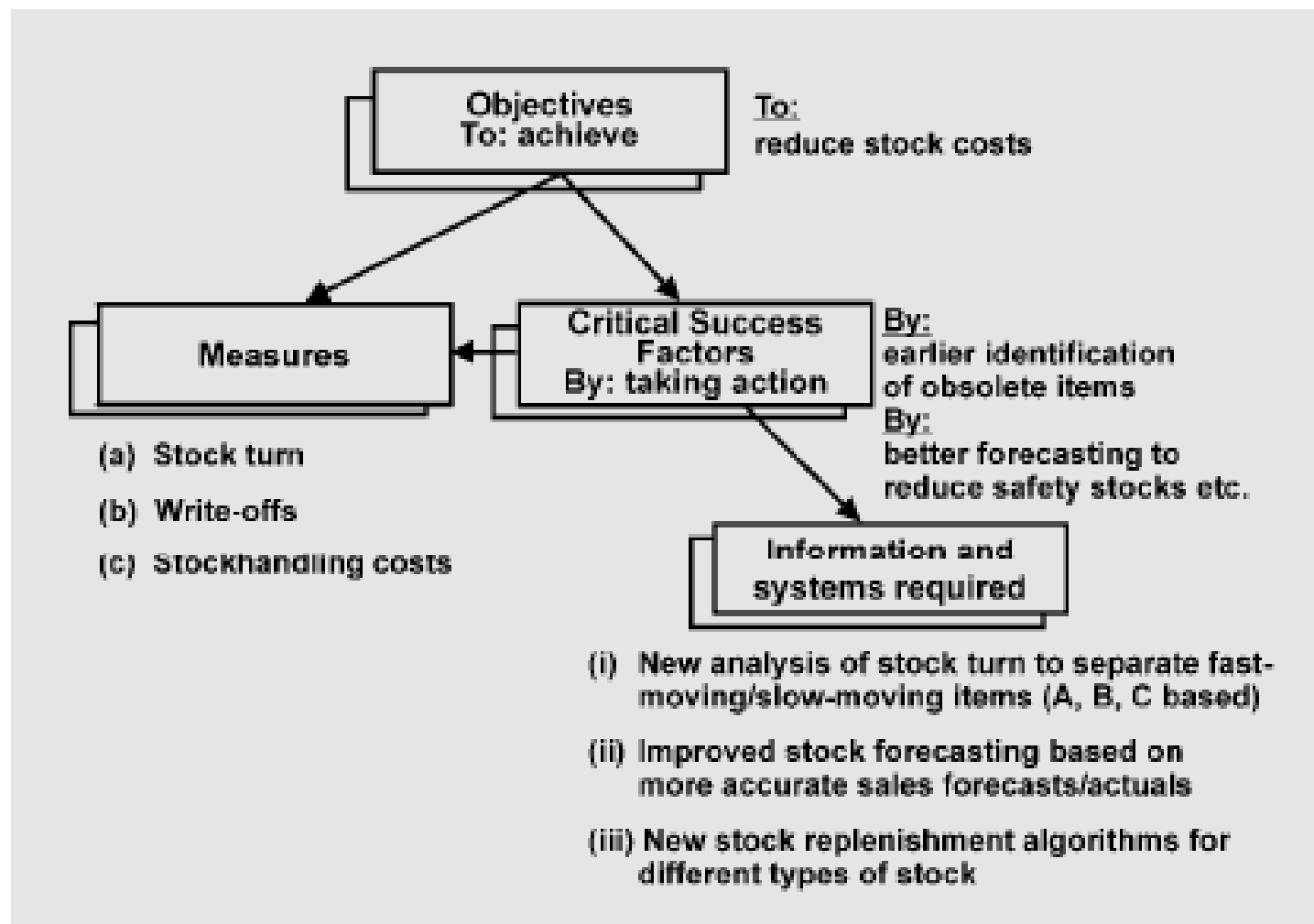
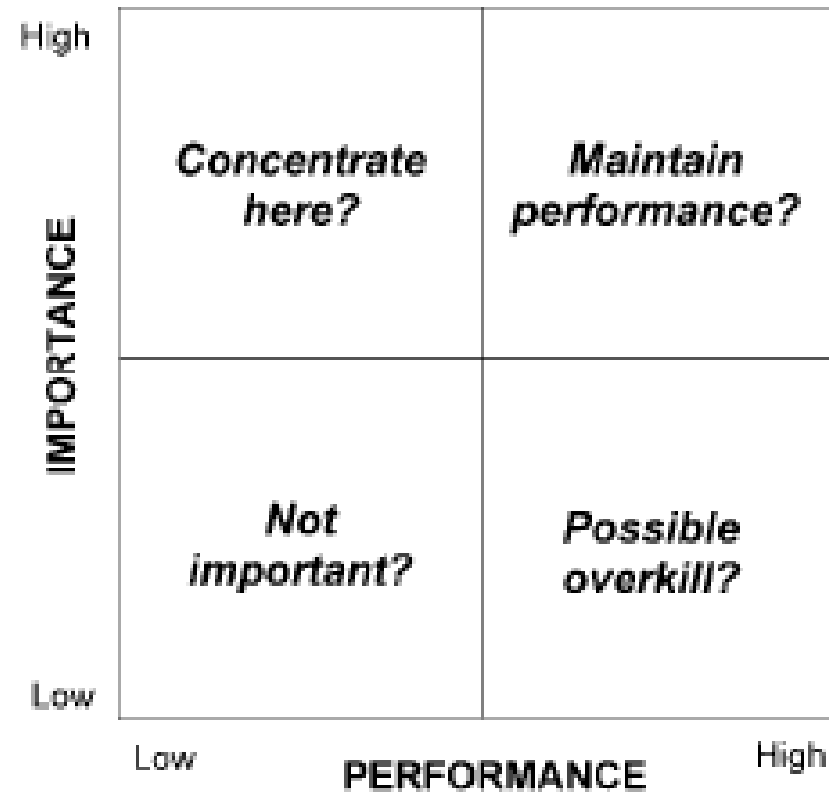


Figure 4.7 Critical success factors basic processes





*Figure 4.9 The importance–performance matrix*