CHAPTER 1

Purchasing and Supply Management

Chapter Outline

Case 1-1: Denniston Spices

Teaching Note

IMMEDIATE ISSUE

Develop an inventory build plan that balances stock-out risks with inventory holding and inventory spoilage costs.

BASIC ISSUES

- Forecasting and planning
- Risk management
- Total cost of ownership analysis
- ABC analysis

SUGGESTED STUDENT ASSIGNMENT

1. As Amy Lin, what is your analysis of the situation at Denniston Spices?
2. What recommendations would you make to Kevin Sherman regarding the inventory build of products supplied from Whittingham Foods and why?

POSSIBLE DISCUSSION QUESTIONS

1. How relevant is the data from 2012 and 2013? Are you prepared to use it?
2. How would you weight the costs of stock-outs versus inventory spoilage?
3. Do you think it is reasonable for Whittingham Foods to pre-ship three months of inventory?
4. Why should Denniston Spices accept all the risks of stock-outs and inventory spoilage?
5. Is there any other data that would want before making a recommendation?
6. Where are you going to store the inventory and who is going to be responsible?

ANALYSIS

This is a difficult situation without any easy answers. The first place to start is with the data provided in Exhibit 1 in the case to see if it provides any clues regarding what Amy Lin should be doing. Exhibit TN1 shows provides analysis of the data in the case exhibit. The first column (Mean) provides the average demand for the five months of data in 2012 and 2013. The second column simply uses the mean to establish a three month estimate, and the third column (cost), shows the value of the purchases for three months using the mean × cost/lb. The fourth column (STDEV) shows the standard deviation of demand. This analysis shows high variance caused by the wide fluctuations in demand. The case alludes to the fact that unusual events (merger, expansion and a special project) distorted the data.

I also used the data to calculate safety stock estimates using 2 × the standard deviation + mean. These data are provided in columns 5-11. Column 7 shows three months of safety stock inventory using the standard deviation data and column 8 shows the difference between column 7 and column 1. Column 11 (3 mon/M) shows the number of months of safety stock based on two standard deviations divided by the mean (column 1). The ranges in column 11 are 8-12 months, all far above the shelf lives of the products.

It would appear that historical demand provides little useful data on which to forecast demand. The option to say "we don't know" and throw the problem back to the supplier is not reasonable. There are plenty of examples of companies that have underestimated the supply chain problems created by ERP system implementations (see the references provided below for Hendricks and Singhal (2003) and Wailgum (2014)). Whittingham Foods is being proactive and coming to us early with a potential problem and we need to provide them with a forecast.

This is a situation where supply needs to work closely with sales to put a plan together. This is a situation where actively involving sales to put together a forecast is essential. A good place to start would be to do ABC analysis of Denniston's customers. Focusing on the A customers, sales can contact them in order to find out what they are projecting in terms of demand during the period in question.

From Amy's perspective, she should be focusing on the A products. For example total purchases for W9456 were $6,624 last year versus $1.5 million for W9451. Spending a lot of time on C items does not make sense. In 2013, total purchases of the eight products were approximately $3.0 million, of which two items (W9450 and W9451) represented 80% of the total costs – a textbook example of the 80/20 rule. Amy can ask sales, during their conversations with customers, to collect data for the A items. This information should help establish a range for the critical products in terms of volume and spend. Overstocking slightly on the B and C items would not be the end of the world, both in terms of carrying and spoilage costs.

<u>Logistics Issues</u>

An issue not specifically raised in the case, but should be discussed in class, is arrangements for storage. It is reasonable to assume that Denniston Spices does not have the ability to store an additional three months of inventory. A further question is whether Denniston Spices should be responsible for the inventory, or should Whittingham Foods be making these arrangements.

An option would be to negotiate an arrangement with Whittingham Foods for a vendor managed inventory agreement, where the supplier would take responsibility for inventory storage, including ownership. This would not preclude the need for a forecast, but would take the logistical and financial responsibility from Denniston Spices, including costs of inventory spoilage. Amy might decide to have Denniston Spices take responsibility for the approximately 240 B and C items, leaving the supplier with approximately 60 A items.

REFERENCES

Hendricks, K.B. and V.R. Singhal, "The effect of supply chain glitches on shareholder wealth," *Journal of Operations Management*, vol. 21, no. 5, 2003, p. 501-522.

Wailgum, T., "10 famous ERP Disasters, Dustups and Disappointments," CIO, March 24, 2009, http://www.cio.com/article/486284/10_Famous_ERP_Disasters_Dustups_and_Disappointments, accessed February 5, 2014.

Exhibit TN 1
Analysis of Monthly Demand Data

Mean (M)	3 × M	Cost	STDEV	2 × stdev	M + 2stdev	3 Months M + 2stdev	Difference 2 stdev - M	Cost	$ Difference 2 stdev - M	3 mon/M 2stdev/M
103	310	$27,918	61	226	329	988	678	$88,949	$61,031	10
3,036	9,107	$819,666	2,978	8,992	12,028	36,084	26,976	$3,247,551	$2,427,885	12
3,284	9,851	$1,921,023	1,508	6,300	9,584	28,751	18,899	$5,606,419	$3,685,396	9
2,589	7,768	$1,514,799	1,024	4,637	7,226	21,678	13,910	$4,227,153	$2,712,354	8
758	2,275	$147,849	202	1,161	1,920	5,759	3,484	$374,335	$226,486	8
371	1,112	$72,267	104	579	950	2,849	1,737	$185,169	$112,902	8
301	904	$99,396	102	506	807	2,422	1,518	$266,426	$167,030	8
1,291	3,872	$425,898	846	2,982	4,272	12,817	8,946	$1,409,921	$984,023	10
51	154	$36,237	4	60	111	334	180	$78,423	$42,186	6
26	78	$18,330	29	84	110	330	252	$77,623	$59,293	13
6	17	$1,131	8	23	28	85	68	$5,553	$4,422	15
426	1,279	$83,148	174	774	1,201	3,602	2,323	$234,148	$151,000	8
48	144	$17,280	49	146	194	581	437	$69,689	$52,409	12
18	55	$6,624	15	49	67	202	147	$24,210	$17,586	11
74	221	$26,568	63	199	273	819	597	$98,248	$71,680	11
56	169	$20,304	56	169	226	677	508	$81,244	$60,940	12

Case 1-2: Brennan Bank

Teaching Note

TEACHING OBJECTIVES

This short case provides an opportunity to delve into a number of different issues, including:

1. Purchasing for a service organization.
2. The price, quality, delivery, service trade-off.
3. Supplier selection and splitting of business.
4. The purchase of services.
5. Treatment of unsolicited proposals from suppliers.

I use this case in the first class in my purchasing course to provide an introduction to the procurement field and the course.

SUGGESTED STUDENT ASSIGNMENT

If you were in the position of Rachel Bonnell, what action, if any, would you take regarding Jolon's bid?

POSSIBLE DISCUSSION QUESTIONS

1. What importance is the check printing to the bank?
2. How would you do a cost analysis on a check printing order?
3. How would you evaluate a supplier of check printing for this bank?
4. How many suppliers are desirable for check printing?
5. What alternatives are open to Rachel Bonnell here?
6. What action will you take? Why?

DISCUSSION

Rachel Bonnell's first objective must be to assure that the flow of printed checks continues uninterrupted and with high quality to the bank's customers. A delay in check deliveries may create customer dissatisfaction with the bank's services. Quality issues, such as misspelled names and addresses would also cause customer frustration and reflect poorly on the bank's brand. Since each printing order is a small custom job, special attention to detail and rapid service are of vital concern here as compared to price. It is reasonable to assume that courier charges paid by the two current suppliers are significant. The recent cost study also showed that prices paid to suppliers were fair and that their cost performance was in line. Given this background, the low bid by Jolon becomes suspect.

Jolon's Bid

As long as Jolon's bid is unsolicited and unofficial it falls into a very special category. It seems clear from the case that Jolon's low price is an attempt to gain at least part of the check writing business. It also appears clear that Jolon's recovery of its costs would have to come from their promotion of "scenic checks" and other products that customers paid for themselves. What is it that Jolon proposes to do with our customers that our current printing firms are not doing? Is there a possibility that they may pursue our customers more aggressively? Is there any possibility that they might turn-off some of our existing customers? Is there also a possibility that they might be charging more for scenic checks than our current suppliers to make up for the losses on the regular check business? Provided that the answers to the above questions are not negative, there might be an advantage to our bank of having more scenic checks sold. This would mean that we would not have to pay for the standard personalized checks and it might help cut down on our annual commitment of $10 million per year. If one third of our customers who are currently using standard personalized checks would be switched to scenic checks, this might represent a saving of $3.3 million dollars per year. If such an opportunity realistically exists, perhaps the bank itself should be investigating ways and means of accomplishing this. Leaving it to a printing supplier to accomplish this task might not be in the bank's best interest.

Purchasing personnel are always bombarded by unsolicited, unofficial quotations. How to handle these "feelers" is part of the good buyer's art. Unless a supplier is willing to commit on paper the details of an offer it can only be assumed as non-existent. If Jolon represents a reasonable source, perhaps they should be given a chance to quote on the next round. No new suppliers such as Jolon should be given a significant amount of business until they have proven that they can handle all the intricacies. Thus, it could be several years at least before they could be considered a sound and proven supplier.

The one exception to the above remarks deals with the possibility that Jolon might have more advanced equipment, or better systems, to handle this type of work. If so, the question can be raised as to why they were not selected for this work before. Also, what was the quality of our cost analysis study if it did not reveal this kind of information?

If buyers started giving business to every supplier who came in with a low or unofficial quote, the world would be full of disappointed buyers. It is normally understood that a supplier, to take away business from well performing and established suppliers, must make it attractive enough for the buyer to switch. The easiest way to draw a buyer's attention is with a low price. Only when that price appears to have a longer time horizon attached to it, and the back-up of all of the appropriate services necessary to satisfactory completion of the order, should the supplier be seriously considered.

In this case the service aspect is at least as important as the cost of check printing. Faultless electronic transmission of data, security, rapid response and high quality printing to assure proper machine reading of checks are all part of a complex requirement in which supplier reliability and trust are vital.

Case 1-3: Hansen Equipment

Teaching Note

CASE SYNOPSIS

Kathy Saxton is a new buyer at Hansen equipment and has been put in charge of the wire management program (WMP). Kathy needs to develop a plan to consolidate the company's spend on wire and cables with the objective of reducing costs, shrinking inventories and improving service. Kathy will need to sell her plan to her boss and coworkers.

This case is part of a series case, with the case Bid Assessment as the immediate follow-on in Chapter 12. The third case in the series, Hansen Equipment (C), is in the teaching note for the Bid Assessment case and can be handed out in class during the Bid Assessment case discussion. Hansen Equipment (C) presents a different option (an in-house supplier store) not previously considered.

TEACHING OBJECTIVES

This case provides a context that many students can relate to – a person in a new job wanting to prove himself or herself. Issues addressed in this case include single sourcing, supplier selection and inventory control. It is a good introductory case in a supply management course or could be used on a class on the purchasing process (Chapter 3) or supplier selection (Chapter 12).

SUGGESTED STUDENT ASSIGNMENT

If you were in the position of Kathy Saxton, what would be the best way to proceed with the wire management program (WMP)? What recommendations would you make to Scott Carpenter and why?

POSSIBLE DISCUSSION QUESTIONS

1. What are the most important factors to consider when deciding on a supplier?
2. If the company goal is to reduce costs, is the WMP an appropriate method to accomplish this objective? Should Kathy suggest a better method for reducing purchasing costs?
3. Why is it important to take time when selecting a supplier?
4. What considerations are most important to Hansen in supplier selection?
5. Why have more than one supplier?
6. Is any additional information required for Kathy to make her selection?
7. How can Kathy find out more information about the suppliers in a short period of time? What internal and external resources should she consider?
8. What do you want to do next and why?

ANALYSIS

Kathy is new to Hansen and she wants to show she is capable of completing an important assignment. She does not know anyone in Hansen very well and is unfamiliar with the company's current suppliers and their capabilities.

To reduce the supplier base, fit with Hansen's current needs must be taken into consideration. Although cost savings are important, reducing the time to market is also important, especially for Hansen's customers. Therefore, Kathy should be leaning toward whichever supplier is most responsive to the company's 'rush' requirements, and can also offer competitive pricing. The supplier must be large enough to stock almost anything required, or have access to it in a short time, due to the possibility of customers specifying non-traditional products. Ideally, the supplier should consider Hansen's business to be important enough to provide excellent service.

Kathy should arrange to visit each of the potential suppliers in person, especially since they are local. A personal visit will allow her to observe the supplier's facility, warehouse, and get an impression of the supplier's motivation to supply Hansen. The financial viability and future goals of the organization should also be considered when assessing if a fit exists.

Having a single-source of supply would allow Hansen to take advantage of quantity pricing, sometimes referred to as leverage. Hansen and the chosen supplier may also be able to improve processes together, leading to a reduction in administrative expenses. As a buyer, Kathy will be able to focus her time on other procurement issues. However, with only one supplier, continuity of supply cannot be ensured. Therefore, the idea of having two suppliers, or at least a back-up supplier, must be considered. Two or three suppliers are still a significant reduction in the supplier base.

Two suppliers may be used in various ways. There are numerous ways to arrange what each supplies. They could supply specific products that best fit with their capabilities. Alternatively, one supplier could supply regular items and the second could supply rush/specialty products. If Kathy decides to use two suppliers, they may also be more conscious of pricing, especially due to potential product overlap. There is a possibility of collusion, but with commodity products, Hansen could always gauge the market periodically. The major downside is the potential that pricing may not be as favorable if the suppliers were single sourced.

Kathy is receiving some informal evaluation from various employees at Hansen, but she cannot justify the validity of their statements. She is also unfamiliar with potential personal connections that the employees have with the suppliers. The information from the receiving manager, Wesley Wen, who kept records on supplier performance, could be useful for Kathy.

ABC Analysis

Part of the class discussion can include Hansen's supplier base and total spend. The case indicates that the company has approximately 3,000 suppliers and a spend of $63 million. The following table uses these data and assumes a typical ABC distribution for a potential representation of the context at Hansen (see Chapter 8 for a description of ABC analysis):

Category	% Suppliers	# Suppliers	% Spend	$ Value	$/Supplier
A	10%	300	80%	$50.4 mm	$168,000
B	10%	300	10%	6.3 mm	$21,000
C	80%	2400	10%	6.3 mm	$2,625

The implication is that most companies, such a Hansen, has many small suppliers that represent a relatively small amount of the total spend. Consolidation of the supply base and leveraging spend volumes can lead to lower total costs.

ALTERNATIVES

1. Gather more information / do not make selection

Kathy can spend time collecting information and visiting suppliers. She might also check supplier references and contact comparable customers to get their opinions on supplier performance. As a new employee, Kathy wants to prove her abilities as a good decision maker, but she needs to collect more data before making a decision. She also wants to impress Scott Carpenter, who originated the WMP.

Gathering more information and establishing personal contact with the potential suppliers will give Kathy the opportunity to assess which ones are best capable of fulfilling Hansen's requirements. This alternative may be used as a first step, but will not satisfy the WMP objective.

The records kept by the Wesley regarding supplier performance need to be analyzed carefully. Kathy should sit down with Wesley, since not everything will be included in his database.

2. Choose one best candidate

With this alternative, Kathy can select the most capable supplier and negotiate a contract to supply all Hansen's wire and cable requirements. Kathy could use the information provided by Wesley to justify the selection and more time could be given to negotiating with the preferred supplier, rather than spending time on a bidding process.

This would be a better alternative if Kathy had more experience. Kathy may not presently be the best person to assess suppliers. Second, Wesley's information may not be an indication of a future performance. Lastly, since Kathy is relatively new, her negotiating skills may require honing, and she may not fully understand all details required for effective negotiation. Consequently, this alternative would not be the best choice in this circumstance.

3. Choose two (or three) best candidates

This option is similar to the second alternative. By selecting two suppliers Kathy has the opportunity to compare supplier performance. Given that on-time delivery is very important to Hansen's customers, it would be beneficial to have a second supplier to further guarantee availability.

There are a number of possible approaches for Kathy to use with this alternative. Kathy may select the best candidate for wire and also the best for cable. Alternatively, she could choose the supplier who had the best prices for both products, and also keep the second best supplier. In time, she could negotiate with the one that excelled in performance; thereby going from 6 suppliers down to 2 (or 3). This alternative is possible only if Scott agrees with having more than one supplier.

Although it should not be difficult to choose the best two suppliers from the group, many of the reasons for not choosing alternative #2 are also applicable here.

4. Use a bidding process

Kathy could send out request for quotations (RFQ) or request for proposals (RFP) to Hansen's supplier for all of its annual wire and cable requirements. A bid submission can be an excellent method for assessing supplier pricing. However, Kathy should screen the suppliers on the bid list based on their past performance, price competitiveness and ability to supply all of Hansen's requirements. This can be achieved by initially implementing Alternative #1.

There is quite a lot of information that can be gathered about suppliers, especially if the bids requests specific information. Some of the most creative ideas can be proposed simply by asking the supplier to explain why they would make the best fit with our organization. This will require potential suppliers to consider expectations for service, as opposed to focusing on pricing only.

Suppliers can spend a considerable amount of time on preparing bids. It is not fair for Kathy to ask a large number of suppliers to prepare quotes, only to select the most obvious and favored choice from the beginning.

Hansen is a reputable company, which has a large spend on wires and cables and is growing rapidly. Therefore, several suppliers will likely be very interested in winning and bid and provide a competitive proposal. This process can be also be used to screen potential suppliers and followed by negotiations to further improve the structure of the contract.

To avoid potential misunderstandings during the bidding process, some companies allow a post-bid meeting with suppliers to discuss their proposal in detail. This meeting is sometimes beneficial in creating improved proposals. However, these more meetings slow down the supplier selection process.

5. Use a bidding process and then negotiate final agreement

This alternative is similar to alternative #4, but with the added ability to negotiate aspects of the proposals. The bid analysis allows narrowing of the potential suppliers. This alternative is attractive if there are aspects of the most attractive bid(s) that could be improved.

The bidding process is effective in choosing one best candidate, but there may be aspects of that supplier's proposal that can be improved. Terms, certain product prices, or delivery may not be as favorable as that found in other proposals, which creates the possibility of negotiation and discussion. Similar to other alternatives, the negotiation process takes time and therefore increases costs. Yet, if potential benefits of post-bid negotiation are possible, it may be worth the effort. This alternative is possible, especially since Kathy will possess a greater understanding of the suppliers' abilities after the bids are returned and because there is no strict time pressure to make a selection. This alternative is best suited for circumstances where significant differences exist among the bids.

NEXT STEPS

Probably the best course of action for Kathy is to start with Alternative #1, which would allow her to gather information about the potential suppliers. It would be possible to meet and visit all suppliers in two weeks, considering they are all local. Information gathering would allow Kathy to get to know suppliers and enable her to assess their capabilities and interests in working with Hansen.

A logical next step would be for Kathy to implement Alternative #4 by sending out an RFQ or RFP to the best-qualified suppliers identified in the previous step. The bid request would include Hansen's current annual and forecasted requirements for all wire and cable. Suppliers should be encouraged to include innovative ideas to handle Hansen's requirements. If prices are relatively even, details regarding how the suppliers intend to service Hansen may be a differentiator. For example, details regarding safety stock arrangements and expediting rush orders may provide tangible benefits to Hansen.

TEACHING STRATEGY AND KEY POINTS

Hansen Equipment can be taught as a standalone case or it can be combined with the other two cases in this series (Bid Assessment and Hansen Equipment (C)). If you only have one class to teach the case, the Bid Assessment and Hansen Equipment (C) cases can be summarized on a couple of PowerPoint slides as part of a discussion at the end of class and the instructor can probe for student impressions. If the case series is to be covered over two classes, then the Bid Assessment case can be assigned at the end of the first class for the second session (e.g., do not disclose the Bid Assessment case until discussion of the Hansen case is completed). The Hansen (C) case can be covered at the end of the second class.

I usually spend a single class on this case. I start the Hansen case by asking for alternatives. I press the students for variations of different alternatives until the list includes the five alternatives covered in this teaching note. Students may also choose to raise other alternatives. I then transition to a discussion of the WMP, asking "What does Scott expect to achieve with the wire management program?" This discussion usually starts with a focus on cost savings and I get the students to explain where the cost savings would come from and how much they could expect to save. What should not get lost in this discussion is the other benefits for supplier consolidation as described above, such as better service. Using the ABC distribution of Hansen's spend, as shown above, can help drive home this point.

About 40 minutes into the class I ask the students to review the Bid Assessment case. Students need about 8-10 minutes to read the case. I ask for student impressions of the proposals from the suppliers. As some point in the discussion I ask someone to explain why some many suppliers declined to bid. Once again, I ask the students for a list of options. In the last ten minutes of class I use a PowerPoint slide to summarize Hansen Equipment (C) and have a short discussion of the outcome.

This teaching approach requires the instructor to cover a lot of ground in one class, which means you need to manage time properly. The case series can easily be spread over two classes if you have time, with Hansen Equipment (A) in the first class and Bid Assessment and Hansen (C) in the second class.

Key Points

There are several key points that the instructor can highlight at the end of class:

1. Managers can never have complete information, but in this case Kathy should take advantage of the time she has available to collect more information for this important decision.
2. Employee opinions and advice are helpful but can be biased. Focus on facts and data where possible.
3. The assignment of the WMP may be a test to see how the new buyer reacts, a way to meet others and familiarize herself with the suppliers, and/or a method of understanding important factors to purchasing within Hansen. It is also a way to assess Kathy's analytical and interpersonal skills.
4. A good method for finding out about a supplier's performance is to contact another organization currently using them.
5. Visiting a supplier will allow the buyer to assess many aspects, including size, inventory management practices, systems and processes, management and the general culture of the organization.
6. Single sourcing may lead to a closer relationship and the opportunities for cost savings. It also has risks of dependence on a single supplier. How to ensure that you are getting the best combination of cost, technology and service from a single source supplier over the long term is a major challenge for purchasers.

Chapter 01 Quiz Key

1. Evidence of the growth and influence of supply management in an organization includes:

A. fewer activities under the management or span of control of supply.
B. meaningful involvement at the operational level.
C. involvement in strategic planning.
D. executive status of the chief supply officer.
E. involvement in strategic planning and executive status of the chief supply officer.

Functions that are deemed critical to an organization typically have representation at the highest levels in the organization, have financial impact, broad span of control, and are involved in strategic decisions, such as mergers and acquisitions.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 1 Easy
Topic: Growth and influence

2. Company image may be directly influenced by:

A. treating suppliers in a fair and equitable manner.
B. complying with regulatory requirements.
C. sustainability practices of suppliers.
D. treating suppliers in a fair and equitable manner, complying with regulatory requirements and sustainability practices of suppliers.
E. complying with regulatory requirements and sustainability practices of suppliers.

How suppliers are treated will spread throughout the supply community; non-compliance with regulations may lead to negative publicity or fines; and poor supplier sustainability practices will reflect poorly, and may have legal implications, for the buying organization. One example is the collapse of the Rana Plaza in Bangladeshi in 2013, killing more than 1,100 people, which affected brands such as Walmart, Benetton and Loblaw.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Topic: Supply contribution

3. The use of the concepts of purchasing, procurement, supply, and supply chain management will vary from organization to organization depending on:

A. the organization's stage of development and/or sophistication.
B. the industry in which they operate.
C. the organization's competitive position.
D. the organization's stage of development and/or sophistication, the industry in which they operate and the organization's competitive position.
E. the organization's stage of development and/or sophistication and the industry in which they operate.

As with other areas of management, the degree and speed in which companies adopt leading supply practices varies.The level of sophistication may vary by industry because of the perceived relative importance of purchasing to organization success. Less sophisticated organizations frequently under appreciate the potential of supply and do not invest in resources to develop capabilities in this area. Competitive pressures force organizations to adopt best practices and take innovative approaches.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Topic: Purchasing and supply management

4. The design and management of seamless, value-added processes across organizational boundaries to meet the needs of the end customer is called:

A. supply chain management.
B. strategic sourcing.
C. value management.
D. customer relationship management.
E. strategic process management.

The components of the supply chain include downstream entities -- the organization's customers and their customers -- and upstream entities – suppliers and suppliers' suppliers. The focus is on minimizing costs and lead times across tiers in the supply chain to the benefit of the final customer.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Topic: Supply chain management

5. Supply has the potential to contribute to:

A. financial performance.
B. financial performance and competitive position.
C. profitability, competitive position and sustainability performance.
D. competitive position and sustainability performance.
E. financial performance, competitive position and sustainability performance.

Supply can potentially contribute directly to the company's financial performance through cost of purchased products and service and investments in inventory. The environmental footprint of any organization is affected by the environmental practices of suppliers. Superior supply capabilities and performance can be a source of competitive advantage.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Topic: Supply contribution

6. For an organization with revenue of $100 million, purchases of $60 million, and profit of $8 million before tax, a 10 percent reduction in purchase spend would result in an increase in profit of:

A. 10 percent.
B. 36 percent.
C. 57 percent.
D. 60 percent.
E. 75 percent.

If spend ($60 million) is reduced by 10 percent ($6M) then profit increases from $8 million to $14 million, with all else being equal. The $6 million increase in profit is a 75 percent increase (6/8 = 75 percent).

AACSB: Analytical Thinking
Accessibility: Keyboard Navigation
Blooms: Analyze
Difficulty: 3 Hard
Topic: Profit-leverage effect

7. Interest in the supply function as a managerial activity began:

A. before 1900 when railroads recognized it as an important function.
B. during World Wars I and II because of global materials shortages.
C. in the 1970s during a period of high inflation.
D. in the early 1980s with high interest rates and the costs of financing inventory.
E. more recently with the rise of e-commerce.

The function was recognized as an independent and important function by many of the nation's railroad organizations well before 1900, but it was not until the materials shortages of WWI and WWII that supply was recognized as a managerial activity.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Topic: Purchasing and supply management

8. The return on assets effect (ROA) quantifies and measures:

A. the indirect contribution of supply management to profitability.
B. any increase in sales that occurs at a greater rate than the cost of assets.
C. reduction in the allocations to the operating budget of the supply department.
D. the impact of supply actions on inventory and the balance sheet.
E. the effect on profitability of reduced spend compared to a sales increase.

Assets include goods held in inventory. The return on assets is a measure of the impact on the organization's balance sheet of a reduction, or an increase, in money tied up in these assets.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 1 Easy
Topic: Return-on-assets effect

9. In manufacturing organizations, the dollars spent with suppliers fall into what range as a percent of revenues?

A. 25 to 35
B. 30 to 60
C. 45 to 75
D. 50 to 80
E. 65 to 75

Empirical data indicate that manufacturing organizations spend 50-80 percent of revenues with suppliers while service organizations spend only 25-35 percent. This makes sense because manufacturers must buy inputs to transform into tangible outputs, and many manufacturers are highly capital-intensive and less labor-intensive. Service organizations spend less as a percent of revenue because they are more labor intensive and therefore spend more on labor (employees).

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Topic: Size of organizational spend and financial significance

10. Supply can influence risk management in which area(s)?

A. financial
B. operational
C. reputation
D. financial and operational
E. financial, operational and reputation

The supply function impacts the organization in terms of operational, financial and reputational risks. Financial risks are the most evident, such as the costs of purchased materials and services. Operational risks include supply disruptions. Reputational risks include inappropriate conduct of suppliers.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Remember
Difficulty: 1 Easy
Topic: Supply contribution

11. The supply area is a good training ground for managers because it provides exposure to:

A. accounting systems.
B. pressure of decision making under uncertainty.
C. various levels and functions in the organization.
D. accounting systems, pressure of decision making under uncertainty, and various levels and functions in the organization.
E. pressure of decision making under uncertainty and various levels and functions in the organization.

Many organizations include supply as part of their rotation system for high-potential employees. It exposes the employees to different parts of the organization, such as operation and engineering, as they address supply requirements. The day-to-day decisions can have a significant impact on the organization and allows for evaluation of individual judgement and willingness to assume responsibility.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Apply
Difficulty: 2 Medium
Topic: Supply contribution

12. A successful supply chain management strategy integrates:

A. processes and systems within and across organizations.
B. processes and systems within the organization.
C. the flow of materials within an organization.
D. the flow of information within the buying organization.
E. the flow of information with first tier suppliers.

The “chain” piece of supply chain management symbolizes the linkages between and among organizations. While internal integration is essential, an organization has not really embarked on supply chain management until it has expanded integration beyond the walls of its own organization.

AACSB: Reflective Thinking
Accessibility: Keyboard Navigation
Blooms: Understand
Difficulty: 2 Medium
Topic: Purchasing and supply management

Chapter 01 Quiz Summary

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AACSB: Analytical Thinking	1
AACSB: Reflective Thinking	11
Accessibility: Keyboard Navigation	12
Blooms: Analyze	1
Blooms: Apply	1
Blooms: Remember	4
Blooms: Understand	6
Difficulty: 1 Easy	6
Difficulty: 2 Medium	5
Difficulty: 3 Hard	1
Topic: Growth and influence	1
Topic: Profit-leverage effect	1
Topic: Purchasing and supply management	3
Topic: Return-on-assets effect	1
Topic: Size of organizational spend and financial significance	1
Topic: Supply chain management	1
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