Case Interview Marathon Workshop
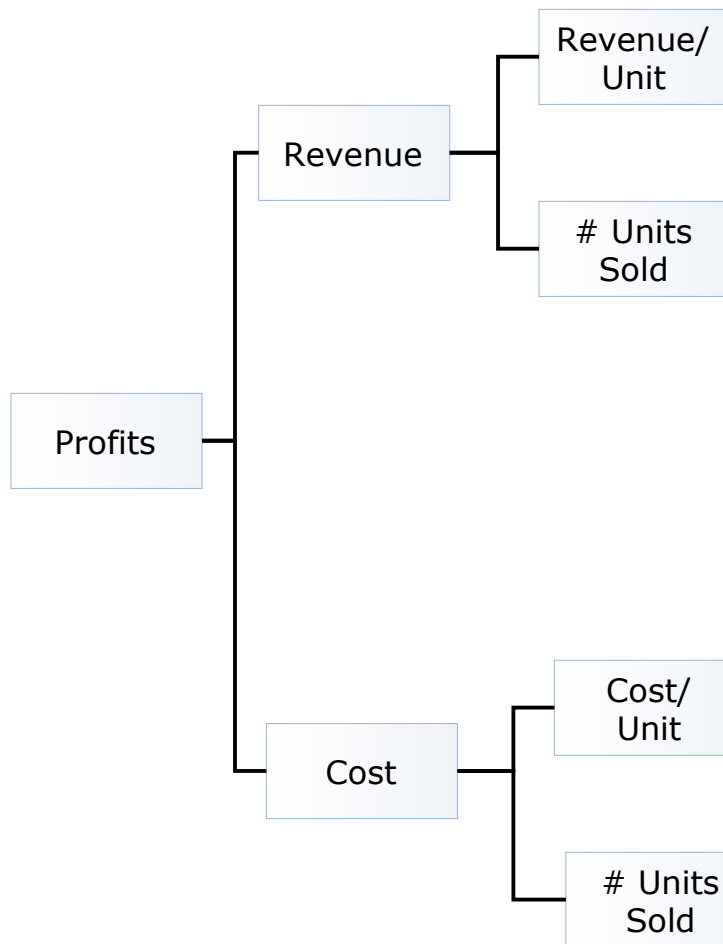
Victor Cheng's
Case Interview Core Frameworks v1.0

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PROFITABILITY FRAMEWORK

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                                    ┌──────────────┐
                                    │  Revenue/    │
                                    │   Unit       │
                                    └──────────────┘
                   ┌──────────────┐
                   │   Revenue    │
                   └──────────────┘
                                    ┌──────────────┐
                                    │  # Units     │
                                    │   Sold       │
                                    └──────────────┘
  ┌──────────────┐
  │   Profits    │
  └──────────────┘
                                    ┌──────────────┐
                                    │  Fixed Cost  │
                                    └──────────────┘
                   ┌──────────────┐
                   │   Cost/      │
                   │   Unit       │
                   └──────────────┘
                                    ┌──────────────┐
                                    │  Variable    │
                                    │   Cost       │
                                    └──────────────┘
  ┌──────────────┐
  │    Cost      │
  └──────────────┘
                   ┌──────────────┐
                   │  # Units     │
                   │   Sold       │
                   └──────────────┘
```

For the problem branch (e.g., Revenue/Unit or # Units Sold)
1) SEGMENT the number, break it up into its component parts, compare to historical metrics to find where the shift is coming from
2) ISOLATE the key driver causing bulk of problem
3) EXPLORE possible resolutions

Possible Segments to get data for, isolate & explore:
* By product / product line
* By distribution channel
* By region
* By customer type (new/old, big/small)
* By industry vertical

Once you know mathematically what's causing the problem, you need to understand WHY the number has declined in the context of the marketplace. This may be a "compound framework" problem requiring you to use a general market analysis framework. If so, most often you will want to start with the customer (demand side) analysis and potentially may have to use the entire framework.

For problem branch (e.g, fixed or variable cost)
SEGMENT into its component parts
* Segment cost by logical components
* Segment costs by value chain

Value Chain Example:

Identify fixed costs in each of the following:
Raw Materials -> Factory -> **Distribution** ->Customers

Compare to historical. Find the problem component.

Keep "drilling down" by finding the problem segment, and drill down on THAT segment until you ISOLATE what's mathematically causing the majority of the problem (aka. Find the LEVERAGE point)

Tips:
1) Keep drilling down until you isolate the problem
2) If you realize a branch (or sub-branch) is NOT the problem
   come up a level and work the remaining branches
3) The name of the game is PROBLEM ISOLATION
4) When "units sold" decline, it's useful to compare the company's numbers
   to its competitors to determine if it's an industry-wide or company-specific issue

BUSINESS SITUATION FRAMEWORK

New Market Entry, New Product, New Business, How to Grow, Strategy, Turnaround, Company Position Assessment

Customer

Who is the customer?
- identify segments (segment size, growth rate, % of total market)
- compare current year metrics to historical metrics (look for trends)
What does each customer segment want? - identify keys needs
What price is each segment willing to pay? - determine price points and price elasticity/sensitivity
Distribution channel preference for each segment
Customer concentration and power* (does one customer control all the demand, the " Wal-Mart" effect)

Product

- **Nature of product** (think out loud about the product, it's benefits, why someone would buy it)
- **Commodity good or easily differentiable goods** (could company increase differentiation)
- Identify **complimentary goods** (can we piggy back off growth in compliments or near compliments?)
- Identify **substitutes*** (are we vulnerable to indirect competitors namely substitutes?)
- Determine **product's lifecycle** (new vs. almost obsolete)
- Packaging (optional) - what's bundled, included (ex. Razor vs. razor blades, with w/o service contract... can change in packaging make product more likely to meet needs of specific customer segments.)

Company

- **Capabilities and expertise**
- **Distribution channels** used
- **Cost structure** (mainly fixed vs. variable - is it better to have higher fixed cost with lower variable, or vice versa. High fixed cost = barrier to entry.... compare to industry, often insightful)
- Investment cost (optional: only if case involves an investment decision)
- **Intangibles** (e.g., brands, brand loyalty)
- **Financial situation**
- Organizational structure (optional: e.g., is team organization in conflict with how customers want to do business. Ex: We're organized by product line, but customers want one point of contact across all product lines)

Competition

- **Competitor Concentration* & Structure** (monopoly, oligopoly, competitive, market share concetration)
- Competitor behaviors (Target customer segments, products, pricing strategy, distribution strategy, brand loyalty)
- Best practices (are they doing things we're not?)
- **Barriers to entry*** (do we need to worry any new entrants to market)?
- **Supplier concentration*** (optional: ex: Microsoft or Intel in PC Market... use full 5 forces if this is a likely issue)
- Industry regulatory environment
- Life-cycle of industry

 * From Porter's Five Forces: An excellent framework that I've incorporated into this one. I don't use five forces separately for no other reason than habit/preference (though I do use the concepts). If you're not familiar with five forces, it's worth reading up on it.

MERGERS & ACQUISITIONS "FIT" FRAMEWORK

Use this framework when Company A is looking to acquire or merge with Company B, AND the two companies are different.
This framework determines if there's a good fit. If Company A & B are nearly identical, use a capacity expansion framework instead.

"Fit Framework" - General Idea: Use "Core Business Situation Framework" and run it for Company A, Company B, and Company A+B

This framework does not answer the question IF it's a good idea to merge/acquire. It assumes you already know that it IS a good idea and the question is whether or not this particular target company is good fit. To determine IF merging/acquiring is a good idea, use Capacity Expansion Framework instead

	Customers	Products	Company	Competition
Company A				
Company B				
Company A+B				

- Identify synergy in new company
- Identify opportunities for one-way or mutual exploitation (Classic good "fit" = Company A has huge sales force buy lousy products,
- Company B has minimal salesforce but killer products. Potential sources of synergy: customers, products, distribution, resources, expertise, access to markets, physical assets, unique capabilities, overlapping cost structures)
- Hint: Every time there's a synergy, that's one vote in the "good fit" column

CAPACITY CHANGE FRAMEWORK

ABC Company is considering adding capacity (e.g., building a new factory), reducing capacity or acquiring a DIRECT competitor. This is a good framework when understanding industry capacity is the ONLY factor. If there are "fit" issues, use the Mergers & Acquisitions "Fit Framework" instead.
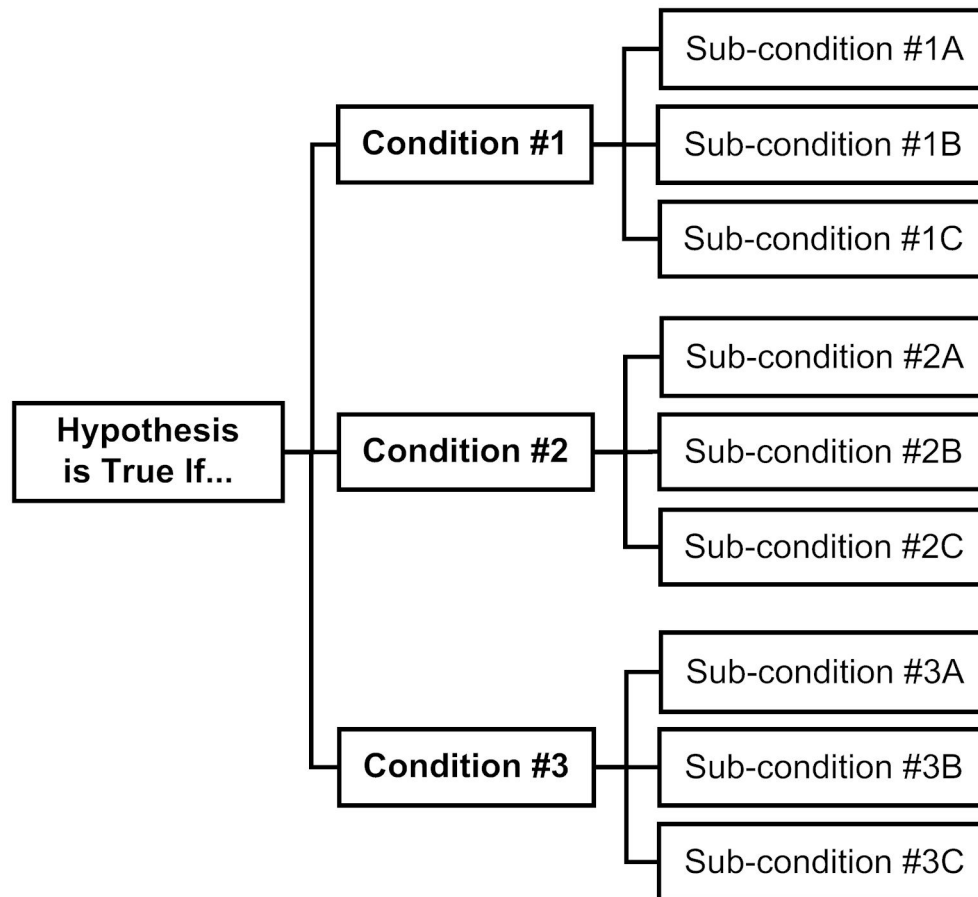
Demand	**Supply**	**Cost of Expansion**
Determine growth in overall market (How sustainable?) Determine Growth in firm's market share (How sustainable?) Segment sources of demand * Determine each segments share of total demand * Identify trends in demand by segment Focus on the largest sources of demand and the largest growth rates... use these few "leverage" points help you understand where the majority of demand is heading	Determine industry supply Segment industry supply by market / market segment Identify effect of increases in supply on prices Possible Benefits Introduce technology innovations with capacity expansion Increase productivity -> Lower marginal costs heading	Real costs (can the firm afford it) Opportunity cost - payback period - break even point Alternatives - outsource - lease - sub-contract

- For many if not most capacity related cases, figure out if this is a conceptual case or a numerical case. If conceptual (20% of time), use this framework. **If numerical (e.g, Company A can produce 20 million units at $4, Company B 10 million units at $3.50), then you should graph out supply curves and overlay them with demand curves. (Tip: practice drawing demand curves from data quickly)**
- The typical issue is if we add/reduce capacity, what will happen to the market clearing price... once we know the market clearing price what impact does that have on profitability... and given that impact should the client add/reduce capacity.

CASE INTERVIEW REMINDERS

- Compare current year metrics to historical to   **FIND THE TREND**

- Compare "company/client" metrics (revenues, gross margins, unit sales, pricing, changes in segment mix, product mix) to competitors' metrics to determine is it a **COMPANY-SPECIFIC or INDUSTRY-WIDE**   problem since you solve these problems very differently

- Totals and Averages are very misleading.... Always   **SEGMENT YOUR METRICS**
  Example: Total sales are flat, but Segment A represents 20% of sales, and Segment B represents 80%... Segment A grew 100% this year, Segment B declined by 25%... BUT total sales were FLAT. If you don't segment, you   **MISS THE WHOLE POINT** .

- **ALWAYS, ALWAYS SEGMENT...**   Whenever you want to segment numbers but aren't sure which way, just say, "It seems like getting a more detailed breakdown of revenues would be helpful, do we have any more detailed data on revenues. Often the interview will volunteer the segmentation pattern"

- Oh yeah, did I mention... always, always   **SEGMENT YOUR NUMBERS** !

- Segment revenues (by product, channel, customer type, region) (total revenues, revenues per unit)
- Segment costs (by fixed vs variable, costs within each segment of value chain) (total costs, cost per unit)
- Segment customers (by demographics, needs, purchasing patterns, price point, other)
- Segment competitors (by channel, region, product, customer segment)

- **Think Out Loud** (Usually in response to receiving some data and realizing your hypothesis is right or wrong)

- **Ignore** your previous knowledge and   only use data from the case

CASE INTERVIEW SECRETS BOOK ISSUE TREE DIAGRAM

Hypothesis is True If...

Condition #1
- Sub-condition #1A
- Sub-condition #1B
- Sub-condition #1C

Condition #2
- Sub-condition #2A
- Sub-condition #2B
- Sub-condition #2C

Condition #3
- Sub-condition #3A
- Sub-condition #3B
- Sub-condition #3C

CASE INTERVIEW SECRETS BOOK PROFITABILITY FRAMEWORK

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                                        ┌─────────────────┐
                                        │   Price/Unit    │
                      ┌───────────┐     └─────────────────┘
                      │  Revenue  │
                      └───────────┘     ┌─────────────────┐
                                        │  # Units Sold   │
   ┌──────────┐                         └─────────────────┘
   │  Profit  │
   └──────────┘                                           ┌──────────────────┐
                                                          │   Fixed Cost/    │
                                                          │      Unit        │
                                        ┌─────────────┐   └──────────────────┘
                                        │  Cost/Unit  │
                      ┌───────────┐     └─────────────┘   ┌──────────────────┐
                      │   Cost    │                       │  Variable Cost/  │
                      └───────────┘                       │      Unit        │
                                        ┌─────────────┐   └──────────────────┘
                                        │ # Units Sold│
                                        └─────────────┘
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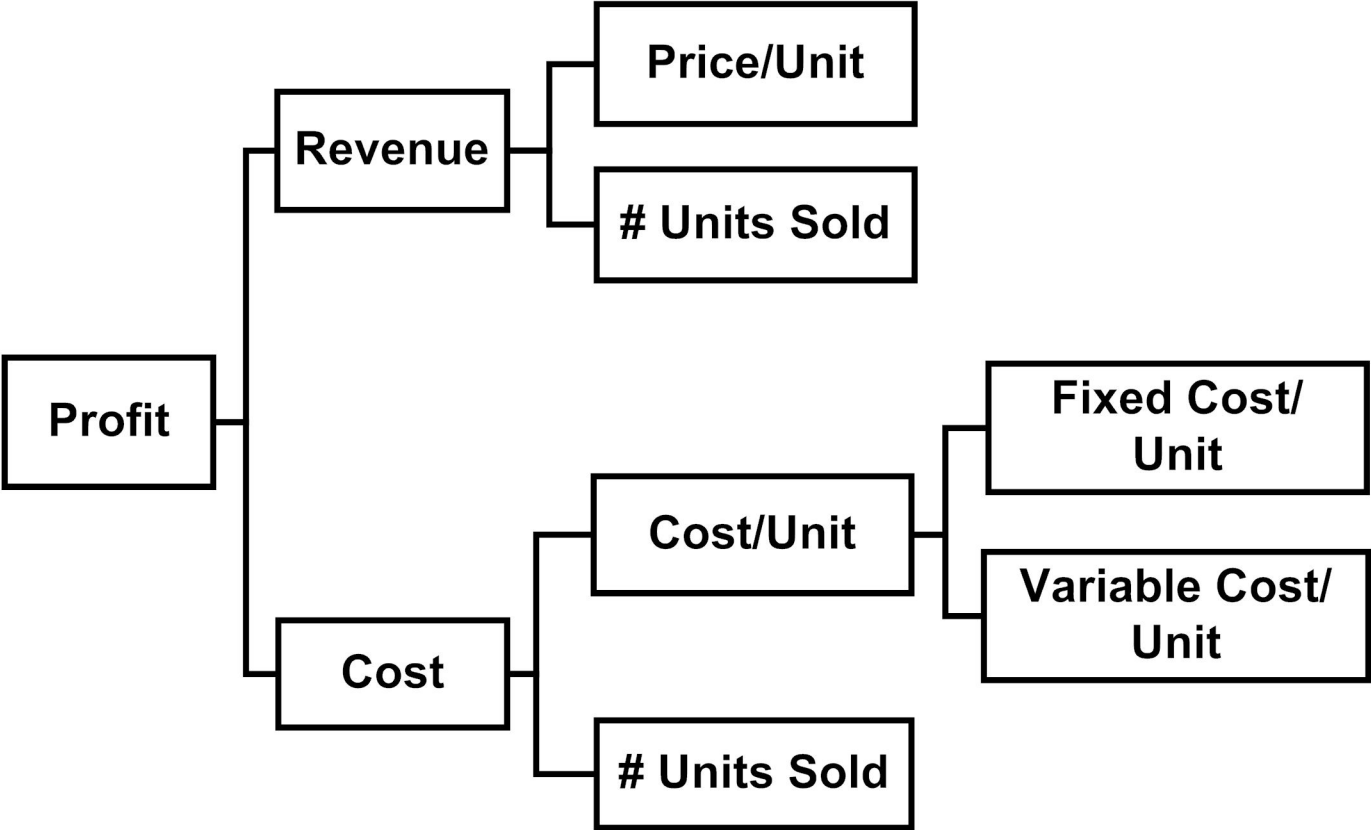
CASE INTERVIEW SECRETS BOOK BUSINESS SITUATION FRAMEWORK

Hypothesis is True If...

Customer
- **Who is the customer?**
  - Identify segments (segment size, growth rate, percentage of market)
  - Compare current-year metrics to historical metrics (look for trends)
- **What does each customer segment want?** (identify key needs)
- **Price sensitivity** of each segment
- **Distribution channel preference by segment**
- **Customer concentration and power**

Product
- **Nature of product** (what it does, how it's used, why it's useful)
- **Commodity or differentiable good**
- **Identify complementary goods**
- **Identify substitutes** (indirect competitors? don't buy anything?)
- Product's life cycle (new vs. obsolete)
- Packaging

Company
- **Capabilities and expertise**
- **Distribution channels**
- Cost structure (fixed vs. variable)
- Investment cost (optional: only if case involves an investment decision)
- Intangibles
- Financial situation
- Organizational structure

Competition
- **Competitor market share concentration**
- **Competitor behaviors** (target segment, products, pricing, distribution)
- **Best practices** (are they doing things we're not?)
- **Barriers to entry** (do we need to worry about any new entrants to market?)
- Supplier concentration
- Regulatory environment