

J. Ward and J. Peppard, Strategic Planning for Information Systems, Third Edition, John Willey, 2002.

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IS/IT Strategy Analysis: Assessing and Understanding the Current Situation

Business Process Reengineering and IS Strategy

Business Process Reengineering

- ◆ Popular in businesses recently
- ◆ Move from traditional organizational model to process-oriented model
- ◆ Two key IT questions:
 - How can business processes be transformed using IT?
 - How can IT best support business processes?

Understanding Current Situation

Understanding Current Situation

- ◆ Build in-depth understanding of
 - Business strategy
 - Business & technology environment
 - Current status of IT in the business

Determining IT Requirements: The IS Demand

◆ Determining the IS strategy:

- One way is to ask each area of the business what are their requirements? This is to deliver a ‘wish list’
- Another way is to read every written strategy statement and interpret them into relevant IS/IT principles and critical success factors (CSFs), application requirements

Determining IT Requirements

- ◆ To achieve the desired results, it is necessary to obtain complete understanding of:
 - The current situation (Where we are)
 - The situation being sought (Where we want to be)
 - How the gap might be closed (How to get there)
- ◆ This will include both business and IS/IT
- ◆ The best course is for IS strategy to be developed in parallel with business strategy

Fact Finding and Analysis Tasks

Task	Purpose
Analysis of business strategy	Identify associated information needs
Analysis of the current and expected future external business environment and future portfolio of business	Determine how IS/IT can contribute to strengthening the business's competitive positioning
Analysis of internal business environment	Understand the SWOT
Identify critical success factors	Identify characteristics of success in meeting objectives
Information analysis	Model the activities and information elements of the business
Evaluate effectiveness of current processes	How IS/IT can improve the performance of the process

Fact Finding and Analysis Tasks (Cont.)

Task	Purpose
Analyze internal and external value chains	Identify important information flows through business and across its partners
Create conceptual architecture of how information use and processes might be restructured	Modeling future processes if business process redesign is being undertaken
Compile catalog of hardware and software in use & principal functions	An input into migration planning
Evaluate current application portfolio	Assess the information systems in use and in development
Evaluate current IS/IT policies, organization, processes, services & capabilities	Assess their applicability to meet current and future business needs

Gathering the Relevant Data

- ◆ It is required the sufficient understanding of the business and information environment to be able to develop sensible and realistic strategies
- ◆ But not the type of exhaustive analysis associated with detailed design and development of systems
- ◆ Useful documents:
 - Business strategy
 - Statements of objectives
 - Key performance indicators
 - Annual plans
 - Budgets
 - Forecasts

Interpreting The Business Strategy

Internal Business Environment

- ◆ The elements are:
 - The business strategy include objectives and intended means to achieve them
 - The current business processes, activities, and the main information entities
 - The organizational environment, covering its structure, assets, and skills, knowledge, culture and relationship

Business Strategy Components

- ◆ **Mission:** an unambiguous statement of what the business does and its long-term purpose
- ◆ **Vision:** an easy identify picture of what the business will be in the future, and how it will operate
- ◆ **Goals:** the set of major achievements that will accomplish the vision
- ◆ **Objectives:** the targets (unambiguous and measurable) for accomplish the business vision
- ◆ **Strategies:** the methods to meet the business objectives
- ◆ **Critical success factors (CSFs):** a few areas have to be right in order for the business to flourish
- ◆ **Business area plans:** document the response or information needs to the business strategy

Identifying Strategy

- ◆ Often, business strategies are not:
 - Recorded formally
 - Well constructed
- ◆ Identify through questioning and analysis
- ◆ May be no strategy at all and only bottom-line objectives

Business Processes, Activities and Key Entities

- ◆ **Business Models** depict the processes, activities, and information entities and how they relate to one another.
- ◆ Business models provide:
 - A clearly visualizing the business process and information flows, independent of organizational flows
 - A basis for conceptually defining activities and for designing and illustrating improvement opportunities
 - A basis for indicating the scope of application areas and for defining the future systems architecture

Business Processes, Activities and Key Entities

- ◆ **The processes** – the sets of interlinked activities that deliver specific outputs to customers inside or outside the organization.
- ◆ **Activities** – elements of business processes that the organization undertakes to produce, promote, and distribute its products or services
- ◆ **Models:**
 - DFDs
 - Use Cases
 - Activity Matrices
 - Functional decomposition diagrams

Business Processes, Activities and Key Entities

- ◆ **Key entities** – within an activity, those ‘things’ that are of fundamental importance to the business processes, and for which there will be associated information

- ◆ **Models:**
 - Entity relationship models
 - Entity matrices
 - Class diagrams

Examining the Current IS/IT Environment

Internal IS/IT Environment

◆ Evaluate:

- Current Application Portfolio (& the applications under development)
- Current/Past strategy and Policies
- IS Organization and Processes
- Current Assets, Resources, and Skills
- Methods and Training Provisions
- What Does the Business Think of IS?
infrastructure and IT supply provisions

Deliverables From a Current Portfolio Assessment

- ◆ Categorization of strategic, high potential, key operational and support systems
- ◆ Assessment of coverage and contribution to business needs
- ◆ Extent of system integration
- ◆ Assessment of effectiveness, robustness and unrealized potential of current systems
- ◆ Common elements and differences between portfolio & required system and information architecture

Deliverables From a Current Portfolio Assessment (Cont.)

- ◆ Supporting information to enable estimates of potential improvement projects
- ◆ Supporting information for enhancement & support of existing systems
- ◆ Opportunities to improve quality of information
- ◆ Strengths & weaknesses assessed against CSFs
- ◆ Assessment of failure risks of current portfolio

Current Portfolio Evaluation

- ◆ The analysis involves gathering information from two main sources:
 - The users of the information systems and databases – to gain information about:
 - System support business objectives and processes,
 - System's scope,
 - System quality, training, dependence on the application,
 - Its future potential
 - The IT development and technical staff – to gain information about
 - The structure and interfaces of information systems and databases,
 - Quality, age and technical robustness and maintenance.

Current Portfolio Evaluation

- ◆ Sample questions for evaluating the current portfolio
 - What business activities and information entity are contained within the system?
 - What and how information enter into the system (automated and manual)?
 - Does the system support a critical business process?
 - What problems – poor links, duplications, etc – are revealed?
 - How useful, accurate and timely is information put into and taken out of the system?
 - Are there any better ways of using the system?

IS/IT Organization Assessment

- ◆ IS function, structure & relationship with the business at all levels
- ◆ Organization for provision of IT resources & services
- ◆ Sourcing strategy for IT resources & services
- ◆ How IS/IT function is managed & reporting level in the organization
- ◆ IS/IT governance structure
- ◆ How business cases & budgets for IT are prepared, who does it & who approves

External IS/IT Environment

- ◆ Final input into the planning process
- ◆ To gain a perspective on technical trends and opportunities for using IS/IT in fresh and innovative ways
- ◆ Part of this, looking at what competitors or other comparable organization are doing to pick ideas, obtain a measure of the relative maturity of the business's own IS/IT contribution

Business View of IT/IS

- ◆ Consideration of how many business processes & functions are under supported by systems
- ◆ Assessment of user satisfaction across entire range rang of IS/IT services
- ◆ Level of integration of systems & technologies
- ◆ Analysis of role and structure of IS/IT function in relation to organizational structure
- ◆ Level in management hierarchy of IS/IT responsibility

Technique for Interpretation and Analysis

Techniques Used in Creating IS Strategy

- ◆ Business strategic analysis
- ◆ Critical Success Factor (CSF) analysis
- ◆ SWOT analysis
- ◆ Business portfolio and competitive strategic analysis
- ◆ Value chain analysis (internal and external)
- ◆ Process analysis/ Business process re-engineering

Techniques Used in Creating IS Strategy (Cont.)

- ◆ Organizational modeling
- ◆ Business modeling-information analysis techniques
- ◆ Current portfolio evaluation
- ◆ Technology assessment and IS/IT infrastructure review

Evaluating Gap Between Current/Required IT Environment

Evaluating Gap Between Current/Required IT Environment

- ◆ Use modeling to determine:
 - Processes requiring recognition, simplification, streamlining or redesign
 - New or upgraded information resources
 - Changes in IT supply resources & competencies to support required IT role

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The End