

## INFORMATION TECHNOLOGY (IT) AND STRATEGY (134-1)

### EO 1. THE FIVE COMPONENTS OF A FIRM'S STRATEGIC AUDIT:

1. CUSTOMER ANALYSIS--involves a thorough understanding of the customer in order to best develop the goods and services that meet the customer's needs.  
**A product** is either a good or a service. [*"Products and services" is like "humans and men".*]
2. COMPETITOR ANALYSIS--involves examination of traditional rivals, potential new competitors, bargaining power, competitive intensity, **and** substitute products.
3. PRODUCT/MARKET POSITIONING ANALYSIS--involves defining the markets to serve, the products to offer, the channels to reach those markets, **and** the bases for differentiation.
4. VALUE CHAIN OR VALUE NETWORK ANALYSIS--involves
  - a. identifying the activities and resources needed to execute the product/market strategy **and**
  - b. determining which activities to perform and which to outsource.
5. BUSINESS CONTEXT ANALYSIS--involves analysis of the past, present, and future political, legal, regulatory, social, and economic factors that affect the firm.

**A business model** defines how a firm interacts with its environment to create a unique business strategy, attract resources, **and** create value for its customers, owners, and other stakeholders.

**A strategic position** is a unique marketing position that attracted existing customers from competitors and entices new customers to enter the market and do business with the firm.

**Strategic positions result from choices in four areas:**

1. Market/channel positioning determines the preferred customers, identifies their needs and expectations, **and** defines the channels to reach those customers.
2. Product positioning identifies the products to offer **and** determines their features and prices.
3. Value chain/value network positioning defines the firm's role within a network of suppliers, producers, distributors, **and** partners.
4. Boundary positioning defines the markets, products, and businesses that are **not** acceptable.

**Sustainable advantage** occurs when barriers make it hard for competitors to copy a strategic position **and/or** for customers to switch to competitors.

### EO 2. TRADITIONAL BUSINESS LOGIC HOLDS THAT AN ACTIVITY SHOULD BE PERFORMED WITHIN THE FIRM (RATHER THAN OUTSOURCED) IF

1. the activity is crucial to the firm's strategy and value proposition,
2. the firm can perform the activity at a lower cost and higher quality than if it were outsourced, **and**
3. the costs and risk of controlling the activity within the firm are less than if it were outsourced.

### EO 3. FOUR KEY APPROACHES THAT EVOLVE A FIRM'S STRATEGY [Four 'Es']:

1. Enhancements--involve incremental changes to existing
  - a. **products**--such as new functions or improved ease of use;
  - b. **markets**--such as advertising to attract new customers within an existing market;
  - c. **channels**--such as improving the quality, cost, or capacity of an existing channel;
  - d. **value chain or networks**--such as improving operations and/or existing relationships with current suppliers, distributors, or partners; **and/or**
  - e. **business models**--such as improving the economics of the current business model.
2. Expansions--involve
  - a. adding new products;
  - b. expanding into new markets, market segments, or geographic areas;
  - c. launching new channels;
  - d. adding new partners or suppliers or outsourcing activities; **and/or**
  - e. adding new revenue streams.

3. **Extensions**--involve launching new businesses *and/or* adopting new business models.
4. **Exits--involve**
  - a. dropping features, goods, or services;
  - b. exiting markets, market segments, or geographic areas;
  - c. exiting channels;
  - d. terminating business with suppliers or partners or insourcing activities; *and/or*
  - e. exiting businesses or business models.

EO 4. **SUCCESSFUL BUSINESS ALIGNMENT** requires integration and coordination of a firm's environment, strategy, and capabilities.

Information technology acts as a tool for defining new strategic opportunities and building the capabilities to execute those opportunities.

**MCFARLAN'S STRATEGIC GRID ANALYSIS** measures the impact of IT on business operations (on the vertical axis) and the impact of IT on strategy (on the horizontal axis). [See Figure 1.6.]

**The four quadrants of McFarlan's strategic grid:**

1. **Support quadrant**--contains IT projects and initiatives with low impact on the firm's core strategy and business operations.  
These projects typically address local improvements and incremental cost savings.  
These projects are designed and implemented by IT specialists in conjunction with end users.
2. **Factory quadrant**--contains IT projects and initiatives with low impact on strategy and high impact on operations.  
These projects focus on reducing costs and improving performances of the core operations.  
These projects are designed and implemented by business executives in conjunction with IT executives.
3. **Turnaround quadrant**--contains IT projects and initiatives with high impact on strategy and low impact on operations.  
These projects typically focus on taking advantage of emerging strategic opportunities.  
These projects are designed and implemented by partnerships between business executives, IT executives, and emerging technologies groups.
4. **Strategic quadrant**--contains IT projects and initiatives with high impact on both strategy and operations.  
These projects require a commitment to using IT to enable both core operations and core strategy.  
These projects are defined and implemented at the top levels of the firm.

**Executives use McFarlan's strategic grid to**

1. assess the alignment of individual IT projects with business operations and strategy,
2. benchmark the firm's IT project and investment portfolio with other firms to assess change over time, *and*
3. evaluate the portfolio of IT projects and the approach to organizing and managing the IT function.

Executives must monitor the firm's position on the strategic grid in order to adjust the management strategy if an IT project causes the firm to shift from one quadrant to another.

**HENDERSON AND VENKATRAMAN'S STRATEGIC ALIGNMENT MODEL** assesses business and IT alignment across the components of the business model.

**There are four domains of Henderson and Venkatramen's Strategic Alignment Model:** strategy, business, IT, *and* capabilities. [See Figure 1.7.]

**The strategy domain** assesses alignment in terms of context, purpose, positioning, projects, *and* goals.

**Strategy can be aligned with the business domain** to assess alignment in terms of business strategy.

**Strategy can be aligned with the IT domain** to assess alignment in terms of IT strategy.

**The capabilities domain** assesses alignment in terms of leadership, people/partners, processes, organization, *and* infrastructure.

**Capabilities can be aligned with the business domain** to assess alignment in terms of business capabilities.

**Capabilities can be aligned with the IT domain** to assess alignment in terms of IT capabilities.

**Value is created** through alignment across all four domains.

Thus, value is depicted in the center of the model.

EO 5. **FIVE KEY QUESTIONS GUIDE DECISIONS ON IT'S IMPACT ON STRATEGY:**

1. **Can IT reengineer core value activities and change the basis of competition?**

IT changes the basis of competition when it informs and transforms, especially across business boundaries.

The primary goal of IT in the 1950s and 1960s was to automate routine, information-intensive transactions, like payroll processing and ledger postings, to increase efficiency and productivity.

**The benefits of IT greatly increased when** firms extended IT applications to interactions with customers, suppliers, distributors, and other value chain participants.

**Using IT to integrate the value chain lets the firm** eliminate redundancies, reduce cycle time, *and* improve efficiency and productivity.

**Access to information** facilitates understanding of operations, improves coordination and control, lets the firm personalize services, enhances strategic position, helps the firm differentiate its existing goods and services, *and* creates new IT-enabled goods and services.

American Hospital Supply Corporation (**AHSC**) used IT to transform (not just automate) its activities in the late 1960s when it trained hospital staff to order supplies by telephone using punch cards and card-reading computers.

American Airlines (**AA**) transformed its activities in the late 1960s by giving large travel agencies computer terminals to check airline schedules posted on AA's internal reservations system.

AHSC and AA used IT not only to automate activities but also to change the basis of competition.

These days, *all* major firms try to use IT and IT innovations to increase competitiveness.

2. **Can IT shift the balance of power among buyers and suppliers?**

Firms that use successful IT innovations before their competitors do create powerful competitive advantages.

AHSC became a dominant supply chain services provider in the hospital industry because it encouraged channel consolidation to address customers' preferences for a multi-vendor marketplace without the need to deal with multiple suppliers.

Some thought the Internet would shift the balance of power from **producers** (manufacturers of goods, providers of services) to **channel players** (wholesalers, distributors, retailers).

It did at first, but eventually the well-established producers regained their market positions.

It is *not yet* clear how post-IT buyer-seller power relationships will eventually stabilize.

3. **Can IT build or reduce barriers to entry?**

Before the Internet existed, firms used IT to create barriers to entry by establishing expensive proprietary networks, transactions systems, and databases, so entering firms faced huge startup costs just to compete.

**Internet technologies may lower entry barriers for all players in online markets by**

a. lowering the costs of participating in those markets *and*

b. making it easier for participants to use common, shared platforms and to create and sever ties with other firms.

**Players in online markets create competitive advantages by**

a. learning and responding more quickly to new knowledge,

b. building proprietary systems that are not easily replicable, *and*

c. attracting loyal customers.

4. **Can IT increase or decrease switching costs?**  
**IT increases switching costs when** IT users find the system easy to use but hard to stop using. Customers become hooked on the new system and avoid buying from other firms.  
 A high switching cost creates customer loyalty.  
 Switching costs on the Internet are typically low because customers with Internet access switch easily from seller to seller.  
**Financial software vendor, Intuit, used the Internet to increase switching costs by** creating programs that made it necessary for customers to re-enter large numbers of data if they switched to another service.
5. **Can IT add value to existing products and services or create new ones?**  
**IT can add value to existing products and services by**
  - a. **improving the product**--Computer chips in cars control air temperature and braking systems.  
 OnStar service lets customers get driving directions, call for help, and open locked car doors.
  - b. **increasing the efficiency of market research**--Market research firms use scanner data from grocers and other retailers to analyze their customers' buying trends.
  - c. **transforming products into digital form**--such as e-books, e-journals, and digital music.

EO 6. **FOUR QUESTIONS GUIDE ANALYSIS OF THE STRATEGIC RISK OF IT:**

1. **Can emerging technologies disrupt current business models?**  
**Disruptive technology**
  - a. evolves significantly faster than the dominant technology in the industry;
  - b. facilitates new goods, services, pricing, or business models that change competition in a way that established competitors can not match; *and*
  - c. emerges at a time that coincides with regulatory changes and/or customer dissatisfaction that significantly limits the abilities of existing competitors to respond.
 Disruptive technology can give entrepreneurs and venture capitalists a competitive advantage *if* an established competitor's product positioning with its customer base ties it to a good/service trajectory that precludes the introduction of new offerings that use emerging technologies.
2. **Is the timing right to take advantage of an IT opportunity?**  
 Established competitors must avoid introducing new technologies too early *or* too late.  
**If new technology is introduced too early**, it increases the risk that the technology will fail or that the standards will change.  
**If technology is introduced too late**, the market could close before the competitor can set its position and gain the benefits of the technology.
3. **Does IT lower entry barriers?**  
 In recent years, IT factors that have lowered entry barriers include the broad availability of the Internet and other low-cost, nonproprietary technologies.
4. **Does IT trigger regulatory action?**  
 An overly successful IT advantage can lead to claims of unfair competition and pressure for government regulation.  
**Past situations have resulted in**
  1. forced divestiture,
  2. expensive litigation, *and/or*
  3. restrictions on future strategic options.**Firms can avoid those results through**
  - a. the clearly defined allocation of ownership and control *and*
  - b. the design of a **collaborative governance structure** (a system in which the parties work together in decision-making and problem solving).