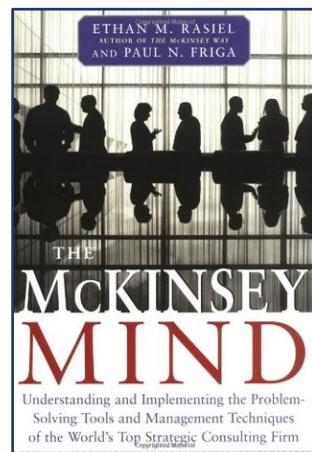
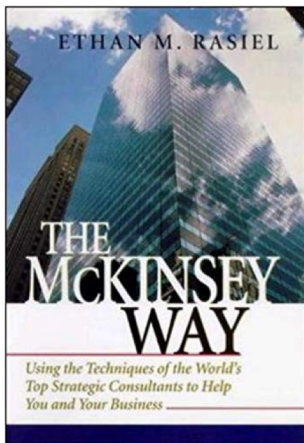




Handout 6

Problem-Solving and Management Techniques from McKinsey Way and Mind

Source: Ethan M. Rasiel (1999), *The McKinsey Way: Using the Techniques of the World's Top Strategic Consultants to Help You and Your Business*, McGraw Hill.

Source: Ethan M. Rasiel and Paul N. Friga (2002), *The McKinsey Mind: Understanding and Implementing the Problem-Solving Tools and Management Techniques of the World's top Strategic Consulting Firm*, , McGraw Hill.



Strategic Thinker

“McKinsey is to management what Cartier is to Jewels...The legendary strategic think-tank has trained many of world’s greatest management thinkers and business leaders.”

“You must not fear the facts. Hunt for them, use them, but don’t fear them.”

- 1. How to Think about Business**
- 2. How to Solve Problems**
- 3. How to Sell Solutions to Client**

1. How to Think about Business

A. Building the solution

Facts are friendly — Problem solving at Firm: begins with facts. Facts are important for 2 reasons —

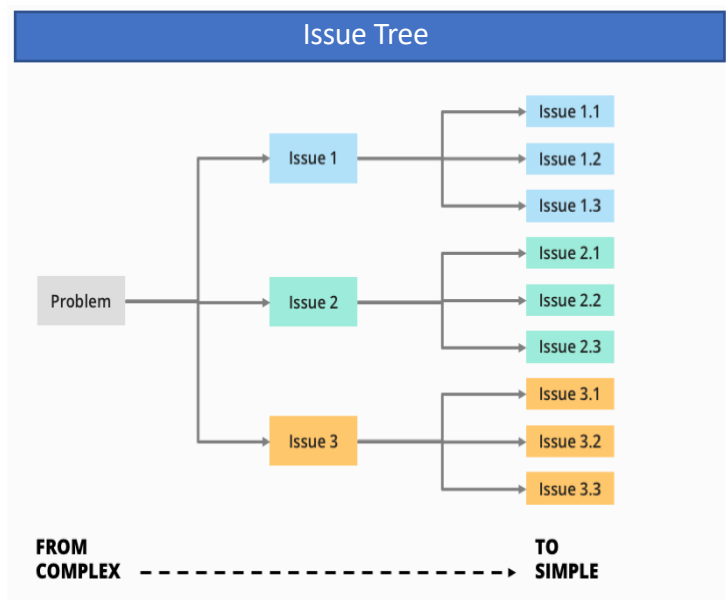
- a) compensate for lack of gut instinct
- b) bridge credibility gap

MECE (pronounced as 'mee-cee') — Once the facts are gathered, a structure is applied to thinking with **MECE (Mutually Exclusive, Collectively Exhaustive)** and it is the sine qua non of problem solving process at firm. So what it means is, when you are thinking a list of issues that make up a problem, it must answer 2 pertinent questions —

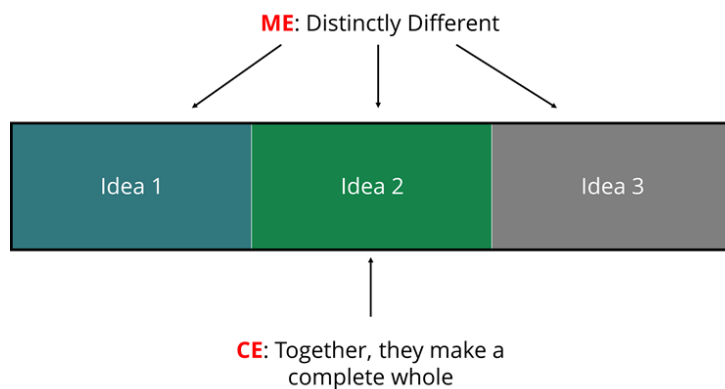
- is each issue listed, distinct and not overlap or coincide with any other [ME]
- are all the issues come under the problem stated and there are no further issues [CE]

MECE framework is used to solve Client's issues: Define an Initial Hypothesis (IH) with issues identified, further branch out sub-issues to form an issue tree and finally test the Hypothesis.

- First, they enable consultants to breakdown complex problems into simpler ones. The problems McKinsey solves are often complex ones. Breaking issues down into smaller pieces which are simpler to solve makes consultants' lives easier.
- Second, issue trees are great to keep focus. Sub-issues are logically connected to the overall issue. When consultants work on a sub-issue they therefore know it will contribute to solving the overall problem. Without an issue tree it is easy to get lost in the details and to lose track of whether an activity is helping to solve the overall problem or not.
- Third, issue trees are also a great communication tool. They are easy for clients and teams to understand because they are visual. If structured correctly they also ensure that no potential root-cause of an issue is missed as part of the analysis. This typically reassures clients in real life.



Mutually Exclusive, Collectively Exhaustive



- One of the most foundational ideas in consulting problem solving is “MECE.” If you have been around current or former strategy consultants, you’ve probably heard someone say this, typically pronounced “me-see.”
- MECE is an acronym for the phrase **M**utually **E**xclusive, **C**ollectively **E**xhaustive. Put simply, it is a principle that will help you sharpen your thinking and simplify complex ideas into something that can be easily understood.

A Simple Way To Think About MECE From A Trip To The Grocery Store

GROCERY LIST

- | | |
|--------------------------------------|-------------------------------------|
| ☐ Banana | ☐ Grapes |
| ☐ Bread | ☐ Bagel |
| ☐ Muffin | ☐ Popsicles |
| ☐ Ice cream | ☐ Strawberry |
| ☐ Fish Sticks | |

Now close your eyes and try to remember as many of the words as possible.
Really...close your eyes. Come on, just try it!

Using MECE as a guide, we take the list and try to create mutually exclusive groups. We might end up with the following three groups:

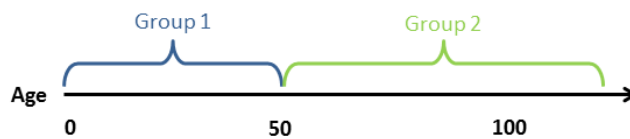
- **Bakery Items:** Bread, Muffin, Bagel
- **Frozen Food:** Popsicles, Ice Cream, Fish Sticks
- **Fresh Fruit:** Strawberry, Banana, Grapes

Within the context of our list, the three groups we identified are distinctly different and separate. They are mutually exclusive. Additionally, our grouping covers all nine items in the original list, so the grouping is “collectively exhaustive” as well. This grouping is called synthesis – taking detailed information and summarizing it into a higher level category.

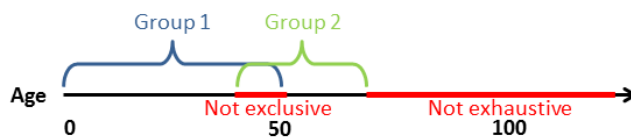
Learn the Difference Between MECE and non-MECE

An example for a MECE breakdown is dividing the population into subsets of age:

- A group of people below 50 years and another group of 50 years and above is MECE. No person can be in both groups - mutually exclusive - but every person is in either one of them – collectively exhaustive

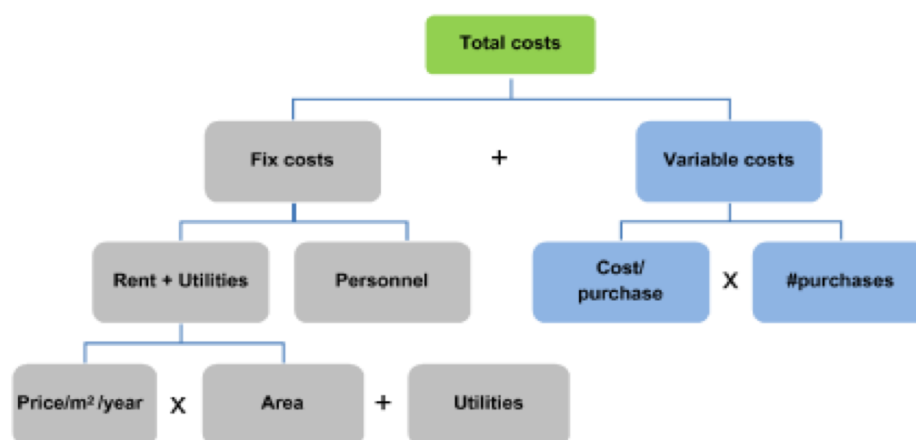


- A group of people below 50 years and another group with people from 40 to 70 years is not MECE, as people from 40 to 50 years belong to both groups - they are not mutually exclusive – and people above 70 are in neither one of the groups – they are not collectively exhaustive.



MECE in Profitability Cases to Split Costs and Revenue in An issue Tree

McKinsey interviewers along with other firms will especially look whether you are able to structure information in a MECE format. During a case interview, MECE is also helpful for calculation. Many well-known frameworks, such as Cost-Benefit Analysis and Porter's Five Forces are all designed with the MECE principle in mind. Another example below shows how costs are typically broken down in a MECE way. Subsequently, an issue tree-like format is used to break down the estimation into its basic components for easier approximation of data.



Putting It In Practice

Here are some scenarios where you can use MECE:

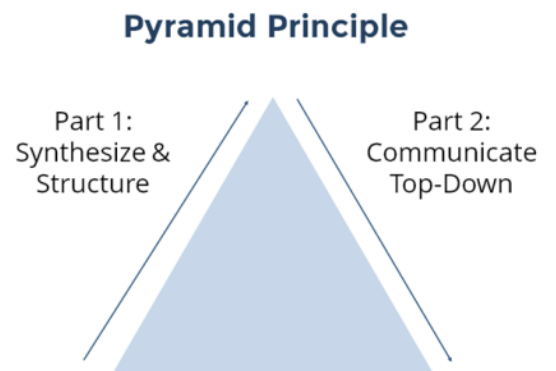
1. Simplifying a long list of data or information into a smaller set of ideas
2. Breaking down a problem statement into a MECE set of hypotheses
3. Breaking down a list of information into groups
4. Simplifying an article with many different sections into a smaller number of high-level themes
5. Using the pyramid principle to structure an argument

The pyramid principle was invented by Barbara Minto at McKinsey. She based her thinking around ideas ranging from Aristotle's *Rhetoric* and other sources on logic throughout history. Her pyramid principle works really well with the consulting problem solving process as it is a natural partner for hypothesis-driven thinking.

The best way to understand the pyramid principle is in two parts:

Part 1: Bottom-up synthesis & sensemaking

Part 2: Communicate top-down

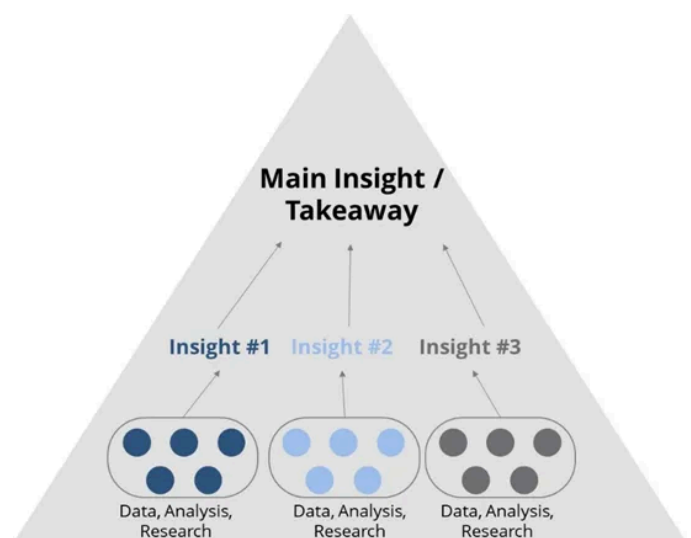


The pyramid has three levels:

Lower Level: This is the information, analysis, survey results and research

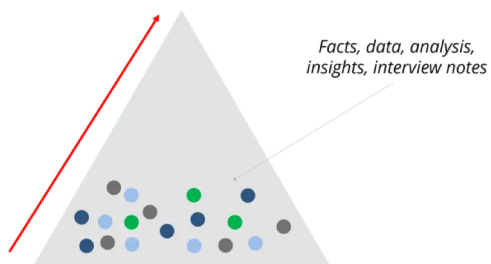
Middle Level: These are the synthesized arguments or takeaways of a group of arguments

Highest Level: The main overall takeaway from everything you've analyzed.

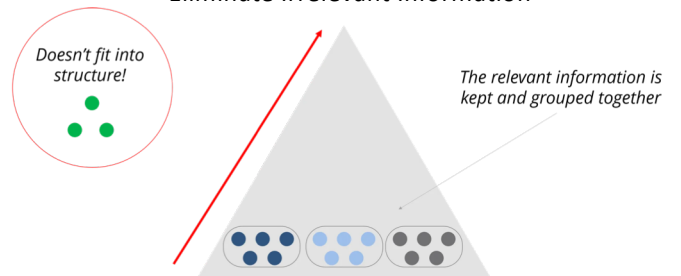


Insight definition takes work; it's a skill that requires creativity, persistence and deep thinking to craft. The most powerful insights come from rigor and serious analysis to translate large amounts of data into concise and compelling findings.

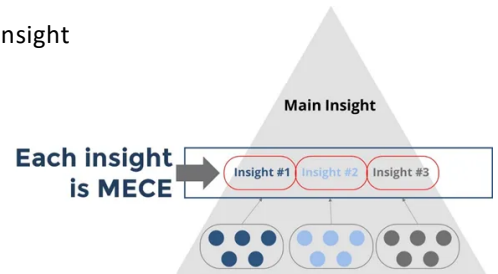
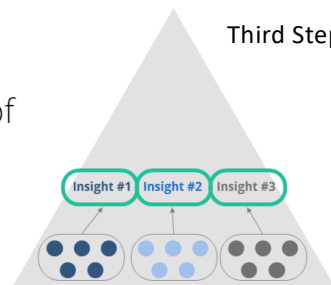
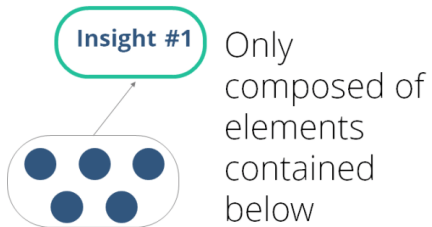
First Step: Start Gathering Information



Second Step: Grouping & Eliminate Irrelevant Information



Third Step: Identify the Insight



Business Example: Using MECE & Synthesis Together

- Hourly wages are increasing faster than average
- Managerial salaries are increasing faster than average
- Increased attrition is driving up administrative costs
- The biggest customer has decreased its orders by 40%
- The second biggest customer decreased its orders by 30%
- The number of customers has decreased by 20%



You might take this information and summarize it in the following two MECE buckets

- 1. Labor Challenges:** The company is facing increasing wages and attrition
Hourly wages are increasing faster than average
Managerial salaries are increasing faster than average
Increased attrition is driving up administrative costs
- 2. Sales Challenges:** The company is facing decreasing sales across the company
The biggest customer has decreased its orders by 40%
The second biggest customer decreased its orders by 30%
The number of customers has decreased by 20%



B. Developing an approach

McKinsey-ites have “*no-nonsensical*” mental models when it comes to approaching business problems—

- the problem is not always the problem
- don't cookie cut solutions to clients
- don't reinvent the wheel
- make sure solution fits the client
- some problems you just can't solve..solve them anyway

C. 80/20 & Other Rules live by

80/20 — *is all about data*. The members of the firm have always been quite impressed by its power as a problem-solving rule of thumb, for instance insights like: 80% of sales come from 20% of workforce; 20% of secretary's job will consume 80% of her time. Thus, it always gave a jump-start in solving the client's problem.

- **Focus on the key drivers** — means drilling down to the core of problem, rather than picking the whole problem piece by piece, layer by layer. It saves time and effort. It save one from boiling the ocean.
- **The Elevator Test** — know your solution(or product or business) so thoroughly that you can explain it clearly and precisely to your client (or customer or investor) in *30 seconds*.
- If you can do that, then you understand what you're doing well enough to sell your business.
- **Look at Big Picture** — every now and then, take a *mental step back from whatever you're doing*. Ask yourself some basic questions: How does what you're doing solve the problem? How does it advance your thinking? Is it the most important thing you could be doing right now? If it's not helping, *why are we doing it?*
- **Don't accept "I have no idea"** — people always have an idea if you probe just a bit. Ask a few pointed questions — you'll be amazed at what they know. Combine that with some educated guessing, and you can be well along the road to the solution.



2. How to Solve Problems

A. Doing Research

- At the start of a McKinsey-ite's career, most of the time is gathering data, whether from one of the Firm's libraries, from McKinsey's many databases, or from the Internet. Gathering, filtering, and analyzing is the skill exercised most by new associates.
- A set of tips that the Firm advocates to its members —
- Start with annual reports
- Look for outliers
- Look for best practice

B. Conducting Interviews

Be Prepared: Write an interview guide — When you go into an interview, be prepared. You may have only 30 minutes with a person whom you may never see again. Know what you're going to ask.

- You must think on 2 levels when constructing an interview guide,
- what are the questions to which you need answers?
- what are you trying to achieve?

When conducting Interviews, Listen and guide — when you are picking people's brains, ask questions and then let them do the talking. Most people like to talk, especially if you let them know you're interested in what they're saying. Keep the interview on track by breaking in when necessary.

Don't leave the interviewee naked — Remember that, for many people being interviewed about problems in their job or business can be unnerving. You have a responsibility to be sensitive to their fears. It's not only the right thing to do; it makes good business sense too.

Always write a 'thank-you' note — When you get back to your office after interviewing someone take the time to write a thank-you letter. It's polite and professional, and could pay you back in unexpected ways. Sometimes, a little politeness goes a long way.

C. Brainstorming

Think of brainstorming as playing with Rubik's cube. *Each fact is a face on one of the cubes.* Turn the faces this way and that, and you'll come up with *the* answer, or at least *an* answer

"The most important ingredient for a brainstorming session is a clean slate."

Proper Prior Preparation — The cardinal rule of brainstorming is that you cannot do it successfully in a vacuum. Before you go into that meeting, you have to know something about the problem you'll be working on.

Don't just stride into the meeting expecting to wow everyone with your brilliance.

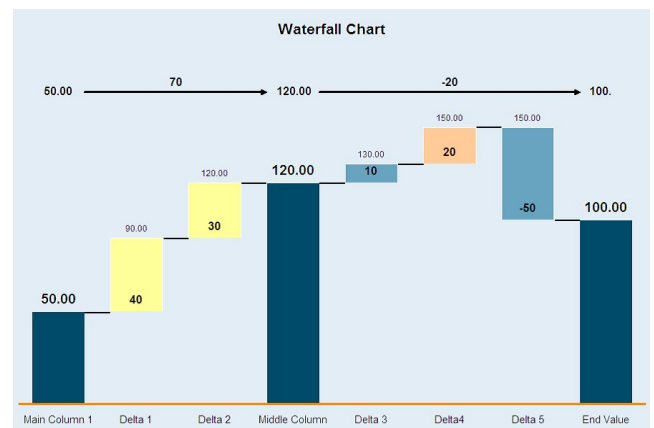
In a white Room — when you get into the room, bring your facts you know, but find new ways of looking at them.

Few "rules of the road" for successful brainstorming,

- there are no bad ideas
- there are no dumb questions
- be prepared to kill your babies
- know when to say when
- get it down on paper

B. Displaying data with charts

- McKinsey advocates strong usage of *chart* (primary means of communication with Clients) for getting the message across, **but not as an art project**.
- “The simple the things are, the easier they are to understand.”
- Back in the late 80’s, before the presentation software became main stream, they printed out charts and conveyed **one message per chart**, which still is the norm except that power point and other similar software have replaced physical chart. Interestingly, each chart will have a “lead” (akin to title) to convey the purpose and intent behind the chart.
- However, the noteworthy mention is the usage of waterfall charts— a versatile way to convey information concisely, which the McKinsey quite popularized.



C. Managing Internal Communication

The Firm strongly advocates to avoid mushroom management: keep the information flowing, both bottom up and top down. Information is to your team what gasoline is to a car's engine, if you choke off the flow, you'll stall.

The Firm's basic methods of internal communication are —

- **Message:** A miniature presentation which has its structure — *brevity* (conciseness & crispness), *thoroughness* (contains that everything audience needs) & *structure* (makes it apparent to audience).
- **Meeting:** Keys to success is that everyone attends the meeting, an agenda with minimum items and a leader who goes over briskly on the agenda
- **Walking around:** Casual chats and random encounters at corridors/water cooler etc lead to meaningful insights. Therefore, *never underestimate the value of a random fact.*
- **Always look over your shoulders** — McKinsey-ites take extra caution when it comes to working on a plane, sending messages over a fax, phone etc, after all one doesn't know as to who could be sitting next or receiving at the other end

D. Working with Clients

“Client First!”

Keep Client on your side & engage with them — Get the client team on your side, make sure they want to help you. They have to remember, if their mission fails, McKinsey mission fails and vice versa.

Dealing with the ‘liability’ Client — There are two types of liability clients — merely useless and actively hostile; work around these spies and saboteurs. At best, make use of their talent where you can and keep sensitive information out of their hands when possible. Sometimes, we can polish the rough diamonds.

Get Buy-in throughout organisation — Treat all audience with respect and they will respond positively most of the time. Tailor your presentation to each audience from the board on down, to get a buy-in throughout the employee spectrum.