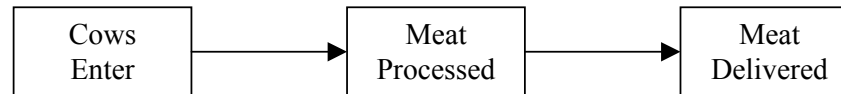




## Practice Case 2 (Butcher Shop)

### Question

A fast food chain recently bought a bovine meat-processing outlet to supply it with fresh hamburgers and other meats. The shop process is: cows enter from one end of the shop, meat gets processed in the middle, and then the meat gets packaged and delivered at the other end.



The manager of the butcher shop however could not decide whether to have the cows walk or run into the meat processing room. Can you help him?

### Recommended Solution

#### High Level Plan of Attack

- The first thing you want to do is to understand how much meat can be processed (the capacity) when the cows walk versus run.
- Then analyze the cost implications of the cows walking versus running.
- Next, calculate the size of the market and demand for the product.
- Finally, match demand with supply.

#### Lay Out Your Thoughts

- This is a market sizing, operation's cost analysis question. Try to lay your plan of attack on paper in a logical sequence of steps to take.



## Dig Deeper: Gather Facts & Make Calculations

### *Shop Capacity*

- Let's assume that only fresh hamburger meat is processed at the shop. Let's also assume that from each cow, you can make 20 hamburgers.
- How many hours per day is the shop open for? *10 hours, 5 days a week.*
- Now, if the cows walk in, 10 cows can be processed in one hour, given current labor.
- This gives us an estimated 2000 hamburgers that can be processed in one day if the cows were to walk (20 hamburgers/cow x 10 cows/hour x 10 hours/day).
- If the cows were to run in, let's assume that 25 cows can be processed in one hour. This gives us 5000 hamburgers per day.

### *Costs*

- Next, we must calculate the costs associated with the two different capacities. Let us assume that labor cost increases proportionally to the increase in processed meats, and overhead increases, but not proportionally due to some sunk costs, for more equipment and other expenses. Here is the breakdown:

	<b>Walk</b>	<b>Run</b>
<b>Overhead</b>	\$5000	\$10,000
<b>Labor</b>	1,000	2,500
<b>Total Cost</b>	6,000	12,500
<b>Burgers/Week</b>	10,000	25,000
<b>Cost per Burger</b>	\$0.60	\$0.50

- This shows that by running, costs drop by 10 cents on each burger.
- *To estimate revenue, we need to calculate the demand from estimating what the market size would be.*

- Let's assume that the fast food chain has 10 outlets, and the meat-processing factory serves all 10. Each outlet serves a vicinity of about 30,000 people. Now, let's also assume that there are about 3 other competitors in each vicinity, leaving it with a market share of about 25% of the customers in each area, for a total of 75,000 potential customers.
- Of those 75,000, about 40% of them fall within the demographic target, leaving 30,000 desired customer.
- Given the trends in healthy foods, out of the 30,000 desired customers, about a third will be allowed by their parents to frequent any one of the establishment on a regular basis - leaving 10,000.
- Of the 10,000 customers, each will frequent the establishment about twice a week on average - 20,000 visits. Out of these visits, about half order a burger over another item on the menu - for a total of 10,000 burgers a week.



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### Key Findings/Recommendations

- Even though it's cheaper to produce more burgers, there's no demand to support it.
- Have the cows walk. This meets demand and ensures fresh hamburgers.