

Round 2: Overview

Please look at all aspects of your team's results in the context of your industry. **Try and assign all possible causalities for the results you achieved in each functional area.** All the information you need is available in the Capstone Courier. That is the best learning (and preparation for subsequent rounds). Please use Excel to help you organize and analyse the wealth of competitor and industry information and to run scenarios.

In addition to other areas, please deliberate on your proclivity to excessive caution or excessive greed -**please navigate a sound course between excessive greed and excessive caution.** Both are equally deleterious to your company's health. Please take well considered logical and realistic decisions in the business environment you operate (for which all information is given in the Capstone Courier).

Some points common to most teams

1. **Your Sales (your top-line) are paramount.** If you are selling well and are maintaining/increasing market share (i.e. have \$131M or more in sales in Round 2) you are doing okay. If your sales are poor you (your company) are in trouble. Analyse the causes for poor sales. Essentially, you are not giving the customers what they want (the customer buying criteria) and/or the competition is doing it better. Hence, look the buying criteria for the concerned segment and make changes accordingly:

- Positioning of sensors (i.e. performance and size) – go for the ideal spots or as close to them as possible.
- Age of sensor
- MTBF
- Price
- Awareness (promotion) and accessibility (sales budgets)
- Remember the 4Ps that you learnt in marketing. You have to address all the Ps for making better sales.

2. If the **asset turnover** (The amount of sales generated for every dollar's worth of assets.) is low, take note. Your sales are too low to justify the assets you hold. Dig deeper to analyse the causes. You could be holding very large plant and equipment. Or, maybe your fixed assets are small enough/ adequate, but your current assets (inventory, AR, cash are very high). Examine, analyse, remedy....

3. **Hold your margins** – if your contribution margin for a product is less than ~ 30%, you'll find it difficult to make money on that product. A look at the Courier front page will make this immediately evident. Remember you've got SGA and other period costs to cover. It's good to run scenarios in Capstone. For example,

- For a given price, at what volume do I break even (remember break even analysis!)? And, does my product justify such a volume given its 4Ps. If not, work needs to be done in that area(s).

- For a give volume of sales, what should I price the product to **break even**? What should I price the product so as to attain ___% profit, etc. And more importantly, will my product actually sell the volumes given above with its associated marketing mix?
- Enter you figures on Capstone.xls for the scenarios you want to run – see the effect on your proforma income statement and your proforma ratios. **Tinker with as many variables as you like and see the effect.** Capstone provides you a great opportunity to build and analyse scenarios. Build you competence in identifying which levers effect which metric and how they are inter-related. This provides very strong learning indeed and will pay you rich dividends personally and professionally (not to mention you'd do better on Capstone). This is a great ERP at your fingertips.

4. **Emergency Loans:** You know the common causes-

- Over optimistic sales forecast: You thought you'd sell, but wound up with too much inventory in you warehouse. Cash is king. The unsold inventory is hurting you. Your suppliers, creditors, employees, etc want to be paid – you can't tell them "We'll pay you when we sell and get the cash". Too much unexpected inventory could outstrip your inflows, exhaust your starting cash and force you to beg for money to keep your company afloat.
- You didn't fund Plant Capacity Purchases/ Automation CapEx adequately. If you spend on plant make sure you fund it through debt/equity.
- Remember: while forecasting, do a best and worst case scenario. Have enough cash to just cover your worst case scenario (i.e when sales are the lowest possible). Check the bottom most row in the finance screen on Capstone for "Cash position on 31 Dec" of the present year. Make sure it is healthy.

5. **Plant Automation:** Very few of you have invested here. Higher automation means lower labour costs and improved margins. But remember – it cost money and delays your R&D projects. Therefore, plants for *which* products are more amenable for automation than others?

6. **Plant Size:** Some of you are holding plant capacity that would be able to produce more than what you would need three to four years from now! The avoidable depreciation and interest expense is hurting your bottom line and pulling down your ROA and ROE.

7. **New Product Development:** Very few of you have introduced new products. It is an *investment*. In later years, more products, translate into greater market share and better overall margins (remember, they share the same accessibility network). Would Maruti have the same market share if it had only one/two cars in the small car segment, instead of the seven or eight that it has?

8. **Dividends:** I would think, it is too early to be paying dividends; however, it's your company. Your shareholders may be happy, but will ask the question: "Do they not need the money to grow in these early years and give us greater returns in future? Have they run out of growth options?"

Make big profits. The share price will take care of itself. Giving even a dollar a share as dividend now is not only difficult to fund in the initial years, it also deprives you of investments in growth options which would easily allow you to pay \$7 a share in later years. Which will improve stock price more?

9. You're running a for profit company. Remember core economics? Extract the consumer surplus. Why drop prices where customers are prepared to pay more?

Round 2: Industry and Team Specific Points

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General: Decent round. Variance between teams has grown in the very second year of business. Run your businesses carefully; losing customers and profits weakens you and strengthens your competitors. The gap widens faster than one anticipates. Once your competitors have strengthened, the going gets tougher for you.

Andrews, Chester and Digby made losses this year. Low sales for **Digby**. The reasons for your low sales are given below in the sales paragraph. The top-line for **Baldwin and Digby** has shown good growth in the last financial year. Emergency loans were seen for **Andrews, Chester and Digby**. Please read the paragraph on emergency loans below.

In the initial years you will be making some hard decisions to set right the company you have just taken over. **You will be making growth investments. Profits are likely to suffer in the initial years. That's perfectly understandable.**

Always remember, **sell more, sell profitably and keep a check on cash. More or less everything will fall in place.**

Stock Price and Market Cap: **Erie** had a rise in stock price of \$16/share. **Andrews, Baldwin, Chester and Digby** had a fall in stock price of \$2/share, \$2/share, \$40/share and \$13/share respectively. **Chester's** stock price took a massive tumble of \$40 caused by losses and emergency loans. **Erie** is the most valuable company with a market capitalization of **\$107M**.

Sales: **Baldwin, Digby and Erie** had a rise in market share of 7.8%, 8.6% and 1.4% respectively. **Andrews, Chester and Ferris had a fall** in market share of 12%, 1.8% and 4% respectively.

Each 1% market share in this round was worth almost \$10M. In the real world, heads would roll when there are large losses of market share. Your sales should have been in the region of \$131 M if you were retaining market share.

Low sales for Digby. This was caused by:

- Poor product specifications (performance and size) for Duck, Dot and Dune; look at the ideal spot on the perceptual map. Look at your product specifications. If you do not offer the customers the specifications they desire, sales will suffer.
- High price /pricing outside the price range for Duck and Dune.
- Low customers awareness levels due to low promo budgets for Dell, Duck, Dot and Dune.
- Poor distribution reach and accessibility caused by low sales budget for all products.

Please pay more attention to the 4P's of marketing: improve your sales.

Except **Erie**, all human teams have **introduced new products in the market**. Each team can launch up to three new products. More products help you capture more market share.

Profits: Andrews, Chester and Digby had bottom lines in red. The reasons for your lower profits are easy to isolate

- High unnecessary depreciation of plant and machinery due to low plant usage for Andrews. Why keep a plant that only gathers dust.
- High Unsold Inventory and the attendant carrying cost.
- Low Margins

Profits are important: Let's not forget why we are running the company.

Return on Sales: Return on Sales (Profit/Sales) answers the question, "How much of every sales dollar did we keep as profit?"

Between 0% and 4%, while the company is at least making a profit, it is not bringing in sufficient new equity to fund growth. The industry is growing at about 15% per year. The industry consumes about 15% more capacity each year, which arrives in the form of plant expansions and new products. Therefore, as the simulation begins, an average company would add about \$12 million in new plant each year. If half that or \$6 million was funded with bonds, an average company would need about \$6 million in new equity. Therefore, if the company does not have the profits, it must either issue \$6 million in new stock, or \$12 million in bonds, or not grow to keep up with demand. Worse, if it has no profits, its stock price falls, making it difficult to raise equity through stock issues.

This ignores investments in automation, which also require a funding mix of equity and debt.

In the opening round of Capstone® companies have an excess of idle assets, and that can convert idle assets into productive ones. Therefore, do not worry too much if the company's profits are low. But after year 3, expect that idle asset cushion to be gone. Profits become critical because those companies with profits can grow, and those without cannot.

What if profits are negative? The company is destroying equity. Its stock price has plummeted, making it more difficult to raise equity. All of the problems described above are now accelerated. In short, trouble.

How can companies improve ROS? Here are a few questions to pose:

1. Can you raise prices?
2. Can you reduce your labor costs? Your material costs?
3. Can you forecast sales better and thereby reduce your inventory carrying expenses?
4. Have you pushed your promotion or sales budgets into diminishing returns?
5. Can you sell idle plant to reduce depreciation? Alternatively, can you convert idle plant into some other productive asset, like automation or new products?
6. Is your leverage too high, resulting in high interest expenses.

Contribution Margin: Andrews, Baldwin, Chester and Digby need to improve their contribution margin. Aim for contribution margins above 30%. Remember you've got fixed and period costs to cover. To jog your memory:

Contribution margin is defined as:

$$\frac{\text{Sales} - (\text{Direct Labor} + \text{Direct Materials} + \text{Inventory Carry})}{\text{Sales}}$$

Sales

It is reported on Page 1 of the Capstone Courier as an aggregate average of each team's product portfolio. A good benchmark for contribution margin is 30%. A product-by-product margin computation is available on the Income Statement portion of your company's annual reports.

Always watch your margins. It's difficult to maintain long-term success with contribution margins below 30%. There is downward pressure on price across all market segments (50 cents per year). Investments in cost reduction strategies (automation/capacity expansion) should be considered, as should price increases. Also check your MTBF against the Customer Buying Criteria on segment analysis pages of the simulation reports. You may be offering customers more reliability than they care about.

Emergency Loans: Andrews, Chester and Digby have emergency loans. Your company will get no respect from Wall Street if you cannot manage your cash. The reasons are –

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

- You spent (wrote out cheques) for \$5M 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 \$86M. That is causing a cash flow crisis by blocking cash. This also imposed 12% (almost \$10.3M as inventory carrying costs) and depressed profits
- Previous years' emergency loan of \$61.8M 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.**

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

- You spent (wrote out cheques) for \$36.6M 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 \$156M. That is causing a cash flow crisis by blocking cash. This also imposed 12% (almost \$18.7M as inventory carrying costs) and depressed profits

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.**

Digby – For a cash outflow of \$22.3M (plant improvements + dividends), you raised \$8.1M 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? You also have high unsold inventory worth \$43.6M which is blocking cash. In the next year, please make realistic forecasts and do not overproduce inventory. 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. Please err on the side of caution when it comes to managing cash. Get rid of your emergency loan ASAP. A team with an emergency loan gets no respect: period. Naturally, it impacts your stock prices. Plus it hinders your operational flexibility and business options.

Plant Size and Utilization: **Andrews** needs improvement in plant utilization. Remember, you can produce up to twice your first shift capacity. Idle plants only bleed you.

Asset Turnover: **Andrews, Chester and Digby need to work their assets harder.** They have an asset turnover of less than one. **A high asset turnover indicates that sales per unit of asset is high. Remember, the purpose of your assets was to generate sales (and hopefully profitable sales).**

Forecasting and Inventory: **Andrews, Chester and Digby have high unsold inventory levels.** Please make sales forecasts more deliberately and produce only the quantity you are certain can sell. In the next round you would have the present unsold inventory to sell also. Hence, set production such that you cater to this unsold inventory. Do not overproduce. **Producing more does not mean you will sell more!**

Segment Wise Product Analysis: How are your products faring?

- **Traditional Segment:** **Baker** leads the industry. **Cake** has low market share in this segment. **Cake** has inappropriate age (too high) for the segment (age has an importance of 47% in this segment). **Cake** needs improvement in its position (performance and size) in the segment. **Able** needs increased levels of awareness.

(It has awareness of only 46% and hence 54% of the market does not know about your product). **Except Baker, all products** need improvement in accessibility.

- **Low End Segment:** **Bead** leads the industry. **Dell** has low market share in this segment. **Acre and Dell** need increased levels of awareness. **Ebb, Cedar, Acre and Dell** need improvement in accessibility.
- **High End Segment:** **Cid** leads the industry. **Duck** has low market share in this segment. **Except Bruuh, all products** need improvement in their position (performance and size) in the segment (Ideal position has an importance of 43% in the segment). **Echo and Adam** have inappropriate age (too high) for the segment (Age has an importance of 29% in this segment). **Bruuh and Duck** are overpriced (outside the price range). **Duck** needs increased levels of awareness. **Cid, Echo, Adam and Duck** need improvement in accessibility.
- **Performance Segment:** **Bold** leads the industry. **Foam** has low market share in this segment. **Aft and Coat** have low MTBF (MTBF has an importance of 43% in the segment). **Dot, Coat and Aft** need improvement in their position (performance and size) in the segment (Ideal Position has an importance of 29% in the segment). **Aft** has inappropriate age (too high) for the segment. **Edge and Dot** need improvement in accessibility.
- **Size Segment:** **Buddy** leads the industry. **Dune** has low market share in this segment. **Except Egg, all products** need improvement in their position (performance and size) in the segment (Ideal Position has an importance of 43% in the segment). **Cure, Agape and Egg** have inappropriate age (too high) for the segment (Age has an importance of 29% in the segment). **Dune** is overpriced (outside the price range). **Cure, Egg and Dune** need increased levels of awareness. **Cure, Agape, Egg and Dune** need improvement in accessibility.

Financial Management: **Erie** is low on leverage. ROA times the leverage is ROE.

HR Module: **Except Digby, teams do not seem to want to improve the productivity of their employees.** The productivity and labor costs carry an inverse relation. If the productivity of the employees is 1.1 the labor cost would reduce to 90.9%. To improve on the productivity teams need to invest in training and recruitment of the employees. Please carry out a cost benefit analysis and invest accordingly.
