

Case 1

Integrated Logistics

Overview

This case finds Tom Lippert, sales representative for DuPont Engineering Polymers (DEP), in a situation common to today's competitive sales environment. His company, as a supplier to a major manufacturer (GARD), is faced with changing times. GARD is in the midst of a "changing of the guard" as Mr. Lippert's long-time contact, Mike O'Leary, retires. O'Leary's successor, Richard Binish, brings a new set of supplier expectations to the fore of GARD's purchasing strategy. Over the years, the quality of competitors' products began to match DEP's. Firms now compete based on logistics quality. To keep the GARD business, DEP must improve its logistical performance to meet the customer's rising expectations.

The textbook illustrates a concept called the "shrinking service window." The idea behind the shrinking service window is that customers have begun to expect higher levels of service (higher fill rates) in less time (shorter order cycles). In GARD's case, a change in leadership is responsible for the new, higher expectations. The change, however, is indicative of the realization that logistics has become a strategic weapon. The case illustrates that DEP must either match competitors' service or face losing a major customer.

Solutions to Questions

1. A diagram of the DEP-GARD supply chain is provided on the next page.

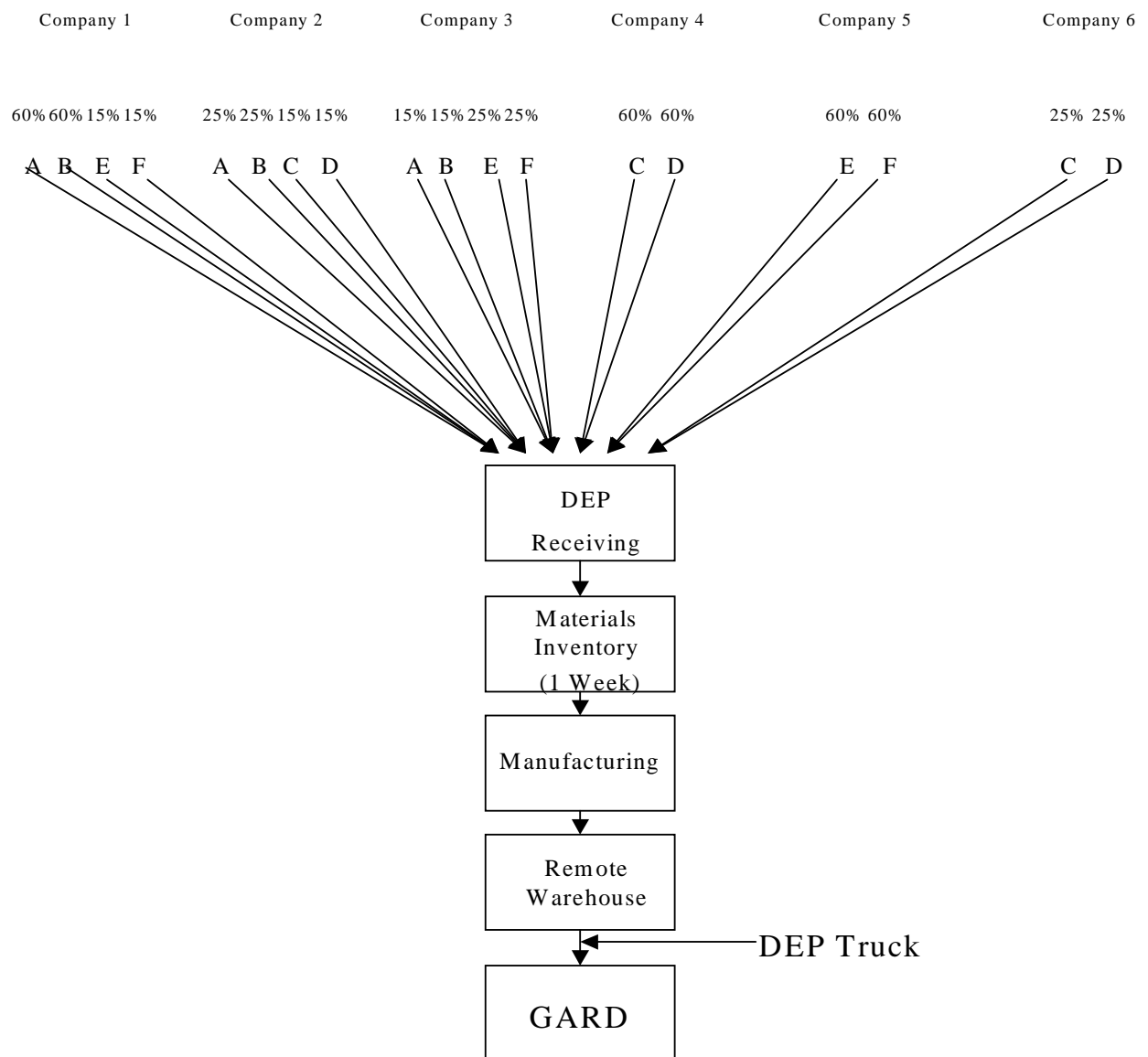
Stages that are adding value:

- Inbound transportation from the suppliers
- DEP packaging
- manufacturing
- product delivery

Stages that are not adding value:

- "dwell time" at the remote warehouse
- matching orders to paperwork
- materials receiving
- materials inventory

DEP-GARD supply chain



2. Minimum order cycle time: 8 days

Maximum order cycle time: 25 days

3. Yes, it appears that the performance cycle can be improved through the use of 25% and 15% suppliers. For example, Company 2 offers better service levels and less variability than Company 1. Using more reliable suppliers may result in higher prices on materials but this can be mitigated by reducing DEP's material inventories. Greater certainty on the part of suppliers reduces the need to maintain high stocks of inventory.

4. This is a question of opinion. People's resistance to change should be considered. In particular, manufacturing personnel will be tough to convince due to past experience.

5. The means of "selling" the idea to Mr. Binish is matter of opinion -- more of an art than science. Regardless of the specific effort, it should demonstrate why Binish should keep DEP as a core GARD supplier. This will involve conveying clear guidelines for making the desired service improvements while maintaining a competitive price -- providing Binish with the value he demands.

Below are samples of "Qualifying" and "Order winning" criteria.

"Qualifying criteria"

- 1) Good product quality
- 2) Competitive price
- 3) Service capability that exceeds the minimum standards

"Order winning criteria"

- 1) Consider changes that demonstrate that DEP is practicing the very service expectations that Binish is trying to implement. This would illustrate DEP's conceptual understanding of Binish's ideas.
- 2) Position GARD for electronic data interchange (EDI) or other asset- and information-sharing processes. EDI would allow Binish with "real time" information from DEP. These investments also help to solidify relationships.

These criteria will likely change over time. The shrinking service window illustrates how customers continue to expect more until eventually service approaches 100% fill rates and very short performance cycles.

This case suggests that supply chain management increases in sophistication with higher levels of performance. Unless these areas of improvement are addressed, supplying firms will be left behind as competitors strive to meet customers' ever-changing needs.

Case 2

Woodmere Products: Time Based Logistics at Work

Overview

From Woodmere's perspective, the HomeHelp partnership offers substantial rewards, but at a price. This case demonstrates the all-encompassing change that is sometimes required for a firm to maintain long-term competitive success. Change is very difficult to achieve in organizations large and small. Laborers, managers and executives alike establish "comfort zones" that are difficult to break. The case follows John Smith as he first studies the potential benefits of refocusing production and logistics strategies before promoting the idea to top management.

Solutions to Questions

1. As the supplier, Woodmere is faced with the ultimatum of effecting the change (implementing the time based service strategy) or losing the HomeHelp business. To implement the time based strategy will require new approaches to production and logistical operations as well as significant, constant investments in technology. The changes are likely to affect the way Woodmere conducts business with other customers and channel participants (suppliers, transportation providers, etc.).

As the customer, HomeHelp has issued the ultimatum to Woodmere Products. However, should Woodmere elect to turn down the opportunity, HomeHelp will have to look elsewhere for products and service.

Though the issue is open to debate, it seems that both firms stand to benefit from the time based strategy. Both firms stand to gain potential competitive advantages by being the first in their respective industries to adopt time-based logistics practices. Ideally, alliances should create synergy, where the dynamics of the whole is greater than the sum of the parts -- both firms succeed at levels unachievable when alone. As noted above, significant investment is required of each firm to see the strategy reach fruition.

2. **WoodmereProducts**

Benefits

- An exclusive relationship with HomeHelp that ensures generous revenues well into the future.
- The time based strategy may create competitive advantage that carries over into other business.
- Replacing inventory with information improves customer service and can lower costs.

Barriers

- The generous revenues derived from the HomeHelp relationship will require significant change and investment. The very nature of the potential competitive advantage offered by the time based strategy is that it is unique -- no one in the industry is doing it. Therefore, the challenge of figuring out how to implement the strategy effectively rests with the first mover, requiring trial-and-error efforts and investment. Change is almost always difficult to implement.
- The failure experienced with Happy Home & Living plagues future close relationships.
- Management's belief that the "additional cost" of providing service to HomeHelp will be pushed on to other customers.

HomeHelp

Benefits

- Reduced inventories in regional warehouses.
- Improved service from Woodmere that translates into better service delivered to HomeHelp customers in terms of availability, and quality.

Barriers

- The time based strategy will require commitment and investment. The time and resources required to implement such momentous change between two channel partners is substantial.
- Investment in technologies is required upfront and throughout the relationship.

3. Suggestions may include but are not limited to:

- Reduce the role of the distribution centers. Direct shipment from the manufacturing facility would be most effective, reducing the time spent in transit and eliminating the sorting process at the distribution center. This would also reduce Woodmere's inventory holding investment significantly.
- Deliver incomplete orders when necessary rather than holding up the order at the distribution center until complete.
- Include HomeHelp's in-stock figures in data that is transmitted daily. In addition, more frequent data transmission may be worthwhile.
- The purpose of the central information service may be in question though little is said about it. It would be worthwhile to determine the role to transportation as well.
- To achieve competitive advantage is difficult. Once it is achieved, however, it should be fully exploited to benefit the firm. Perhaps Woodmere should develop the time based strategy to serve all customers.

4. There is no clear-cut determination of right and wrong in this question. Students should assume a position on one side of the issue and justify their decisions with well-supported arguments. Discussion should encompass advantages/disadvantages of the proposal with any suggestions for change.

Case 3

Alternative Distribution Strategies

Overview

Sugar Sweets, Inc. finds that it must adjust its distribution strategy to increase market coverage and sales volume without threatening the service levels that customers have come to expect. The traditional channels of distribution for SSI products is undergoing significant change, forcing the candy company to reevaluate its current system. Candy and tobacco jobbers were becoming fewer in number. Those distributors that remained dominated wholesale operations that were not serviced by warehouse club stores. In all, the retail customer was in for a loss in product variety and high service levels, both of which were traditionally offered by the now diminishing jobbers.

To respond to the changing business environment, SSI has determined that a new approach to marketing its products is necessary. In large part, the new approach consists of an expansion of retail targets to include outlets that enjoy high traffic volumes but rarely offer snack products. The new sales sites include dry cleaners, barber/beauty shops, hardware stores, and drinking establishments. The case questions require the student to analyze the costs and benefits associated with the new distribution strategy.

Solutions to Questions

1. From the data in Table 2:

Total number of target retailers $(320,000 + 290,000 + 210,000) = 820,000$

Number of retailers initially contacted $(820,000 \times .20) = 164,000$

Anticipated number of participating retailers:

| | | | |
|------------------|------------------------|---|---------------|
| pre-trial period | $(164,000 \times .30)$ | = | 49,200 |
|------------------|------------------------|---|---------------|

| | | | |
|-------------------|-----------------------|---|---------------|
| post-trial period | $(49,200 \times .55)$ | = | 27,060 |
|-------------------|-----------------------|---|---------------|

2. Based on Table 2 data for the average retailer:

Daily calculations

Expected number of paying customers (100/day x .10) = 10 customers

Projected unit sales per day (10 customers x 1.12 units) = **11.2 units**

Projected sales dollars per day (10 customers x \$1.40) = **\$14.00**

Annual calculations

Expected number of paying customers (10/day x 260 days) = 2,600 customers

Projected units sales per year (11.2 units/day x 260 days) = **2,912 units/year**

Projected sales dollars per year (\$14.00/day x 260 days) = **\$3,640/ year**

3. Based on answers to question 2 and data from Table 3:

Number of large packs necessary for average retailer annually:

2,912 units/year ÷ 180 units/large pack = 16.18 (**16 orders/year**)

Number of small packs necessary for average retailer annually:

2,912 units/year ÷ 92 units/small pack = 31.65 (**32 orders/year**)

4. The following calculations apply for the six-month trial period:

Total initial participants (from question 1) = 49,200

The number of large pack retailers (49,200 x .45) = 22,140

The performance breakdown of the 22,140 large pack retailers:

High performers (22,140 x .40) = 8,856 retailers

Medium performers (22,140 x .20) = 4,428 retailers

Low performers (22,140 x .40) = 8,856 retailers

Total large pack retailers **22,140 retailers**

On the basis of expected orders per year from question 3, average large pack retailers should place 16 orders per year, or 8 over each six-month period. The first order of the trial period is considered the “initial order” and the remaining 7 are called “reorders.”

The number of initial orders from large pack retailers:

| | | |
|--|---|----------------------|
| High performers (8,856 retailers x 1 order) | = | 8,856 orders |
| Medium performers (4,428 retailers x 1 order) | = | 4,428 orders |
| Low performers (8,856 retailers x 1 order) | = | <u>8,856 orders</u> |
| Total number of initial large pack orders | | 22,140 orders |

The number of reorders from large pack retailers:

| | | |
|--|---|-------------------------|
| High performers (8,856 retailers x 7 reorders) | = | 61,992 reorders |
| Medium performers (4,428 retailers x 5 reorders) | = | 22,140 reorders |
| Low performers (8,856 retailers x 3 reorders) | = | <u>26,568 reorders</u> |
| Total number of large pack reorders | | 110,700 reorders |

The number of small pack retailers (49,200 x .55) = 27,060

The performance breakdown of the 27,060 small pack retailers:

| | | |
|-----------------------------------|---|-------------------------|
| High performers (27,060 x .40) | = | 10,824 retailers |
| Medium performers (27,060 x .20) | = | 5,412 retailers |
| Low performers (27,060 x .40) | = | <u>10,824 retailers</u> |
| Total small pack retailers | | 27,060 retailers |

On the basis of expected orders per year from question 3, average small pack retailers should place 32 orders per year, or 16 over each six-month period. The first order of the trial period is considered the “initial order” and the remaining 15 are called “reorders.”

The number of initial orders from small pack retailers:

| | | |
|--|---|----------------------|
| High performers (10,824 retailers x 1 order) | = | 10,824 orders |
| Medium performers (5,412 retailers x 1 order) | = | 5,412 orders |
| Low performers (10,824 retailers x 1 order) | = | <u>10,824 orders</u> |
| Total number of initial small pack orders | | 27,060 orders |

The number of reorders from small pack retailers:

| | | |
|---|---|-------------------------|
| High performers (10,824 retailers x 15 reorders) | = | 162,360 reorders |
| Medium performers (5,412 retailers x 10 reorders) | = | 54,120 reorders |
| Low performers (10,824 retailers x 7 reorders) | = | <u>75,768 reorders</u> |
| Total number of small pack reorders | | 292,248 reorders |