

# Answers to End-of-Chapter Questions

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## Chapter 2:Corporate Strategy, Performance, and Sustainability

### Review Questions

1. Define mission statement and corporate strategy.

Answer:

Mission statement-- A statement that provides direction for the firm's strategic plan. It might include descriptions of their goods and services, the processes they employ, the markets where they compete, their potential customers, and their distinctive competencies.

Corporate strategy-- a description of how the firm intends to compete, or provide value to its customers, both now and into the future.

2. What are the three competitive dimensions firms use to compete?

Answer:

Cost, quality, and customer service.

3. What are economies of scale?

Answer:

These are created when purchasing and manufacturing in bulk to reduce per-unit costs.

4. Define the seven aspects of customer service.

Answer:

*Speed* refers to the ability to complete the service quickly. *Flexibility* refers to the firm's ability to respond to a wide variety of customer expectations; it can also mean the firm can accommodate varying demand levels. In customer service terms, *reliability* refers to delivering a good or

service as promised. When products are sold such as a computer, customers want to know something about the after-sales *product support*—can the firm provide useful operating information, software support, and periodic upgrades? When talking to sales associates or service representatives, customers want to feel assured that the sales person is *knowledgeable* about the firm's products and truly understands or feels *empathy* for the customer. And finally, when things go wrong—the product fails to operate correctly or the restaurant's food is cold—customers expect an equitable compensation or arrangement. This capability is also known as *service recovery*.

5. What are operations strategies and how are they different from corporate strategies?

Answer:

Operations strategies are the set of decisions made within the operations function to support the overall mission and strategy of the firm. These decisions define how the operations function will contribute to the firm's ability to compete, and collectively, these are considered core competencies of the firm. So, these support the corporate strategies.

6. What do operations strategies have to do with core competencies?

Answer:

Operations strategies ARE the core competencies of the firm.

7. How can operations align its strategies with that of the corporation?

Answer:

Using product design, process design, production control systems, facility location, facility layout, purchasing, logistics, quality, inventory, and customer service. See Table 2.1.

8. What does performance measurement have to do with corporate strategy?

Answer:

To get a clear picture of overall performance, firms should develop an organization-wide system of performance measures linked to the firm's strategies. Managers need to know how the company is doing, and what needs to be fixed to enable the firm to accomplish its objectives.

9. What is a balanced scorecard?

Answer:

The balanced scorecard for performance measures, suggests that the use of 20 to 30 performance measures, balanced across four categories, is sufficient to assess organizational performance.

10. How is a dashboard different from a scorecard?

Answer:

Web-based scorecards are referred to as dashboards.

11. What is big data? Big data analytics?

Answer:

Big data is generally defined as large volumes of data collected (often in real-time or near real-time), using information technologies, from a number of sources including social networks, website clicks, emails, sales information, insurance information, billing information, and warranty information.

When organizations analyze this huge (or “big”) array of data using predictive modeling techniques to help uncover problems or opportunities to create value, then this is referred to as big data analytics.

12. What is business ethics? How does that differ from corporate social responsibility?

Answer:

Business ethics can be described as the application of ethical principles to business situations.

The practice of business ethics is also referred to as corporate social responsibility (CSR). Much of the discussion regarding corporate social responsibility argues that corporations should act ethically just as individuals should.

13. What is a fair trade product?

Answer:

A fair trade product refers to one which is manufactured or grown by a disadvantaged producer in a developing country who received a fair price for the goods.

14. What is sustainability? Is this a new concept?

Answer:

Sustainability means doing the right social and environmental things in ways that make economic sense. The objectives then are not only to sustain the world we live in, but to sustain the organization as well. The idea of sustainability is certainly not new as evidenced by the way early Native Americans thought and lived and as Gifford Pinchot, the first Chief Forester of the U.S. Forest Service wrote in an article in 1908.

15. To what does the triple bottom line refer?

Answer:

The triple bottom line has been coined to describe a firm's efforts to provide social, environmental, and economic benefits to stakeholders. This has also been referred to as the "three P's" which stands for people, planet, and profits.

## Discussion Questions

1. What would be a good mission statement for your university?

Answer:

Will vary, but something along the lines of providing education and education services to students, families, and the community.

2. How would you rank in order of importance, the three competitive dimensions for your university? For your favorite restaurant?

Answer:

Will vary. Recall they are cost, quality, and customer service.

3. Explain economies of scale using a manufacturing firm; your university.

Answer:

Example--Manufacturing firms buy in bulk, to achieve scale economies in purchase price.  
Universities use large classrooms to achieve scale economies on teacher costs.

4. Using a bank and then a fast-food outlet, describe all of the seven customer service aspects.

Answer:

Recall these are Speed, Flexibility, Reliability, Product support, Server knowledge, Empathy, and Service recovery.

5. What is the core competency of McDonald's? Southwest Airlines? Can they do it better than any of their competitors?

Answer:

McDonald's—fast, cheap food, and kids' entertainment. Mostly true.

SW Air—on-time, low-cost air travel. Mostly true.

6. Strategy tradeoffs must be considered in operations. Describe what these might be for a high quality bicycle manufacturer and then a low cost bicycle manufacturer.

Answer:

High quality bike mfg.—buy high quality materials, use precision assembly, expert people.

Low cost bike mfg.—buy in bulk, mass produce bikes, low cost labor.

7. Why are performance measures so important to the organization?

Answer:

Performance information tells operations managers about the processes in need of attention,

and also provides feedback regarding how well a process had been corrected. Simply put, companies operate better when managers and other employees monitor process performance.

8. How can financial and productivity measures be both good and bad for tracking a firm's performance?

Answer:

Financial performance measures don't tell the whole story. Windfall profits occurring when industry prices rise, as seen over the years in the oil industry, say nothing about how effectively an oil company's processes are being managed.

Productivity measures allow firms to view the impact of one or more of the firm's inputs (such as the cost of labor) on the firm's outputs (such as units produced or customers served), but do not allow the firm to determine the actual performance of any of the processes behind these elements.

9. Using the formula for labor productivity, describe all the ways a firm could increase labor productivity.

Answer:

Increase numerator, while holding denominator constant; decrease denominator, while holding numerator constant; increase numerator while decreasing denominator; increase numerator faster than the denominator is increasing; decrease numerator slower than denominator is decreasing.

10. Using Table 2.2, list a number of performance measures you might use for a sandwich shop.

Answer:

Will vary.

11. How could a balanced scorecard help to improve a firm's performance measurements? Design one for your performance as a student.

Answer:

It makes the firm spread out their measures across the four balanced scorecard categories-- financial, internal business, customer, and learning and growth.

12. Why is big data analytics becoming so important now?

Answer:

Because computer memory and speed is high enough to analyze mountains of customer data.

13. Could a small business use big data analytics? Explain.

Answer:

Through use of cloud services.

14. Are there any fair trade producers in the U.S. today?

Answer:

Yes—go to GreenAmerica.org.

15. How could your university use the triple bottom line? Are they already using it?

Answer:

Will vary.

## Point-and-Click Video Questions

1. How has the Internet impacted strategic planning?

Answer:

It has created more tools (email, website, social sites), so strategic planning has become more important.

2. What is the minimum requirement for satisfying customers?

Answer:

Meeting their needs and expectations.

3. How could an individual determine their own core competency?

Answer:

By answering the question—“What are you better at than almost everyone you know?”

4. Why do you think Jack Dziak feels so strongly about the importance of performance measures? What was one of the things he said companies did wrong with regards to performance measurement?

Answer:

How else can a company allocate scarce resources? Managers need to base strategies and objectives on how the company is doing in various areas.

Companies often measure too many things.

5. What does Dr. Kaplan say about the objective of performance measures?

Answer:

Measure things so you can manage them.

6. Describe the “three V’s” of big data?

Answer:

Volume of data, variety of sources, and the velocity you need to deliver the data.

7. Why would a farmer in Argentina want to sell cotton to a fair trade buyer?

Answer:

Usually, they get paid more than the market price.

8. What are some things that Walmart is doing to measure sustainability?

Answer:

They use a sustainability index; they use the sustainability consortium to help measure it.

## Problems

Use the following information for Problems 1 and 2:

During the past month, the Blakester Lounge served 1,500 customers with very few complaints. Their labor cost was \$3,000, material cost was \$800, energy cost was \$200, and building lease cost was \$1,500. For the month prior to that, their customers served was 1,320, with labor cost of \$2,900, material cost \$860, energy cost \$185, and building lease cost \$1,500.

1. Calculate the single-factor productivities and the overall multiple-factor productivities for each of the two months.

Answer:

1<sup>st</sup> month—labor prod=1320/2900=0.46 cust/labor\$; mat'l. prod=1320/860=1.53 cust/mat'l\$; energy prod=1320/185=7.14 cust/energy\$; lease prod=1320/1500=0.88 cust/lease\$

2<sup>nd</sup> month—labor prod =1500/3000=0.5 cust/labor\$; mat'l. prod=1500/800=1.88 cust/mat'l\$; energy prod=1500/200=7.5 cust/energy\$; lease prod=1500/1500=1.0cust/lease\$

2. Calculate the productivity growth for each productivity measure in Problem 1, from the first to the second month.

Answer:

Labor prod growth=(0.5-0.46)/0.46 = 8.7%; mat'l prod growth=(1.88-1.53)/1.53 = 22.9%; energy prod growth = (7.5-7.14)/7.14 = 5%; lease prod growth = (1-.88)/.88 = 13.6%.

3. During the past four months, the units produced and the labor hours are as shown below. Compute the monthly labor productivities and productivity growth for periods.

	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>
Units produced	1260	1340	1293	1324
Labor hours	328	332	321	318

Answer:

	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>
Labor prod	3.84	4.04	4.03	4.16
Growth		5.2%	-0.25%	3.2%

4. Nadia is concerned about the company's required annual productivity growth rate. For the upcoming three years and the expected labor hours, determine the production output required to maintain a four percent productivity growth rate.

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Units produced	42,240			
Labor hours	20,000	21,500	21,700	22,000

Answer:

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Growth		4.0%	4.0%	4.0%
Units	42,240	43,930	45,687	47,514

Use the formula:  $(\text{new-old})/\text{old} = .04$

So, for 2017, new =  $.04(42240) + 42240 = 43,930$ .

5. Given the information below, calculate the single-factor and total factor productivities.

<u>Output</u>	<u>Inputs</u>
325,000 units	6400 labor hours @ \$15.00 per hour
Sales price = \$1249.00	Material cost = \$40,625,000
	Utilities cost = \$4400

Answer:

$$\text{Labor prod} = (325000 \times 1249) / (6400 \times 15) = 4228.4$$

$$\text{Mat'l. prod} = (325000 \times 1249) / 40625000 = 9992$$

$$\text{Utility prod} = (325000 \times 1249) / 4400 = 92,255.7$$

$$\text{Total prod} = (325000 \times 1249) / (6400 \times 15 + 40625000 + 4400) = 9.97$$

6. For the previous month, the C.J. Lounge served 1,500 customers with very few complaints. Their labor cost was \$3,000; material cost was \$800; energy cost was \$200; and building lease cost was \$1,500. Calculate the single-factor productivities and the overall multiple-factor productivity. How could they improve the productivity?

Answer:

Single factor productivities: labor—0.5 customers/labor\$; material—1.875 customers/material\$; energy—7.5 customers/energy\$; building—1 customer/lease\$. Multifactor productivity—0.272 customers/total\$. They could improve productivity by possibly increasing the number of hours they are open or adding seats; they could add technology to improve labor productivity, or try to find a cheaper supplier.

7. The Ultra Ski Shop rents snow skis during the ski season and employs five people. The owner wants to track productivity performance measures using the data shown below. Determine the single-factor productivities and multiple-factor productivities for the two years. Discuss potential problems that you find.

Inputs and Outputs	2014
Skis rental revenue	\$66,000
Labor cost	\$10,800
Lease payments	\$24,000
Inputs and Outputs	2015
Skis rental revenue	\$69,500
Labor cost	\$11,600
Lease payments	\$24,500

Answer:

Single-factor productivities

2014: Labor productivity =  $\$66,000 \text{ sales} / \$10,800 = 6.11 \text{ sales } \$ \text{ per labor } \$$ ; lease productivity =

$$\$66,000 / \$24,000 = 2.75 \text{ sales } \$ \text{ per lease } \$.$$

2015: Labor productivity =  $\$69,500 \text{ sales} / \$11,600 = 5.99 \text{ sales } \$ \text{ per labor } \$$ ; lease productivity =  
 $\$69,500 / \$24,500 = 2.84 \text{ sales } \$ \text{ per lease } \$.$

Multiple-factor productivities

2014:  $\$66,000 \text{ sales} / [\$10,800 + \$24,000] = 1.90 \text{ sales } \$ \text{ per input } \$.$

2015:  $\$69,500 \text{ sales} / [\$11,600 + \$24,500] = 1.93 \text{ sales } \$ \text{ per input } \$.$

Labor productivity grew from 2014 to 2015 by  $(5.99 - 6.11)/6.11 = -0.02$  or  $-2\%$ . The lease productivity grew by  $(2.84 - 2.75)/2.75 = 0.033$  or  $3.3\%$ . The multiple-factor productivity grew by  $(1.93 - 1.90)/1.90 = 0.016$  or  $1.6\%$ . Ultra management should look into why labor cost grew faster than ski revenue from 2014 to 2015.

8. Use the following information to analyze the financial and inputs/outputs of the organization from 2015 to 2016:

Financial Information	2015 Results	2016 Results
Net sales	\$1,372,000	\$1,416,400
Cost of goods sold (purchased items)	\$622,000	\$681,000
Net income after taxes	\$29,400	\$34,800
Current assets	\$822,000	\$841,000
Current liabilities	\$628,000	\$679,000
Avg. inventory value	\$288,500	\$312,000
<b>Inputs and Outputs</b>		
Units produced	22,000	24,870
Labor costs	\$228,200	\$242,000
Lease payments	\$24,000	\$26,500
Energy costs	\$18,300	\$18,900

Answer:

Financial Performance:

$$\text{Net profit margin} = \$29400/\$1372000 = 0.021(2015); 34800/1416400 = 0.025(2016)$$

$$\text{Current ratio} = \$822,000/\$628,000 = 1.31(2015); 841000/679000 = 1.24(2016)$$

$$\text{Inventory turnover} = \$622,000/\$288,500 = 2.16(2015); 681000/312000 = 2.18(2016)$$

Single-Factor Productivities:

Labor-- $22,000/228,200=0.096$  units/labor\$ (2015);  $24870/242000=0.103$  units/labor\$ (2016)

Material-- $22,000/622,000=0.035$  units/mat'l\$(2015);  $24870/681000=0.037$  units/mat'l\$(2016)

Lease-- $22,000/24,000=0.917$  units/lease\$(2015);  $24870/26500=0.938$  units/lease\$(2016)

Energy— $22,000/18,300=1.202$  units/energy\$(2015);  $24870/18900=1.316$  units/energy\$(2016)

#### Multiple-Factor Productivity:

$22,000/[228,200+622,000+24,000+18300]=0.025$  units/\$(2015); and  
 $24870/968400=0.026$  units/\$(2016).

#### Productivity Growth:

Labor— $(0.103-0.096)/0.096 = 7.3\%$

Material— $(0.037-0.035)/0.035 = 5.7\%$

Lease— $(0.938-0.917)/0.917 = 2.3\%$

Energy— $(1.316-1.202)/1.202 = 9.5\%$

Multiple factor— $(0.026-0.025)/0.025 = 4\%$

Use the following information for Problems 9 and 10:

The Hayley-Girl Soup Co. operations manager wants to calculate a number of performance statistics for an upcoming meeting using the information shown below:

Net sales = \$1,450,627      Cost of goods sold (purchases) = \$675,860

Current assets = \$327,176      Current liabilities = \$86,904

Rent = \$144,000      Avg. inventory value = \$163,465

Labor cost = \$226,693      Annual production = 2,608,184 cans

Net income after taxes = \$94,153

9. Calculate the profit margin, current ratio, inventory turnover, and purchasing efficiency (given an annual purchasing cost goal of \$600,000).

Answer:

Net profit margin =  $94153/1450627 = 6.49\%$

Current ratio =  $327176/86904 = 3.76$

Inventory turnover =  $675860/163465 = 4.13$

Purchasing efficiency =  $675860/600000 = 113\%$

10. Calculate the single-factor and multiple-factor productivities.

Answer:

Labor =  $1450627/226693 = 6.40$

Material =  $1450627/675860 = 2.15$

Lease =  $1450627/144000 = 10.07$

Total =  $1450627/(226693+675860+144000) = 1.39$

11. Given the information below, calculate the financial performance.

Net sales = \$10,187,125      Cost of goods sold (purchases) = \$4,325,219

Current assets = \$12,427,000      Current liabilities = \$2,432,804

Avg. inventory value = \$209,398 Net income after taxes = \$1,745,286

Answer:

Net profit margin =  $1745286/10187125 = 17.13\%$

Current ratio =  $12427000/2432804 = 5.11$

Inventory turnover =  $4325219/209398 = 20.66$

12. Mary Jane's Beauty Shop has recently invested money to add more equipment to enable more services to be offered at the shop. Given the following information evaluate their investment.

2014

2015

net income = \$752,000 equipment investment = \$28,000

labor cost = \$152,000 net income = \$763,000

energy cost = \$18,000 labor cost = \$154,000

material cost = \$32,000 energy cost = \$18,800

material cost = \$33,500

Answer:

2014

2015

Labor =  $752000/152000 = 4.947$   $763000/154000 = 4.955$  growth = 0.16%

Mat'l. =  $752000/32000 = 23.5$   $763000/33500 = 22.78$  growth = -3.06%

Energy =  $752000/18000 = 41.78$   $763000/18800 = 40.59$  growth = -2.84%

Total =  $752000/202000 = 3.723$   $763000/206300 = 3.698$  growth = -0.67%

The investment resulted in a lower total productivity, so it appears to be a bad investment.