

Chapter 2 Strategy and Technology: A Manager's Guide to Harnessing Technology
Separates Winners from Losers

John Gallaugh - Information Systems: A Manager's Guide to Harnessing Technology, version 2.0

COPYRIGHT PAGE:

Published by:
Flat World Knowledge, Inc.

© 2013 by Flat World Knowledge, Inc. All rights reserved. Your use of this work is subject to the License Agreement available here <http://www.flatworldknowledge.com/legal>. No part of this work may be used, modified, or reproduced in any form or by any means except as expressly permitted under the License Agreement.

Chapter 2

Strategy and Technology: Concepts and Frameworks for Understanding What Separates Winners from Losers

Section 2.1

True/False Questions

1. A firm's financial performance that consistently outperforms its industry's peers is known as operational effectiveness.
False; Easy
2. According to Michael Porter, the reason many firms suffer margin-eroding competition is because they have defined themselves according to strategic positioning rather than operational effectiveness.
False; Moderate
3. When technology can be matched quickly, it is rarely a source of competitive advantage.
True; Easy
4. According to the resource-based view of competitive advantage, if a firm is to maintain sustainable competitive advantage, it must control a set of exploitable resources that are valuable and can be substituted easily.
False; Moderate

Multiple Choice Questions

1. A firm's financial performance that consistently outperforms its industry's peers is known as _____.
 - a. comparative advantage
 - b. absolute advantage
 - c. sustainable competitive advantage
 - d. first mover advantage
 - e. operational efficiency advantage**c; Easy**
2. Which of the following statements about technology is true?
 - a. Technology alone is enough to provide sustainable competitive advantage to a firm.
 - b. Technology plays a marginal role in creating strategic differences.
 - c. Technological improvements are not important in strengthening a firm's strategic advantages.
 - d. Technological improvements can be copied by rivals, leading to a profit-eroding arms race.
 - e. Technology cannot be used by late entrants to gain a share of the industry.**d; Easy**
3. Operational effectiveness refers to:
 - a. the implementation of technology in a business context.
 - b. performing the same tasks better than rivals perform them.
 - c. the number of times inventory is sold or used during the course of a year.
 - d. performing different tasks or the same tasks in different ways.
 - e. matching the benefits of a successful position while maintaining an existing position.**b; Easy**

4. Dell has traditionally focused on streamlining its supply chain to cut manufacturing costs. However, competitors have started replicating Dell's technique, thereby cutting into Dell's market share. The model followed by Dell's competitors is an example of _____.
a. strategic positioning
b. straddling
c. an imitation-resistant value chain
d. operational effectiveness
e. scale advantages

d; Moderate

5. The _____ problem exists when rivals watch a pioneer's efforts, learn from their successes and missteps, and then enter the market quickly with a comparable or superior product at a lower cost.
a. late entrant
b. early starter
c. first mover
d. intellectual property
e. fast follower

e; Easy

6. Operational effectiveness is usually not enough to yield sustainable competitive advantage because:
a. it is not profitable for firms to perform the same tasks differently from their rivals.
b. technology can be easily acquired.
c. firms adopting such an approach have high switching costs.
d. firms attempt to match the benefits of a successful position while maintaining their existing position.
e. it is unprofitable to perform tasks that are different from those of rivals.

b; Moderate

7. _____ refers to performing different tasks than rivals or the same tasks in a different way.
a. Straddling
b. Operational effectiveness
c. Strategic positioning
d. Vertical integration
e. Scale advantage

c; Easy

8. A firm is said to be _____ when it attempts to match the benefits of a successful position while maintaining its existing position.
a. switching
b. straddling
c. dovetailing
d. streamlining
e. vertically integrating

b; Easy

9. According to Porter, strategy is fundamentally about being _____.
a. different
b. efficient
c. superior
d. scalable

e. profitable

a; Easy

10. According to the resource-based view of competitive advantage, if a firm is to maintain a sustainable competitive advantage, it must control a set of resources that have four critical characteristics. Which of the following is one of those characteristics?

- a. Valuable
- b. Easily substitutable
- c. Perfectly imitable
- d. Commonly available
- e. Innovative

a; Moderate

11. Many telecom firms began digging up the ground and laying webs of fiberglass to meet the growing demand for Internet connectivity. However, rivals and startups began to imitate these firms and soon these new assets were not so rare and each day they seemed to be less valuable. It can be inferred from this example that:

- a. resource-based thinking can help avoid the trap of carelessly entering markets simply because growth is spotted.
- b. the telecommunications market is only big enough to support one or two major players.
- c. the immense scale advantages enjoyed by major firms can help them fight off competition from newer entrants.
- d. technology assets that require high investment and maintenance are liable to becoming obsolete much quicker than others.
- e. the scale of technology investment required to run a business is not a huge enough factor to act as a barrier to entry for new, smaller competitors.

a; Moderate

12. In _____, the light inside fiber is split into different wavelengths in a way similar to how a prism splits light into different colors.

- a. polarization
- b. time-division multiplexing
- c. space-division multiplexing
- d. frequency hopping spread spectrum
- e. dense wave division multiplexing

e; Easy

Essay Questions

1. What are Porter's views in relation to operational effectiveness and strategic positioning? Contrast the two concepts.

According to Porter, the reason so many firms suffer aggressive, margin-eroding competition is because they've defined themselves according to operational effectiveness rather than strategic positioning.

Operational effectiveness refers to performing the same tasks better than rivals perform them.

Everyone wants to be better, but the danger in operational effectiveness is "sameness." This risk is particularly acute in firms that rely on technology for competitiveness, as technology can easily be acquired. Because of this, operational effectiveness is usually not sufficient enough to yield sustainable dominance over the competition.

In contrast to operational effectiveness, strategic positioning refers to performing different activities from those of rivals, or the same activities in a different way. According to Porter, strategy is fundamentally about being different. While technology itself is often very easy to replicate, it can also play a critical role in creating and strengthening strategic differences—advantages that rivals will struggle to match.

Moderate

Section 2.2

True/False Questions

1. Firms that build an imitation-resistant value chain develop a way of doing business that others struggle to replicate.
True; Easy
2. A trademark is the symbolic embodiment of all the information connected with a product or service of a firm.
False; Easy
3. A salesperson's ability to effectively bargain with his/her consumers is called viral marketing.
False; Easy
4. Businesses benefit from economies of scale when the cost of an investment can be used in serving a niche customer base.
False; Easy
5. The scale of technology investment required to run a business can act as a barrier to entry by discouraging new, smaller competitors.
True; Easy
6. Dominant firms with low switching costs can be rapidly overtaken by strong rivals.
True; Moderate
7. Commodities are products or services that vary across multiple vendors.
False; Easy
8. Network externalities exist when a product or service becomes less expensive as more people use it.
False; Moderate
9. Metcalfe's Law is used to explain the concept of switching costs.
False; Moderate
10. In the United States, business models cannot be patented because the field of business is extremely dynamic.
False; Moderate

Multiple Choice Questions

1. The set of activities through which a product or service is created and delivered to customers is known as a(n) ____.

- a. marketing plan
- b. value chain
- c. inventory turnover
- d. strategic position
- e. pure play

b; Easy

2. Which of the following represents one of the primary components of the value chain?

- a. Outbound logistics
- b. Firm infrastructure
- c. Human resource management
- d. Research and development
- e. Procurement

a; Moderate

3. As one of the primary components of the value chain, operations involves:

- a. service, maintenance, and customer support.
- b. sourcing and purchasing functions.
- c. delivering products or services to consumers, distribution centers, retailers, or other partners.
- d. turning inputs into products or services.
- e. new product and process design.

d; Moderate

4. _____ involves functions that support the whole company, including general management, planning, information systems, and finance.

- a. Research and development
- b. Operations
- c. Firm infrastructure
- d. Human resource management
- e. Inbound and outbound logistics

c; Easy

5. Firms that compete on _____ rather than operational differences, have no problem adopting third-party ERP software.

- a. scale advantages
- b. product uniqueness
- c. pricing strategies
- d. switching costs
- e. vertical integration

b; Moderate

6. Dell, previously the world's number one PC manufacturer, has seen its market share shrink because of rivals copying its value chain and reducing the price advantage it enjoyed over rivals. Dell's present struggles:

- a. underscore the importance of continually assessing a firm's strategic position among changing market conditions.
- b. are a result of rivals adopting supply chain management of software products that have yielded competitive advantages.
- c. imply that if a firm's value chain helps to create and strengthen other strategic assets over time, it can be a key source for competitive advantage.

- d. highlight the fact that scale advantages of an established firm are a huge factor in discouraging newer entrants to a market.
- e. demonstrate that resource-based thinking can help firms avoid the trap of carelessly entering markets simply because growth is spotted.

a; Moderate

7. A(n) _____ is the symbolic embodiment of all the information connected with a product or service.
- a. trademark
 - b. copyright
 - c. patent
 - d. brand
 - e. advertisement

d; Easy

8. A strong brand can be an exceptionally powerful resource for competitive advantage by proxying _____ and inspiring _____.
- a. strategy; innovation
 - b. quantity; performance
 - c. marketing; respect
 - d. quality; trust
 - e. investment; profits

d; Moderate

9. Leveraging consumers to promote a product or service is known as _____.
- a. straddling
 - b. affiliating
 - c. long tailing
 - d. crowdsourcing
 - e. viral marketing

e; Easy

10. Benefits related to a firm's size are referred to as _____.
- a. network effects
 - b. brand recall
 - c. scale advantages
 - d. vertical integration
 - e. disintermediation

c; Easy

11. Businesses benefit from economies of scale when the cost of an investment can be:
- a. spread across increasing units of production.
 - b. used in serving a niche and loyal customer base.
 - c. used to build a brand image for products through advertising.
 - d. leveraged to recruit consumers to promote a product or service.
 - e. diverted to implementing technology upgrades in the business model.

a; Moderate

12. _____ exist when consumers incur an expense to move from one product or service to another.
- a. Network effects
 - b. Switching costs

- c. Economies of scale
- d. Competitive advantages
- e. Profit margins

b; Easy

13. Apple's dominance of smartphone and tablet markets has allowed the firm to lock up 60 percent of the world's supply of advanced touch-screen displays, and to do so with better pricing than would be available to smaller rivals. This is an example of:
- a. network externalities that make Apple valuable.
 - b. high switching costs for suppliers.
 - c. a complex tech product establishing itself as a killer brand.
 - d. a growing firm gaining bargaining power with its suppliers or buyers.
 - e. low search costs associated with a famous brand.

d; Easy

14. Netscape, which once controlled more than 80 percent of the market share in Web browsers, lost its dominant position when customers migrated to Internet Explorer, Microsoft's Web browser. Internet Explorer was easy to install and had no significant differences in terms of usability. This example serves to illustrate that:
- a. fast-following smaller firms are always ready with newer and possibly superior products.
 - b. customers of technology companies are becoming increasingly savvy and more demanding.
 - c. the open source nature of technology ensures that no firm can expect to monopolize a market.
 - d. firms need to employ increasingly stringent intellectual property norms to guard against infringements from smaller, competitive rivals.
 - e. firms with low switching costs can be easily and rapidly overtaken by strong rivals.

e; Moderate

15. Which of the following represents one of the sources of switching costs?
- a. Marketing expenses
 - b. Mergers and acquisitions
 - c. Greenfield investments
 - d. Search costs
 - e. Obsolete technology

d; Easy

16. New entrants to a market must ensure that the value they offer exceeds the incumbents' value in addition to any perceived ____.
- a. customer switching costs
 - b. market depreciation
 - c. network effects
 - d. advertising expenses
 - e. scale advantages

a; Easy

17. Consumers buying commodities are highly ____ since they have so many similar choices.
- a. quality-conscious
 - b. price-focused
 - c. brand-driven
 - d. technologically discriminating
 - e. loyal

b; Easy

18. _____ Law is said to be at play when the value of a product or service increases as its number of users expands.
- a. Amdahl's
 - b. Bradford's
 - c. Campbell's
 - d. Metcalfe's
 - e. Einasto's

d; Easy

19. The paths through which products or services get to customers are known as _____.
- a. information pathways
 - b. vertical markets
 - c. distribution channels
 - d. proxy networks
 - e. horizontal markets

c; Easy

20. Third parties that promote a product or service, typically in exchange for a cut of any sales are known as _____.
- a. brand partners
 - b. coopetitors
 - c. market cousins
 - d. proxy servers
 - e. affiliates

e; Easy

21. The patent system is often considered to be unfairly stacked against start-ups because:
- a. bigger multinational firms enjoy patent protection in all countries as opposed to start-ups, which are domestic firms that do not get such protection for the most part.
 - b. the intellectual property laws are not adequate to protect the interests of smaller firms from infringements.
 - c. the patent system grants patents for innovations on a differential basis, with bigger firms getting precedence over start-ups.
 - d. high litigation costs coupled with a few months of litigation can sink an early stage firm.
 - e. patents are granted by the patent system on an ad hoc basis wherein firms that have been in business longer get patent protection for longer periods of time.

d; Moderate

Essay Questions

1. List the various components of a value chain and give a brief description of each of them.
- The value chain is the “set of activities through which a product or service is created and delivered to customers. There are five primary components of the value chain and four supporting components. The primary components are as follows:
- Inbound logistics—getting needed materials and other inputs into the firm from suppliers
- Operations—turning inputs into products or services
- Outbound logistics—delivering products or services to consumers, distribution centers, retailers, or other partners

Marketing and sales—customer engagement, pricing, promotion, transaction

Support—service, maintenance, and customer support

The secondary components are:

Firm infrastructure—functions that support the whole firm, including general management, planning, IS, and finance

Human resource management—recruiting, hiring, training, and development

Technology/research and development—new product and process design

Procurement—sourcing and purchasing functions

Moderate

Fill in the Blanks

1. _____ software is implemented in modules to automate the entire value chain.
Enterprise resource planning; Easy
2. Firms that benefit from scale economies as they grow are sometimes referred to as being _____.
scalable; Easy
3. _____ are products or services that are nearly identically offered from multiple vendors.
Commodities; Easy
4. _____ effects exist when a product or service becomes more valuable as more people use it.
Network; Easy
5. _____ hold intellectual property not with the goal of bringing novel innovations to market but instead in hopes that they can sue or extort large settlements from others.
Patent trolls; Easy

Section 2.3

True/False Questions

1. Technology-centered businesses offer low barriers to entry.
True; Easy
2. Timing and technology alone will not yield sustainable competitive advantage.
True; Easy
3. Market entry is the same as building a sustainable business.
False; Easy

Multiple Choice Questions

1. Moving first pays off when the time lead is used to create:
 - a. the latest technology at a firm's production plant.
 - b. operational effectiveness to harness maximum profitability.
 - c. critical resources for competitive advantage.
 - d. high stock value to generate funds for expansion.
 - e. market entry to ensure sustainable competitive advantage.**c; Easy**

Essay Questions

1. Time and technology can be enablers for competitive advantage. Explain this statement.
Even though barriers to entry for tech-centric industries are rather low, it's absolutely critical to understand that market entry is not the same as building a sustainable business and just showing up doesn't guarantee survival. Timing and technology alone will not yield sustainable competitive advantage. Yet both of these can be enablers for competitive advantage. Put simply, it's not the time lead or the technology; it's what a firm does with its time lead and technology. True strategic positioning means that a firm has created differences that cannot be easily matched by rivals. Moving first pays off when the time lead is used to create critical resources that are valuable, rare, tough to imitate, and lack substitutes. Anything less risks the arms race of operational effectiveness. Building resources like brand, scale, network effects, switching costs, or other key assets can provide firms with a shot. But guessing wrong about the market or botching up execution means failure or inviting direct competition. It is true that most technologies can be copied. But the lead that each of the most successful tech-enabled firms had was leveraged to create network effects, switching costs, data assets, and helped build solid and well-respected brands.
Moderate

Section 2.4

True/False Questions

1. Technology plays the most significant role in shaping and reshaping Porter's five forces.
True; Easy
2. Political shock and social changes can help alter the competitive landscape.
True; Easy
3. Changes that impact one industry do not necessarily impact other industries in the same way.
True; Easy
4. If a firm's goods are highly differentiated, the Internet can lessen the firm's supplier bargaining power.
False; Moderate

Multiple Choice Questions

1. Which of the following is one of Porter's five forces?
 - a. Availability of competitors in the market
 - b. Total cost of ownership
 - c. Purchasing power parity of consumers
 - d. Threat of new entrants
 - e. Strength of intellectual property laws**d; Moderate**
2. Which of the following is a source of bargaining power of buyers?
 - a. Greater choice of products
 - b. High switching costs
 - c. Loyalty programs

- d. Network effects
- e. Differentiated products

a; Moderate

3. The degree to which complete information is available is known as _____.
 a. information assurance
 b. data proximity
 c. operational alertness
 d. price transparency
 e. data consolidation

d; Easy

4. Kathy has access to the Internet and is able to search and compare the price and quality of the products she wants to purchase. However, Martin does not have access to the Internet and stays in a remote town where he is not able to get such details regarding the product or service he wants to purchase. Such a decision situation where Kathy has more or better knowledge about products or services than Martin is known as _____.
 a. strategic superiority
 b. positional awareness
 c. data redundancy
 d. operational precedence
 e. information asymmetry

e; Easy

Essay Questions

1. What are the “five forces of industry competitive analysis” put forth by Porter? What effect has the Internet had on the bargaining power of buyers and sellers?
 One of the most popular frameworks for examining a firm’s competitive environment is Porter’s five forces, also known as the Industry and Competitive Analysis. The five forces this framework considers are:

- the intensity of rivalry among existing competitors
- the threat of new entrants
- the threat of substitute goods or services
- the bargaining power of buyers
- the bargaining power of suppliers

In markets where commodity products are sold, the Internet can increase buyer power by increasing price transparency. The more differentiated and valuable an offering, the more the Internet shifts bargaining power to sellers. Highly differentiated sellers that can advertise their products to a wider customer base can demand higher prices.

Moderate

Fill in the Blanks

1. _____, also known as the Industry and Competitive Analysis, is a popular framework for examining a firm’s competitive environment.
Porter’s five forces; Easy
2. A decision situation where one party has more or better information than its counterparty is called a(n) _____.

information asymmetry; Easy