



Decision Making

Presented by:
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- Introduction
- Types of decision
- Decision conditions
- Importance of decision making
- Decision making models
- When to use each model
- Link to business (practical steps)
- Decision Support System



Introduction

- We all need to build our knowledge capacity about decision making and problem solving
- This discussion will help us to know how to apply the knowledge that help to make right decision
- The decision is either for solving a Problem (undesired situation) or for taking an Opportunities (desired situation)
- In organization we made :
 - ✓ Strategic decision
 - ✓ Organizational
 - ✓ Operational





“Decision-making involves the selection of a course of action from among two or more possible alternatives in order to arrive at a solution for a given problem”

Robert L. Trewatha; M. Gene Newport
Management : Functions and Behavior

Decision making is skill, tools and process



Once you have learnt
it you can use it
repeatedly



It help you
make decision and
find a solution



It involves taking a
number of steps

Types of Decision

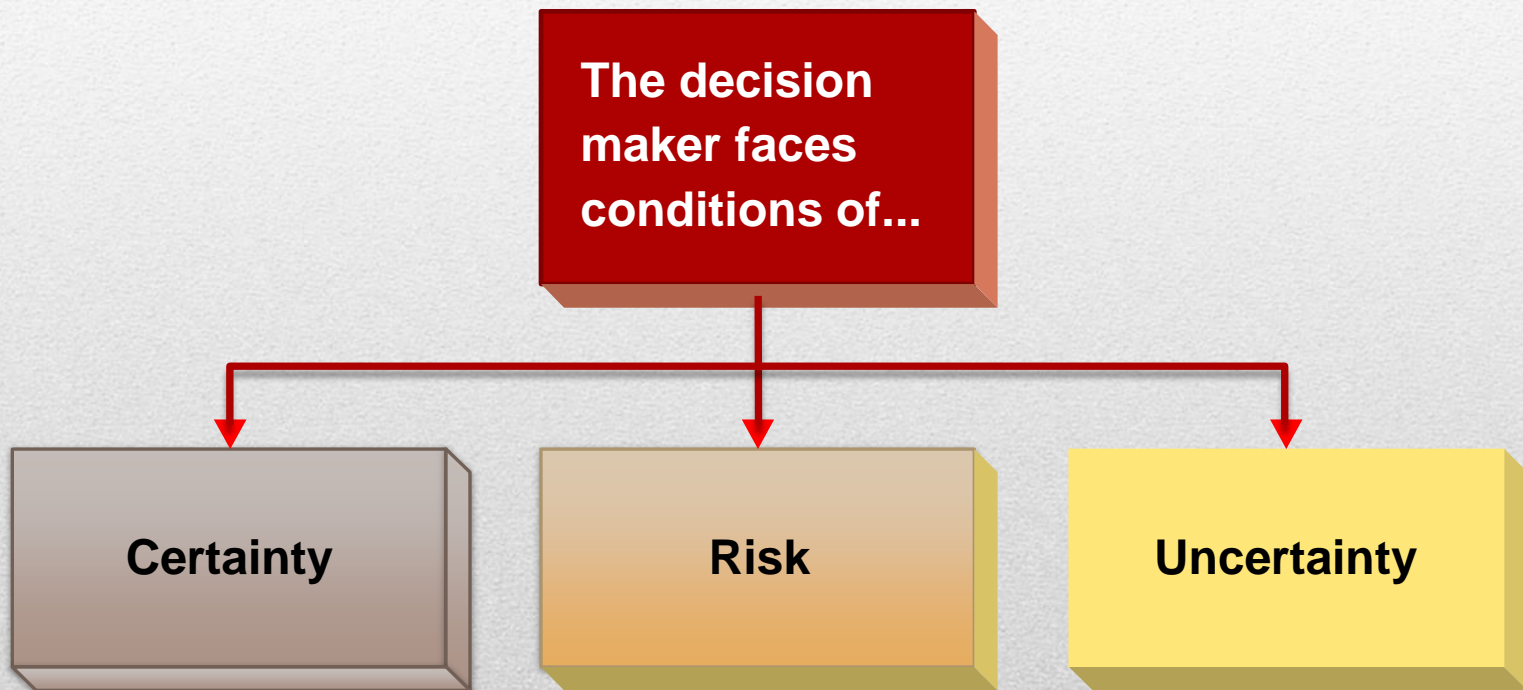
Programmed – buy stationary

- ✓ People made decision many time before
- ✓ They are rules or guide lines to follow

Non programmed – change to new supplier

- ✓ Decision will made according to information and situation
 - ✓ No specific procedure has to be followed for taking these decisions
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Decision Conditions



Certain

- A state of certainty exists only when the decision maker knows:
 - ✓ available alternatives
 - ✓ consequences of decision
- Decisions made under certainty is
 - ✓ Assumed to be accurate decision
 - ✓ Often routine decision

Who will Conduct training ?
to whom I am giving this task ?

Risk

- A state of risk exists when decision maker is
 - ✓ aware of all the alternatives
 - ✓ but is unaware of their consequences and outcomes .
- Information limitation

Info available with the decision maker does not provide answers to the overall questions regarding the outcome of the decision)

e.g. travel to Saudi
Buy system
Out source IT services

Uncertain

- There is no awareness of **all** the alternatives or even outcomes for the known alternatives.
- We need to make certain assumptions about the situation in order to provide a reasonable framework for decision making.
- Creativity , intuition, experience always play major roles in making decision.

e.g. invest in business

Is it important to know the type and condition of decision?



Yes , because

- ❖ **This will tell us who suppose to make decision**
- ❖ **What will be the consequences of that decision**

Importance of Decision Making

- ✓ Growing and take opportunities.
- ✓ Solving problem and face challenges.
- ✓ Better utilization of resources.
- ✓ Increase efficiency and reduce cost.
- ✓ Enhance professional development.
- ✓ Accomplish task faster .
- ✓ Delegation will be possible .



Lack of making a right decision

In spite of this importance and the existence of many processes / approaches developed for making a decision , still we see lack of making right decision (**Gap**)

Reasons :

- Failure to recognize the problem and need for solution
 - Lack of knowledge about decision making approaches and models
 - Lack of applying this knowledge correctly – link to business
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Decision Making Models

Rational Model

Administrative / Bounded rational

Intuitive model

Three-Component Model of Creativity

Rational Model

- Assumes managers are rational and logical
 - (Manager will obtain complete information, eliminate uncertainty, evaluate everything rationally and decide)
- Manager end up with decision that best serves the interest of organization within specified constraints
- Decisions follow steps rational decision-making model

E.g. Buy new device

What to do if the decision did not work?

DISCUSSION

- Try another alternative
- Avail enough time, may be alternative has not given enough time
- Repeat decision making process and emphasize on identifying problem step



Administrative / Bounded Rational Model

Because the human mind cannot formulate and solve complex problems with full rationality - we bounded rationality

- ✓ Identify the problem
- ✓ Begin to search for criteria (common criteria)
- ✓ Begin to search for alternatives (We identify choices that are easy to find and highly visible)
- ✓ Reviewing alternatives until we identify one that is “good enough” e.g. buy device, employee staff , assign trainer

* Take first acceptable / satisfactory one —rather than an optimal one.

e.g. employ staff , assign staff for task

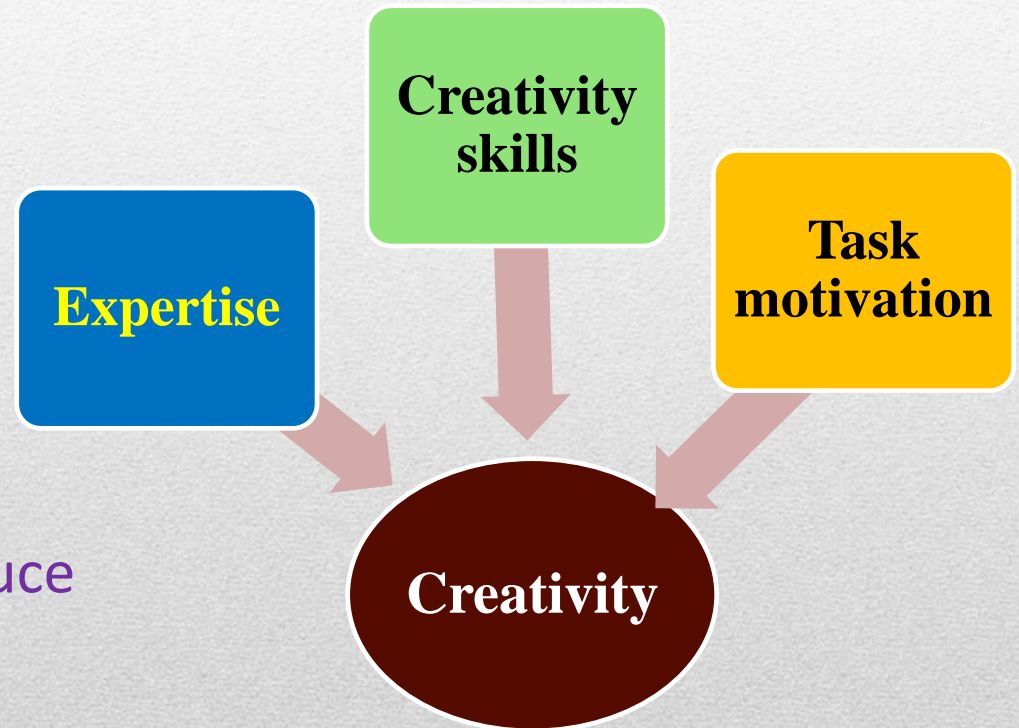
Intuitive Model

- There is an inner knowing, intuition, or some kind of sense about right thing to do
- While intuition is not following rational steps , it isn't necessarily wrong.
- Intuition decision is highly complex and the form of reasoning is based on years of experience and learning
- Valuable when a high level of ambiguity exists

E,g. Decision to import in crises ,

Three-Component Model of Creativity model

The proposition that individual creativity requires :
expertise, creative thinking skills, and task motivation.



Creativity The ability to produce novel and useful ideas

Most people have useful creative potential, we just need to learn to unleash it.

Creativity steps

Problem identification

Defining problem , what the needs for decision

Immersion

Decision maker thinks about the problem consciously and gathers information

Incubation

sets the problem aside and does not think about it for a while. At this time, the brain is actually working on the problem unconsciously

Illumination

when the solution to the problem becomes apparent to the person

Verification and application

Decision maker consciously verifies the feasibility of the solution and implements the decision

Decision Making Model

Use This Model When:

Rational

- Information on alternatives can be gathered and quantified.
- The decision is important.
- You are trying to maximize your outcome.

Bounded Rationality

- The minimum criteria are clear.
- You do not have or you are not willing to invest much time to making the decision.
- You are not trying to maximize your outcome.

Intuitive

- There is time pressure and analysis paralysis would be costly.
- You have experience with the problem.

Creative

- Solutions to the problem are not clear.
 - New solutions need to be generated.
 - You have time to immerse yourself in the issues.
-

Practical Decision Making Steps – link to practice



1



Recognize the need for decision

Think of the scope and dimension of the decision

- > Problem / Opportunity
 - > Routine or complex decision
 - > Programmed or not programmed
 - > Decision condition : certain, uncertain, risk
 - > Type : Strategic decision, Organizational , Operational
 - > Potential impact of the decision
 - > what will be directly affected?
(staff , People, stakeholder, service, operation)
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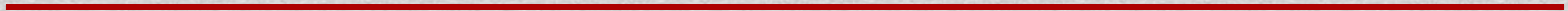
Frame the problem accurately

You need to understand and analyze the problem ,
describe and define it clearly



Define

- ✓ Collect relevant information
- ✓ Clarify background issues
- ✓ What are the constraints (time, cost and performance)



Cont.

Ask yourself

- ✓ What evidence prove it is really a problem worthy of attention?
- ✓ What are the causes of this problem?
- ✓ What are the effect of this problem ?
- ✓ What happen if you do not address this problem?
- ✓ Is the immediate decision is required ?



4

Determine who will be involved in decision making process

- > The one has the experience to contribute in decision
 - > The one participates in implementation
 - > The one controls the resources necessary for implementation
 - > All accountable for its success or failure
 - > Management need to be consulted
 - > Colleagues need to be consulted
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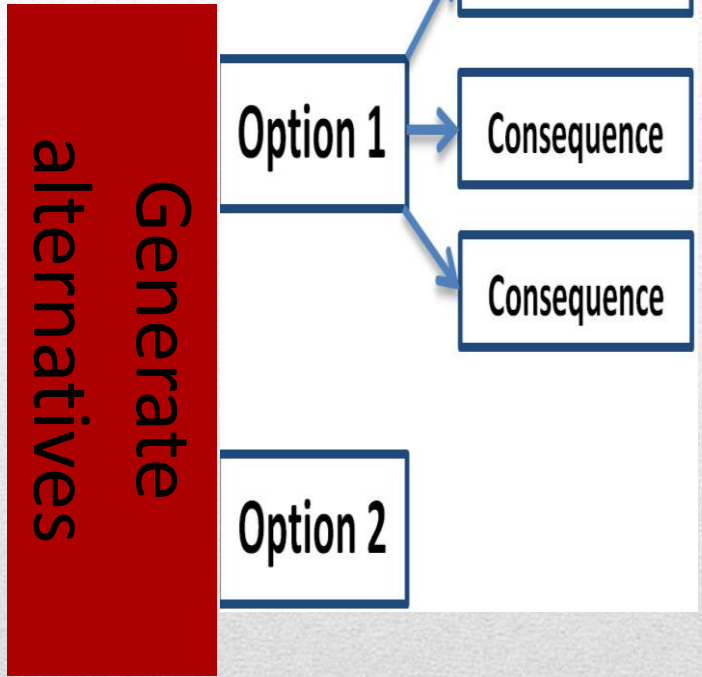
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Generate Alternatives

- Establish Criteria and weigh decision criteria
- Employ decision making tools that fit with situation
- Look to all source of evidence or information



Cont.



Tips

- Use the decision making tools
- Engage partner if required
- Encourage team members to step out of their traditional
- Ask probing questions
- Consider different viewpoint
- Do not kill ideas
- Consider consequences

6

Evaluate and Select among alternatives

- Determine advantage and disadvantages of alternative
- Consider Ethical side ,Humanity side and Culture
- Consider feasibility , satisfactory and consequences affordable



What are the factors we must consider when evaluate and select alternative ?

DISCUSSION

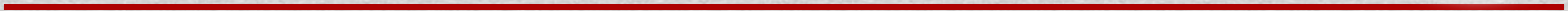
- **Feasibility** : financially possible, legally possible , meets the needs
 - **Satisfactory**: it satisfy situation
 - **It's consequences affordable** : impact and consequence are manageable
 - **Ethical side**
 - **Humanity side**
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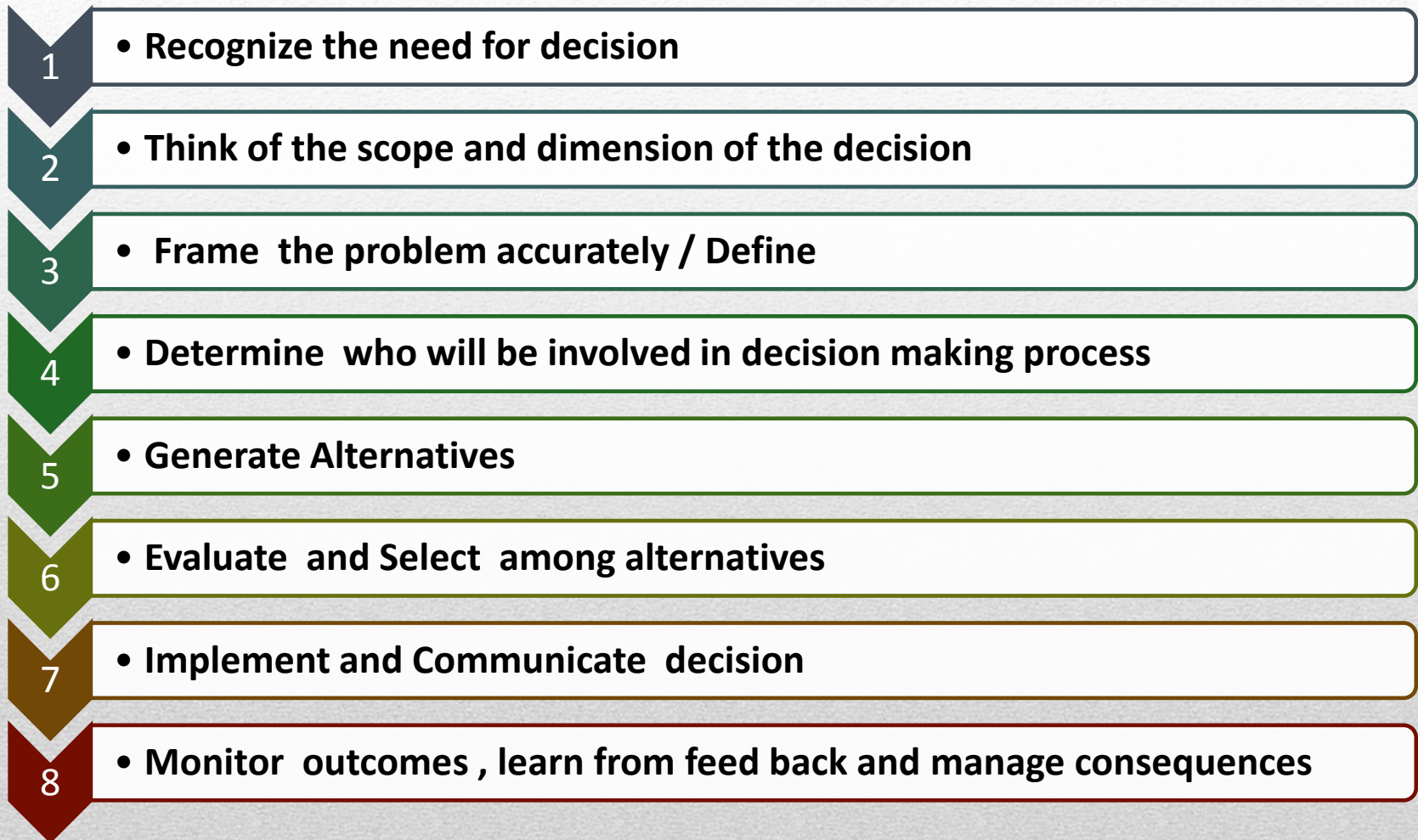
Implement and Communicate decision



Monitor outcomes, learn from feed back and manage consequences



Practical Decision Making Steps



Good Decision

Human decision making performance is subject to:

- Best available evidence/Information (active research)
- Critical and analytical thinking (cognitive)
- Experience



Source of evidence/Information

Scientific evidence – finding from published research.

Organizational evidence base – facts and figures gathered from the organization.

Experiential evidence – professional experience and judgement of practitioners.

Stakeholder evidence - the values and concern of who may be affected by the decision.

Individual & Group decision making

Pros and Cons



DISCUSSION

Individual Decision Making

Group Decision Making

Pros

Faster than
group decision

Cons

Fewer ideas ,
constrain by
individual
knowledge

Pros

Diversity of ideas

Cons

Takes long time

Accountability is
easier to
determine

Identifying the best
individual is
challenge

Greater
commitment to
decision

Dominant by
group one or two
leader

If the decision under my space and authority , do I need to consult senior management about it ?



Yes ,

specially when the **decision is critical**

i.e. has major impact to business and its hard to manage or control consequence

Advice : if you are expecting a decision to be made in a meeting

Go prepare

Team member role in decision making ?



- Work to clear uncertainty (Gather the information)
 - Commit to the decision
 - Implemented in your work area
 - Communicate it
 - Feed back about the outcome
-

Advantages of involving employees in decision making

- **Benefit from different experience and knowledge**
 - **Increase commitment**
 - **Team working**
 - **Satisfaction and motivation**
 - **Frees up a manager's time**
-

Decision Support System (DSS)

Is the specific class of computerized information system that supports business and organizational decision-making activities



DDS VS MIS Discuss

DSS	MIS
Is an information application	Is an operations application
Produces comprehensive information	Used to collect the data
Interactive inquires	Push report
Flexible format	Fixed format
Analytical modeling of business data	Extracting business data
Provide information to solve specific problem	Provide information about the performance of organization

6 C's in decision making

1. **Construct** a clear picture of precisely what must be decided.
 2. **Compile** a list of requirements that must be met.
 3. **Collect** information on alternatives that meet the requirements.
 4. **Compare** alternatives that meet the requirements.
 5. **Consider** Think about all the possible positive and negative consequences of each choice. “what might go wrong” factor with each alternative
 6. **Commit** to a decision and go with it.
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Assignment

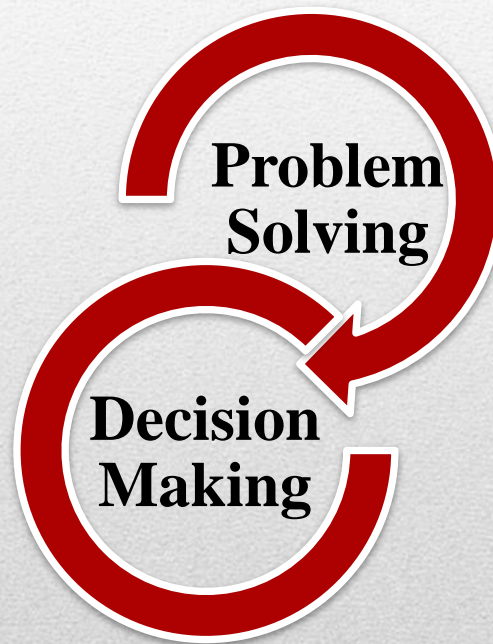
1. Every one is requested to define problem that require a decision to be made .
 2. Make the right decision
 3. Explain the steps you will follow to make the decision .
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Part 2

Things we need to know

- Problem solving
 - Decision making and problem solving tools
 - Six thinking hats
-

Problem Solving and Decision Making Relationship



Problem

- Actual performance does not match expectation
- A perceived gap between the existing state and a desired state, or a deviation from a norm, standard, or status quo.



Problem solving

“Is a cognitive processing directed at achieving a goal where no solution method is obvious to the problem solver “

Defining a problem and creating a vast number of possible solutions



Professor Mayer, Richard E.
University of California
Thinking, Problem Solving, Cognition

Problem Solving Process



1. Define problem
2. Analyze
3. Generate alternatives
4. Select alternative
5. Plan
6. Implement
7. Evaluate

In spite of this clear process of problem solving,
there are barriers stop us from solving the problem

Key barriers to solve problem

Functional fixedness: not thinking creatively (It is a narrow mind-set) people thinking that an object has only one function **e.g. foundry switch**

Confirmation bias : not following the problem solving method. **e.g. . you feel you already know everything about the problem**

Mental set: only see solutions that have worked in the past. rather than assessing and evaluating the problem **e.g. decrease the number of staff is only solution to meet budget**

Unnecessary constraints : constrain your solutions **e.g. trying to improve a service using current procedures and processes, rather than find a solution and design new procedures and processes.**

Causes : Perceptual , Emotional , Intellectual , Expressive , Cultural

Decision Making and problem solving Tools

- Six thinking hats
 - SWOT
 - Brain storming
 - Delphi techniques
 - Cause & effect
 - Cause benefits analysis
 - Decision trees
 - Pareto
 - PEST analysis
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Six Thinking Hats

1. Blue : what we are we going to think about (Goal) , focus on thinking process ,direct group to goal
2. Yellow : positive thinking , what is good on this idea
3. Black : critical thinking : weakness , risks barrier , disadvantage
4. White : facts : what information we have , what we need
5. Green : creative thinking : suggest ideas , how we can improve ideas , see possibilities , alternatives , new approach
6. Red : emotional : what you feel about ideas , what do you like about this idea



