The points mentioned in the last round still hold good. Major observations:

- If your products are not selling well – your company will be in trouble. **Please keeps an eye on the customer buying criteria for each segment.** Please give the customers what they want. Please spend on awareness and accessibility. Sell more and sell with better margins – everything will fall in place.
- New products? Why aren't you launching them? They will help you capture more market share
- Forecasting - huge unsold inventories! Or large stock outs. Forecasting is paramount.
- Financial management needs more attention. Teams are spending huge amounts of plant addition/automation and funding large parts of it with current debt! Do you go and buy a house with a credit card? Also, they're taking on long term debt and retiring some of the same in the same year! Issuing bonds and retiring them early costs money. Remember the capital structure of the firm is a policy decision. It should not keep changing with the weather.
- Greater scope to improve awareness and accessibility.

Some Points Common to all Industries

- Some teams have still got an emergency loan (very few now). But that was highly avoidable. Please pay attention to your cash account. Please cover with enough funds to cater to your worst case scenarios. Remember, emergency loans are the most expensive source of funds in the simulation. You could comfortably have raised those funds through short term borrowing and long term bonds and/or stock issue (and paid much lesser interest expense). Emergency loans depress your stock price significantly, as stock holders question the poor management of the company. Please borrow enough to repay back this emergency loan in the current year. In the finance spreadsheet please ensure that your ending cash balance is between 10-15% of you annual sales. You would want to increase this figure if you forecasts are ambitious. You may want to reduce it if you feel your forecasts are on the dot and you know precisely what your competitors will be doing.
- Please keep an eye on the margins. Some teams have let the margins slip. Make sure you have sufficient margins to cover your costs. You may continue to sell more with these slim margins, but may not turn a profit. Please examine and remedy. Please read the note on margins below.
- Please be long term oriented. It may not be wise to sacrifice long term potential profits for short terms gains. Remember; as the market grows there may be more money to be made in the latter half of the simulation rounds than the former. Therefore.......act accordingly.
- If you want to capture more market share, please launch your arsenal of products faster. If the products are finally going to make money, it makes sense to launch them sooner rather than later. Good to see most teams are doing that. Some are not...
- In Round 3, TQM initiatives have started. Please read the flags on each cell and make investments accordingly - TQM investments can cut material cost,

reduce R&D cycle time, improve worker productivity and increase demand. Please ensure you manage your cash account as you make these investments. While inputting your decisions in the TQM sheet on Capstone, observe the worst case and best case benefits that accrue to you.

Industry and Team Specific Points

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General: Interesting developments in the industry. Low sales for Ferris. You took over the management of the company three years ago when it had a top-line of $100M. Sales have progressively diminished in the last few years. If you are to retain market share, your top line should grow at approximately the rate the market grows.

Low margins for Erie. Churning out a profit with such low contribution margins will be difficult indeed. This was your third year at the helm of affairs of you company. Ferris had bottom line in red and an emergency loan. Both are a perfect indicator of poor business management and bankruptcy. Digby had the highest profits for this round. They lead the industry in terms of cumulative profits. You've had three years to stabilize your companies. Aim for profits now. Wall Street investors are an impatient lot.

Stock Price and Market Cap: **Andrews and Digby** had a rise in stock price of $1/share and $4/share respectively. **Baldwin, Chester, Erie and Ferris** had a fall in stock price of $8/share, $5/share, $0.7/share and $14/share respectively. **Ferris** distributed dividends when their company was in a loss. Is it logical? **Digby** is the most valuable company with a market capitalization of **$177M**.

Please push up your EPS

EPS (profits/shares outstanding) answers the question, "What profits did each share earn?" EPS is a driver of stock price, and stock issues are an important source of growth capital.

The market is growing, and so should profits.

EPS is important for three reasons. First, profits bring new equity into the company. Second, EPS drives stock price, and the company can issue shares to bring in new equity. Third, any new equity can be leveraged with new debt.

An example may help. Suppose the company wants to invest $15 million in new plant and equipment each year for the next three years. If its profits are zero and it issues no stock, the purchases would need to be funded entirely with bonds. But this would drive up interest expense, and worse, eventually the company would reach a ceiling where bond holders would give it no additional debt. The company would stop growing.

In the end, a company's growth is built upon equity. If it has equity, it can get debt, too.

How can companies improve EPS? Improve sales volume while maintaining margins. EPS is closely linked with the Asset Utilization and Competitive Advantage categories.

Sales: Chester, Digby and Erie had a rise in market share of 1.5%, 1.2% and 9% respectively. **Andrews, Baldwin and Ferris had a fall** in market share of 2%, 0.8% and 8.8% respectively. Losing customers in the early years is a bad idea. The attempt should be to take away customers from your competitors. With a falling customer base, all other metrics for company are likely to erode.

Please consider how you AR policy impacts sales and the ramifications:

The accounts receivable policy affects both demand and the balance sheet. Companies express the policy in days. A 30 day policy means that accounts receivable will be 30/365 * Sales.

On the balance sheet, if a company expands A/R policy from 30 days to 60 days, it doubles A/R. In effect it gives a loan to customers, and in the process it incurs the additional expense of carrying that loan. For example, if accounts receivable expanded from $10 million to $20 million, and the company funded the expansion with short term debt at 10%, it would incur an additional $1.0 million in interest expense.

On the other hand, demand would increase by about 5% from $120 million to $126 million, while fixed costs would remain the same. Profits would increase by about $0.8 million after paying the additional $1 million in interest expense. And, of course, the additional $6 million in sales came out of competitors.

But there is a risk. It is trivial for competitors to copy A/R policies, and if that happens, the increase in demand is neutralized while everyone absorbs the additional $1.0 million in interest expense. The question then is, “Will competitors realize we have expanded our credit terms? All of them?”

Beyond 60 days, the incremental cost in interest exceeds the incremental gain in demand.

As companies shorten A/R policy, they effectively reduce the loan they have made to customers. Cash goes up, interest expense falls. However, customers want credit terms. If the company demands cash payment, demand falls to 65% of its potential.

These relationships are easily explored with the company’s Marketing worksheet. As they vary the A/R policy, they should watch the computer’s demand forecast.

Profits: Ferris had bottom line in red. The reasons are simple:

- Low Sales
- Unnecessarily high depreciation due to low plant utilization: why keep such a large idle plant.
- High Interest Expense
- High SG&A compared to sales

Profits are listed on page 1 of the Capstone Courier. Losses are usually the result of insufficient margin caused by a high cost structure and too low prices. Profit can also suffer from excessive expenditures in selling and advertising, heavy interest payments on debt, and losses on liquidation (scrapping) of inventory when retiring a product line.

Contribution Margin: Erie needs to pay attention to their margins.

Contribution margin is what is left over after variable costs. Variable costs include the cost of goods (material and labor) and inventory carrying expense.

The biggest expense is the cost of goods. If the contribution margin is 30%, then out of every sales dollar, $0.70 paid for inventory and $0.30 is available for everything else, including profits.

Fixed costs are those expenses that will be paid regardless of sales. They include promotion, sales budget, R&D, admin, and interest expenses.

As the contribution margin falls below 30%, it becomes increasingly difficult to cover fixed costs.

How can a company improve its contribution margin? Guard price and attack material and labor expenses.

Emergency Loans: Baldwin, Erie and Ferris have emergency loans. Please stay away from emergency loans. The reasons for your cash flow crisis are easy to see:

Baldwin – For a cash outflow of $64.5M (plant improvements + dividends + retirement of current debt), you raised $39M through debt and equity. Remember assets = liabilities plus equity. You increased assets (larger plant) but did not fund it adequately with debt and equity. Where will the cash come from? In the next round, remember to raise funds from current debt to repay this emergency loan. See note in red below:

Erie - The reasons for your emergency loan were large cash outflows arising from:

- You spent (wrote out cheques) for $6.9M for plant. Assets increased but you did not fund it adequately with debt and equity. Where will the cash come from?
- You have large unsold inventories of over $36M. That is causing a cash flow crisis by blocking cash. This also imposed 12% (almost $4.3M as inventory carrying costs) and depressed profits
- You repurchased your common stock worth $1M
- Previous years' long term and current debt of $8.9M which was repaid in the current year.

All this caused a huge outflow (and blocking) of cash that you did not have:
Therefore, in the next round:

- Make realistic sales forecasts and do not overproduce inventory
- Reduce your production to cater to the large unsold inventory.
- Keep doing RnD on your products (remember the older inventory gets a free ride to the new specs)
- Sell surplus unused plant capacity
- Raise funds from long term and current debt to repay this emergency loan.

Ferris – For a cash outflow of $50.7M (plant improvements + dividends + purchase of stock + retirement of long term and current debt), you raised $25M through debt and equity. Remember assets = liabilities plus equity. You increased assets (larger plant) but did not fund it adequately with debt and equity. Where will the cash come from? In the next round, remember to raise funds from stock issues, long term and current debt to repay this emergency loan. See note in red below:

This emergency loan is current debt. It will automatically get plugged into "current debt due this year". Borrow maximum from long and short term debt and raise funds through stock issues and sale of surplus plant to **ensure your 31 Dec closing cash (bottom left row on Finance sheet of Capstone) balance is a healthy figure (attempt 1-2 months of sales).**

Please remember: emergency loan is current debt: you have to repay it in the next year. The amount of cash going out for the repayment of the emergency loan will auto-populate in the current debt column on the finance sheet of Capstone.

Plant Size and Utilization: Ferris has not even used the complete first shift capacity of their plants. **Ferris,** for example could have produced the same quantity of products using 11% of their current first shift capacity. This would have reduced their depreciation by 89%.

Asset Turnover: Ferris needs to work their assets harder as they have the asset turnover ratio below one. Let us try and ensure that every dollar of asset on our balance sheet produces at least one dollar of sales.

Forecasting and Inventory: The inventory levels of Erie are high. Large stock outs are also seen in some segments for **all teams**. This is equally damaging. Teams should ensure judicious sales forecasts: produce such quantities that they are able to fulfill the demand for their products without having high unsold inventory. **IMP: – Please don't go by computer forecasts: make your own**. Please read the note on forecasting in the online Capstone Guide.

Segment Wise Product Analysis: How are your products faring?

- **Traditional Segment:** Baker leads the industry. Cake has low market share in this segment. Able is overpriced (outside the price range thereby diminishing demand). Remember, price has an importance of 23% in this segment). Baker and Cake need improvement in their position (performance and size) in the segment. Except Able, all products need improvement in accessibility. This has become a seller's market. Teams should strategize accordingly.
- **Low End Segment:** Bead leads the industry. Feat has low market share in this segment. Ebb and Feat have inappropriate age (too low) for the segment (Age has an importance of 24% in this segment). Except Feat, all products need improvement in accessibility. This has become a seller's market. Teams should strategize accordingly.
- **High End Segment:** Exxx leads the industry. Duck and Echo have low market share in this segment. All products need improvement in their position (performance and size) in the segment (Ideal position has an importance of 43% in the segment). Duck and Echo have inappropriate age (too high) for the segment (Age has an importance of 29% in this segment). Adam, Bid, Cid and Duck need improvement in accessibility.
- **Performance Segment:** Bold leads the industry. Foam has low market share in this segment. Edge has low MTBF. Dot and Foam have too high MTBF. (MTBF has an importance of 43% in the segment). All products need improvement in their position (performance and size) in the segment (Ideal Position has an importance of 29% in the segment). Bold, Dot, Aft and Edge are overpriced (outside the price range). Aft,

Edge and Foam have inappropriate age (too high) for the segment. Dot and Edge need increased levels of awareness. All products need improvement in accessibility.

- **Size Segment:** Egg leads the industry. Fume has low market share in this segment. All products need improvement in their position (performance and size) in the segment (Ideal Position has an importance of 43% in the segment). Dune and Fume have inappropriate age (too high) for the segment (Age has an importance of 29% in the segment). Agape is overpriced (outside the price range). Egg and Buddy need increased levels of awareness. Except Agape, all products need improvement in accessibility.

Financial Management: **Andrews, Chester and Digby** are not too keen on taking on leverage. Leverage as explained in the previous round can improve your ROE to a great extent. Please make growth investments: if you are, you will need both equity and fresh debt.

A thought on Debt: Some teams often strive to eliminate debt and bring leverage down. They pay off any current debt and retire all bonds.

In short, they manage the company as they manage their personal finances. This thinking is wrong, especially in the early rounds of simulation. Consider this example: Without debt, your company's assets will not be as large. Conceivably, a competitor with identical equity could have assets worth two to three times as much as yours.

In a business, debt buys income producing assets. If you can borrow money at 10% and make 20%, you should borrow all you can get.

The relevant questions are:

- **Can we find investments that generate a higher return than the cost of the funding**
- **What is the risk that our investments will not produce the expected return?**

HR Module: **Chester** does not seem too keen to improve the productivity of their employees? As an old saying goes “you pay peanuts, you get monkeys”. Would you rather have trained professionals or monkeys?