



Training Fiche

Title	Judgment and Decision Making
Keywords	Judgement, biases, types of decisions, decision-making process, tools for decision making
Provided by	University of Economics – Varna, Bulgaria
Language	English
Objectives	<ul style="list-style-type: none"> • Raise students’ awareness of perception, judgement and decision making. • Familiarise students with various decision-making models and tools. • Improve students’ decision-making skills.
Learning outcomes	<p>After completing the module “Judgement and Decision Making”, students will gain an understanding of:</p> <ul style="list-style-type: none"> - the link between perception and judgment. - prejudices and biases that might cloud judgement. - various types of decisions. - the different steps in the process of decision making. - some factors influencing the process of decision making. - individual and group decision making. <p>Students will develop practical skills in applying:</p> <ul style="list-style-type: none"> - a range of decision-making tools. - various methods to stimulate creativity in decision making.
Training Area	Judgment and Decision Making
Content index	<ol style="list-style-type: none"> 1. Making judgment <ol style="list-style-type: none"> 1.1. Don’t leave anything to chance 1.2. Good judgment 1.3. The link between judgment and perception 1.4. Biases. Case Study (1) 1.5. Judgment and ethics 2. Types of decisions. Case Study (2) 3. Decision making <ol style="list-style-type: none"> 3.1. Decision making. Definitions. The brain, heart and gut part in the decision-making process 3.2. Approaches to the decision-making process.

	<p>Classification of some decision-making processes. Business decision-making approaches and models</p> <p>3.3. Decision making by individuals/organisations. The DECIDE decision-making model. Ethical dilemmas. Reality check</p> <p>3.4. Decision-making tree. The Vroom-Yetton-Jago normative decision model. Best Practice (1)</p> <p>3.5. Complex decision making and decision-making tools. Case Study (3). Best Practice (2)</p> <p>4. Creative and technology-enhanced decision making. Best Practice (3)</p>
<p>Content development</p>	<p>1. Making judgment</p> <p><i>“When you encounter a situation, you're like: 'Ok, this is real. I can either keep it together and do this or I can fall apart and have a meltdown.' You've got to do one or the other. And that process of evaluating the situation and getting it together and carrying on is a challenge every time.”</i> <i>Climber Marc-André Leclerc in the documentary The Alpinist (2021)</i></p> <p>1.1. Don't leave anything to chance</p> <p>You do not need to be a world-renowned climber on your ascent of a seemingly insurmountable mountain to constantly question your judgment and decisions.</p> <p>How do you become successful in your career? How do you live a meaningful and purposeful life?</p> <p>Once you believe you are successful, there are a number of things you may credit for your success. In hindsight, it is much easier to break down those small steps you have taken, those small decisions you have made on the way.</p> <p>The point is how you make sure before you ever start your journey to personal and professional satisfaction that you will competently navigate the stormy waters of career choices and life goals without leaving much to chance. Improving your sense of judgment and your decision-making skills seems one of the best decisions you can possibly make.</p> <p>1.2. Good judgment</p> <p>In their book <i>Judgment: How Winning Leaders Make Great Calls</i> (2007), Noel M. Tichy and Warren G. Bennis focus on judgment as a key leadership skill and explain why “a keen sense of judgment is what makes or breaks a leader,” with judgment being “the core of exemplary leadership” as “long-term success is the sole marker</p>

of good judgment.” They define judgment as “a contextually informed decision-making process encompassing three different domains: people, strategy, and crisis. Within each domain, leadership judgments follow a three-phase process: preparation, the call, and execution. Good leadership judgment is supported by contextual knowledge of one’s social network, organization, and stakeholders.” (Table 1)

Table 1. The three judgment domains: people, strategy and crisis

		Domains		
		People pre-call execution	Strategy pre-call execution	Crisis pre-call execution
Knowledge Creation	Self Knowledge			
	Social Network Knowledge			
	Organisational Knowledge			
	Contextual Knowledge			

Source: Tichy, N., & Bennis, W. (2008). Judgment: How Winning Leaders Make Great Calls. [Concordville, PA]: Soundview Executive Book Summaries.

Andrew Likierman (2020) defines judgment as “the ability to combine personal qualities with relevant knowledge and experience to form opinions and make decisions”, arguing that good judgment helps us make better choices, both in the absence of sufficient information or an obvious path, and in cases of relevant data gathered and all pros and cons explained.

As for the elusive nature of good judgment, Likierman notes, “A lot of ink has been spilled in the effort to understand what good judgment consists of. Some experts define it as an acquired instinct or “gut feeling” that somehow combines deep experience with analytic skills at an unconscious level to produce an insight or recognize a pattern that others overlook.” But acknowledging what sound judgment is may still be far away from knowing how to develop a better sense of it.

As a result of his research, Likierman outlines six key elements of good judgment: learning, trust, experience, detachment, options, and delivery; and further discusses the skills that need to be developed to enhance each key element and ultimately provide better judgment. (Table 2)

Table 2. How to have better judgment

Elements of good judgment	Which skills need to be developed	Food for thought



Enhance Soft Skills to Nurture Competitiveness and Employability

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Learning	Active listening Reading body language Critical reading Acknowledge your own biases	How do you filter “fake news”? Do you actively seek out opinions different from yours or you prefer to stay in your own comfort zone?
Trust	Seek diverse perspectives Surround yourself with people who question your ideas Seek trusted advice from people who wouldn’t just tell you what you want to hear	How comfortable would you be to work along with people who disagree with you? Would you consider dissent a challenge or a nuisance?
Experience	Count on relevant experience Expand your experience Assess your success rate Analyse your successes and failures Seek neutral advice	Would you ditch a steady, highly satisfying job to explore new international job opportunities in a much more challenging environment?
Detachment	Identify and challenge your own biases Understand, clarify, and accept different viewpoints Role-play situations	If in doubt, would you challenge a managerial decision or prefer to keep quiet? As a manager, would you welcome dissenting opinions or you would think of dissent as a reason for personal conflict? Which cognitive biases do you share: anchoring, confirmation, risk aversion, excessive risk appetite, excessive optimism/pessimism, overconfidence?
Options	Reflect before you act Acknowledge different perspectives Challenge all options offered Explore all solutions Choose strategically	Are you ignoring some of the options because of bias? Are you looking for confirmation of your idea instead?
Delivery	Anticipate, assess and manage risk Work on your organizational skills	Is the choice you have made feasible? What are the risks of implementation?

Source: Likierman, A. (2020). The Elements of Good Judgment. Retrieved 9 November 2021, from <https://hbr.org/2020/01/the-elements-of-good-judgment>

The interdisciplinary theory of judgment and decision making has emerged as a result of the work done by psychologists,

behavioral economists, and cognitive neuroscientists. For example, as illustrated in Table 2, the concept of bias, along with other psychological ideas, is a recurrent reference in the theory of judgment and decision making, indicating the close link between perception and judgment.

Example: Now a textbook example of good judgment (the story is also quoted by Likierman (Ibid.)), a Soviet military officer's decision may well have prevented mass destruction in the cold war period. Lieutenant colonel Stanislav Petrov chose to follow his gut feeling, ignoring satellite data that suggested a 100 per cent probability of a missile attack. He decided to report the incident as a system malfunction instead. It transpired that satellites had read reflected sunlight as a missile attack.

Assignment:

Watch this video:

<https://www.theguardian.com/us-news/video/2017/jan/22/kellyanne-conway-trump-press-secretary-alternative-facts-video>

How does the female speaker's non-verbal communication undermine her verbal message? Do you trust this person? In what way is your judgment influenced by this person's body language?

Compare your ideas on the video with Trevor Noah's comments in *The Daily Show with Trevor Noah* here:

<https://www.facebook.com/watch/?v=10155079740661800>

1.3. The link between judgment and perception

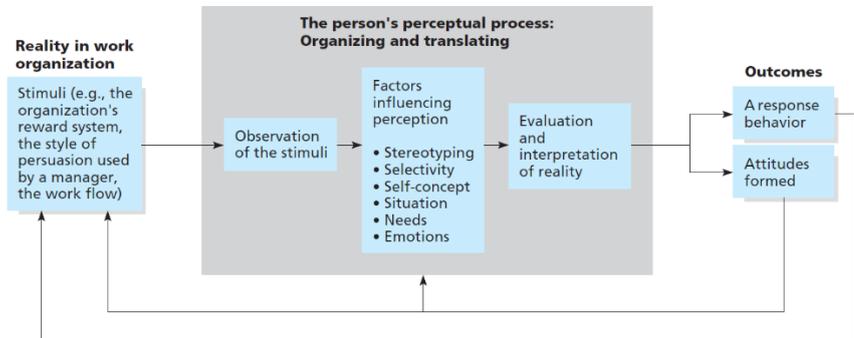
Perception: what you think of yourself and others

How you perceive the world is a reflection of what you think of yourself and others. How you perceive yourself and others is the foundation of your judgment and decision making. Knowing yourself better, recognizing your personal biases, acknowledging your comfort zone are the first and foremost steps on the road to your success story. Any of these tests might help you on the road of self-discovery:

- [https://projects.fivethirtyeight.com/personality-quiz/;](https://projects.fivethirtyeight.com/personality-quiz/)
- [https://www.16personalities.com/personality-types.](https://www.16personalities.com/personality-types)

The perceptual process illustrated in the following figure explains how we all perceive the same situation from a different vantage point, that is we "see" it differently:

Figure 1. The perceptual process



Source: Gibson, J., Ivancevich, J., Donnelly, J., & Konopaske, R. (2012). Organizations: Behavior, Structure, Processes. New York: McGraw-Hill, p. 94.

Discussing perception in a strictly business setting, Gibson points out that “the way an employee sees a situation often has much greater meaning for understanding behaviour than does the situation itself.” (p. 94) Gibson further defines perception as involving “receiving stimuli, organising them, and translating or interpreting the organised stimuli to influence behaviour and form attitudes.” (p. 94). This kind of attitude might cause perceptions leading to communication failures because we all tend to “read” the behaviour of others in the context of the situation we find ourselves in. So much for perceptual differences leading to marital drama or conflict at work.

Example: Different perceptions of the same story.

You have applied for a job and you have been shortlisted for a series of interviews that you have attended and you think you have done a fairly good job but you are wondering why you still haven't heard from the recruiting team. You decide to send an email inquiring if you are still considered for the position. You get a fairly formal reply and it seems that your email has been construed as suggesting that the recruiting team's work is slow and ineffective. You are flabbergasted as you have never intended to be rude. You have just wanted to confirm your genuine enthusiasm about this job opening.

1.3. Biases

Our perceptual biases may often lead to bad judgment if we tend to overlook them or we do not acknowledge them properly. Stereotyping people; ignoring data that may make us feel uncomfortable; thinking of ourselves as the benchmark in perceiving others; perceiving others through our own traits; our needs and emotions interfering with our perceptions – all these biases, among others, are worth exploring so that we can improve our sense of judgment.

Example: Corporate executives have been struggling for years to improve cross-cultural communication in English as the lingua

franca of global business. For example, allegedly, guides have been compiled to illustrate what British native speakers really mean. Even *The Economist* joined the discussion:

<https://www.economist.com/johnson/2011/05/27/this-may-interest-you>

Such an approach may be subject to criticism for imposing misleading national stereotypes and overgeneralizations in our perception of others:

<https://www.independent.co.uk/news/uk/home-news/chart-shows-what-british-people-say-what-they-really-mean-and-what-others-understand-a6730046.html>

Assignment: Read the case study on cognitive biases in decision making (Case Study 1). Do you think you might have been applying mental accounting in your everyday decision making without realizing? Discuss these questions:

- How would you decide if you could really afford that small treat of a cookie (2 euros) every working day at a coffee shop?
- You have bought 100 shares of stock at \$10 a share. Would you sell that stock when the price of stock fell, that is, would you sell the loser?

Refer to the suggested answers to the case. To what extent have you been influenced by mental accounting in your answers?

1.4. Judgment and ethics

Along with confronting biases, we are often faced with ethical dilemmas. An ethical dilemma is a “situation in which a person must decide whether or not to do something that, although benefiting them or the organization, or both, may be considered unethical.” (Schermerhorn, Osborn & Hunt, 2002, p. 13). This algorithm might be useful in dealing with such challenges (Ibid.):

HOW TO DEAL WITH ETHICAL DILEMMAS:

1. Recognize and clarify the dilemma.
 2. Get all the possible facts.
 3. List all of your options.
 4. Test each option by asking:
Is it legal? Is it right? Is it beneficial?
 5. Make your decision.
 6. Double check your decision by asking:
How will I feel if my family finds out? How will I feel if this is printed in the newspaper?
 7. Then, and only then, take action.
- Ethical dilemmas are just one example of the decisions we are faced with on a daily basis. (On ethical dilemmas see also 3.3)

2. Types of decisions

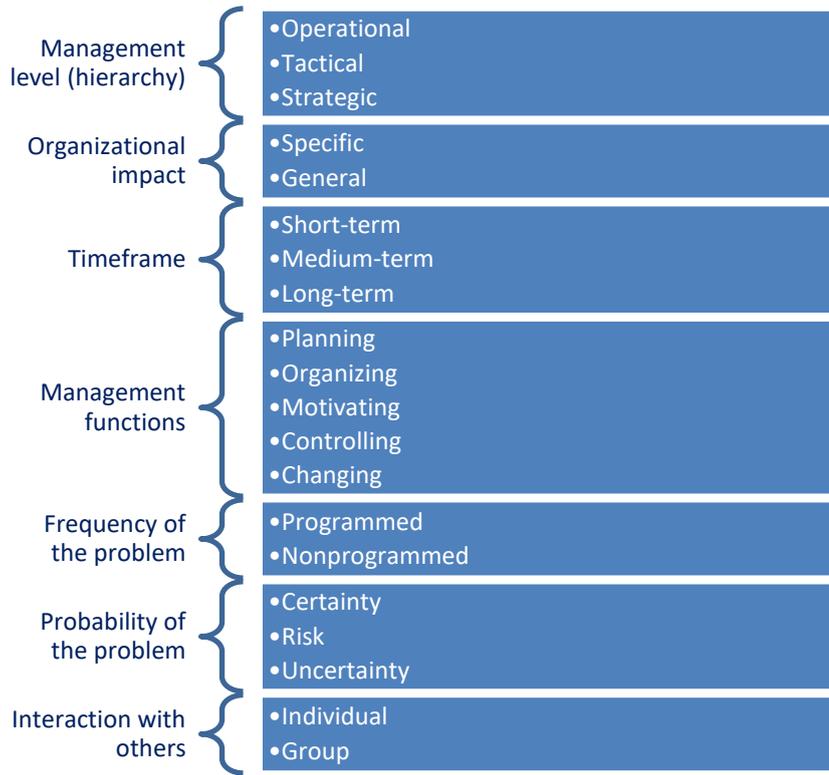
“Sometimes you make the right decision, sometimes you make the decision right.”

Phillip C. McGraw

How do you know if you have made the right decision? How to make decisions the right way? In order to answer the first question, you need to know the different types of decisions and their specifics. The answer to the second question will unfold in the next unit “Decision making”.

The different decision types are based on specific criteria for categorization. One decision may fall within several groups if it meets the criteria. Figure 2 presents the framework for categorizing decisions.

Figure 2. Framework for categorizing decisions



Source: Adapted and extended from Serafimova, D. (2015). Teoria na upravlenieto [Management theory]. Varna: Univ. izd. Nauka i ikonomika.

The criterion “management level” is based on the position you have in the hierarchy of your organization. If you are a team leader/line manager, your decisions will be mostly operational. They will be focused on day-to-day activities (e.g. which client to call first; whether to send John or Fred to the negotiations with this new prospective partner). At a higher position (mostly department managers – marketing manager, production manager, etc.), you will make predominantly tactical decisions (e.g. how to organize the new marketing campaign; do you need additional marketing experts in your department?). The strategic decisions are reserved to the top management level – you are the CEO and you need to decide which market to penetrate, which

technology to develop or where to build your Gigafactory!

Some of your decisions will be very specific (e.g. how to solve the problem with Mark always coming late for work) and they will influence only certain people/activities/departments of the organization, whereas others will be more general and will have an impact on the whole company (e.g. let's introduce a QMS at our company; what changes should we make to the structure of the compensation packages of our employees?).

Another important criterion for the classification of decisions is time. Pay attention – it is not just time you need to make your decision (obviously this should not take forever). It is the period of time over which your decision will have influence that matters. In other words, how long will the effect of your decision last? Short-term decisions have a timeframe between a day and several months. An example of such a decision may be when one of your colleagues gets sick and you need to decide what to do in order to complete an urgent order – work overtime or find a replacement for the week. Medium-term decisions normally cover a period of one year, but the main factor is the length of the business cycle of your company. Therefore, for some companies, these decisions may cover six months (e.g. what marketing campaign to launch for your new smartphone) or two years (e.g. production decisions in a ship manufacturer). Long-term decisions have a timeframe of more than one year and their impact may even go beyond 5-10 years (e.g. what technology to use for expanding your mobile network in Canada).

The management cycle is known /to every manager and every single step of it is related to various decisions to be made: planning (what to do), organizing (how to do it, with what resources), motivating (what incentives to provide for your team), controlling (when to control, which will the critical points be) and changing (what to improve for the next cycle) decisions.

A very popular system for the classification of decisions is the one developed by Herbert Simon, dividing decisions into programmed and nonprogrammed ones. The first type is “determined by past experience as appropriate for a problem at hand” (Schermerhorn, Osborn & Hunt, 2002, p. 115). On the other hand, nonprogrammed decisions are “created to deal uniquely with a problem at hand”. The main differences between these two types of decisions are presented in Table 3.

Table 3. Comparison of programmed and nonprogrammed decisions

	Programmed Decisions	Nonprogrammed Decisions
Problem	Frequent, repetitive, routine.	Novel, unstructured. Uncertainty regarding cause-

	Certainty regarding cause-and-effect relationships.	and-effect relationships.
Procedure	Dependence on policies, rules, and definite procedures.	Need for creativity, intuition, tolerance for ambiguity, and creative problem-solving.
Examples:		
Business firm	Hiring process.	New product launch.
University	Admission policies.	Construction of new business school.
Health care	Procedures to discharge patients.	Unexpected funding reduction.

Source: Gibson, J., Ivancevich, J., Donnelly, J., & Konopaske, R. (2012). Organizations: Behavior, Structure, Processes. New York: McGraw-Hill, p. 465.

All decisions are made in different circumstances. A variety of factors influence the way you are going to make certain decisions. The probability of the problem is a critical criterion that distinguishes three types of decisions:

- made in complete certainty – all factors and their influence are known to you and you have all the necessary information (in reality this situation is very rare; an example may be a controlled environment for a laboratory experiment);
- made in a risk environment – you can measure the risks associated with different factors and you have an idea of the probability of the potential outcomes (how an increase in the product price will influence the company revenues);
- made in uncertainty – you do not have all the information and often it is very hard to estimate the risks; most of the decisions fall in this category which means it is very hard to make the best (or even the optimal) decision; in this case, you need to find a satisfying solution to your problem (how to deal with breach of internal information or how to retain your best expert).

Assignment: Read the Case S: Making Decisions the Right Way – Which Decision Type Should I Choose? (Case Study 2). Answer the included questions and explain how you have identified the type of the decision that you have made. How will changing the type of your decision (e.g., from short-term to long-term) influence the outcome of the situation?

All these decisions can be made alone (individually) by yourself or you can work together with a team in order to make a group decision which will take into account the opinions of the other people involved in the decision-making process. The next unit will walk you through the stages of this process.

3. Decision making

“Should I stay or should I go?

If I go there will be trouble.

And if I stay it will be double.”

The Clash

3.1. Decision making. Definitions. The brain, heart and gut part in the decision-making process.

The ability to make decisions is considered a vital life skill. Each day we take numerous decisions: 35,000, to be more exact (Kay, 2020).

Definition. A common definition of decision making is “a conscious process of making choices among one or more alternatives with the intention of moving toward some desired state of affairs”/ desired outcomes. (McShane and Von Glinow, 2010, p. 198)

The brain, heart and gut part in the decision-making process

How do we take decisions? It might seem to us that we take lots of decisions almost automatically, unconsciously or even pre-consciously. There is a growing body of literature that supports the idea that decision making involves not only cognition, but also emotion and intuition, indicating the role of head, heart and gut in decision making. (Soosalu, Henwood & Deo, 2019)

Furthermore, “interdependence of emotional and rational processes is powerfully presented in recent neurobiological studies which establish that emotion is essential in rational decision making”. (“Emotional Decision Making”, n.d.)

Some researchers distinguish between rational decisions, bounded rational decisions (good enough decisions), intuitive decisions (gut choice) and creative decisions. Indeed, emotions might shape the way we identify the problem, filter our preferences for alternatives and the process we follow to evaluate alternatives. We do rely on our emotions for guidance when making decisions. Furthermore, apart from emotions, it is our intuition that might play a major role in the decision-making process, i.e. our “ability to know when a problem or opportunity exists and to select the best course of action without conscious reasoning. Intuition is both an emotional experience and a rapid nonconscious analytic process that involves both pattern matching and action scripts”. (McShane and Von Glinow, 2010, p. 208)

Recent research indicates that gut feel (intuition) can in fact be useful, especially in highly uncertain circumstances where further data gathering and analysis won’t help you choose one way or another. (Huang, 2019)

Some practitioners suggest that you should lead with your gut and follow the data: “Effective decision-making doesn't have to be an either-or proposition. In fact, effective decision-making should lead with a hypothesis — or intuition — and then follow the data trail to reach the final decision.” (Melendez, 2020)

According to a Wall Street Journal article (Stoll, 2019) “most business leaders trust intuition over analytics.” The article goes on to discuss how a global CEO survey from KPMG showed that “just 35% of executives highly trust their organization's data” and that two-thirds “ignored insights provided by data analysis or computer models [...] because it contradicted their intuition.”

3.2. Approaches to the decision-making process. Classification of some decision-making processes. Business decision-making approaches and models.

Decisions are made by individuals, groups of people and organisations in the framework of different specific contexts and with view of specific goals/desired outcomes. There are various approaches, models and tools used.

Each of the specified types of decision making below (rational decision making, bounded rationality, intuitive, and creative decision making) can be useful, depending on the circumstances and the problem that needs to be solved by an individual, team or organisation.

Table 4. Decision-making models

Decision-making model	Use this model when:
Rational	Information on alternatives can be gathered and quantified The decision is important You are trying to maximise your outcome
Bounded Rationality	The minimum criteria are clear You do not have or you are not willing to invest much time to make the decision You are not trying to maximize your outcome
Intuitive	Goals are unclear There is time pressure and analysis paralysis will 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

Source: Saylor Academy. (2012). Principles of Management. Retrieved 14 November 2021, from https://saylordotorg.github.io/text_principles-of-management-v1.1/s15-02-understanding-decision-making.html

Various approaches, models and tools are designed specifically for business decision making.

Some approaches to business decision making were identified by Matt Gavin (2020), who outlined the following key decision-making techniques for managers:

1. Take a Process-Oriented Approach – frame the issue at hand to ensure the right questions are being asked, and everyone agrees on what needs to be chosen. From there, build your team and manage group dynamics to analyze the problem and craft a viable solution. By following a structured, multi-step process, you can achieve the desired outcome.
2. Involve Your Team in the Process – this will bring multiple points of view into the conversation and stimulate creative problem-solving. In this way you can utilize individuals’ collective knowledge and experience, leading to more innovative solutions and helping to surface and overcome hidden biases among the group.
3. Foster a Collaborative Mindset – the advocacy mindset that views decision-making as a contest. This can be detrimental to your team's performance. That is why you need to establish an inquiry mindset that navigates decision-making with collaborative problem-solving. It centres on individuals testing and evaluating assumptions by presenting balanced arguments, considering alternatives, and being open to constructive criticism.
4. Create and Uphold Psychological Safety – for your team members to feel comfortable, sharing their diverse perspectives and working collaboratively, it is crucial to create and maintain an environment of psychological safety. To help your team feel psychologically safe, be respectful and give fair consideration when listening to everyone’s opinions.
5. Reiterate the Goals and Purpose of the Decision – the goals you are working toward need to be clearly articulated at the outset of the decision-making process—and constantly reiterated throughout—to ensure they are ultimately achieved.

These techniques stimulate especially team collaborative, creative problem solving.

As for decision making models, the following ones seem to be applied in business the most:

Table 5. Decision-making models in business

Model	Related/Similar models
Multiple Criteria Decision Analysis	Grid Analysis, Kepner-Tregoe Matrix
Paired Comparison Analysis	

Analytic Hierarchy Process	
Pro/Con	Plus/Minus/Interesting (PMI), Pro/Con/Fix(PCF), Weighted Pro/Con, T-chart, Force Field Analysis
Game Theory	
Influence diagrams	
Multi-voting	
Cost/Benefit analysis	
Net Present Value and Present Value	
Linear Programming	
Conjoint analysis	Stated Preference Analysis, Choice Modeling, Discrete Choice
Affinity Diagrams	KJ Method
Trial and Error	
Heuristic Methods	
Decision tree	

Source: Based on Decision Making Techniques. Retrieved 13 November 2021, from https://www.decision-making-solutions.com/decision_making_techniques.html

For clarity sake we will focus on just a few.

3.3. Decision making by individuals/organisations. The DECIDE decision-making model. Ethical dilemmas. Reality check

The DECIDE decision-making model

One of the most useful decision-making models is the DECIDE decision-making model, predominantly a rational approach, used by individuals and organisations/ businesses.

Table 6. The DECIDE decision-making model

D	Define the problem
E	Establish the criteria
C	Consider all the alternatives
I	Identify the best alternative
D	Develop and implement a plan of action
E	Evaluate and monitor the solution

Source: Guo, K. (2008). DECIDE. *The Health Care Manager*, 27(2), 118-127. doi: 10.1097/01.hcm.0000285046.27290.90

Some variations of the model indicate that when you identify criteria you also assign different weight to them before examining specific options. (Saylor Academy, 2012).

Other model variations include value identification as a separate step in the decision-making process.

Table 6. The DECIDE decision-making model

D	Define the problem
E	Explore the alternatives
C	Consider the consequences
I	Identify your values
D	Decide and take action
E	Evaluate your decision

Source: Kay, J. (2020). The D.E.C.I.D.E. Model: A Tool For Teaching Students How to Making Healthy Decisions - Project School Wellness. Retrieved 12 November 2021, from <https://www.projectschoollwellness.com/the-d-e-c-i-d-e-model-a-tool-for-teaching-students-how-to-making-healthy-decisions/>

What is especially interesting in the model above is that after defining the problem, and exploring various alternatives and evaluating their consequences, you revisit your own values/identity and from that identified perspective you decide on a specific action. (In the previous variant the identity perspective is probably present throughout the whole process.)

The role of our values, self-image and identity awareness in the decision-making process could be illustrated with an example:

Dilemma situation: You know that you can copy and paste a previously written text of yours during an online exam. Yet, there are clearly written instructions: you are not supposed to use the “Copy and paste” function. The problem is for you to decide on a suitable course of action. Considering the consequences, you are well aware that probably you will get a higher grade. (It’s so well written and after all, it’s your own text, right, it’s not even cheating, right? On the other hand, it’s not fair to the other examinees, isn’t it? And definitely breaking the rules!)

What you will do largely depends on your own values and your self-image: are you the kind of person that is actually going to cheat if the circumstances allow that, i.e. will you take action from the position of your own values/identity, desired results and last but not least some objective context determinants (regulations, control and supervision, acceptable cultural practices)?

Discussion: what will you do in similar circumstances?

Another example: You are already working for a large company. You are asked to write the annual report for the Marketing Director. While you prepare the report, you become aware that the final conclusions will reflect badly on your immediate supervisor: none of the deadlines have been met during the last year; obviously there is a certain budget misalignment; the morale in the team seems to be low: your supervisor obviously lacks team management and leadership skills. How are you going

to proceed? Again, it comes down to revisiting your values/identity and/or the company accepted practices/values/code of behaviour after evaluating the options and their implications and deciding on a particular course of action as to what kind of report you are going to write. (Many companies have specific guidelines how to escalate a problem, if you encounter/recognize one.)

Discussion: ethical decisions in the workplace.

Since many decisions involve an ethical aspect, one of the most important considerations in your workplace decisions you are making as an employee or manager are ethical ones. Here are some basic questions you can ask yourself to assess the ethics of a decision:

Is this decision fair?

Does this decision break any laws?

Does this decision break any organizational rules?

Will I feel better or worse about myself after I make this decision?

How would I feel if this decision was broadcast on the news?

(Source: Based on Carpenter, M., Bauer, T., & Erdogan, B. (2012). Principles of Management. Retrieved 13 November 2021, from <https://courses.lumenlearning.com/principlesmanagement/chapter/11-2-understanding-decision-making/>)

**The DECIDE decision-making model for teams/organisations.
Reality check**

The DECIDE decision-making model is used by teams/organisations as well. Similarly, it includes identifying problems and opportunities, choosing the best decision style, developing alternative solutions, choosing the best solution, implementing the selected alternative, and evaluating decision outcomes. (McShane and Von Glinow, 2010)

To a large extent this approach could be considered a rational approach. However, the reality check of actual organisational life could be quite different from neatly structured expectations.

Table 7. Rational Choice Assumptions versus Organizational Behavior Findings about Choosing Alternatives

Rational Choice Paradigm Assumptions	Observations from Organizational Behavior
Goals are clear, compatible, and agreed-on.	Goals are ambiguous, in conflict, and lack full support.
Decision makers can calculate all alternatives and their outcomes.	Decision makers have limited information processing abilities.
Decision makers evaluate all alternatives simultaneously.	Decision makers evaluate alternatives sequentially.
Decision makers use absolute	Decision makers evaluate

standards to evaluate alternatives.	alternatives against an implicit favourite.
Decision makers use factual information to choose alternatives.	Decision makers process perceptually distorted information.
Decision makers choose the alternative with the highest payoff.	Decision makers choose the alternative that is good enough (satisfying).

Source: McShane, S. and Von Glinow, M. (2010). Organizational behaviour. Boston: McGraw-Hill Irwin, p. 204.

3.4. Decision-making tree. The Vroom-Yetton-Jago normative decision model

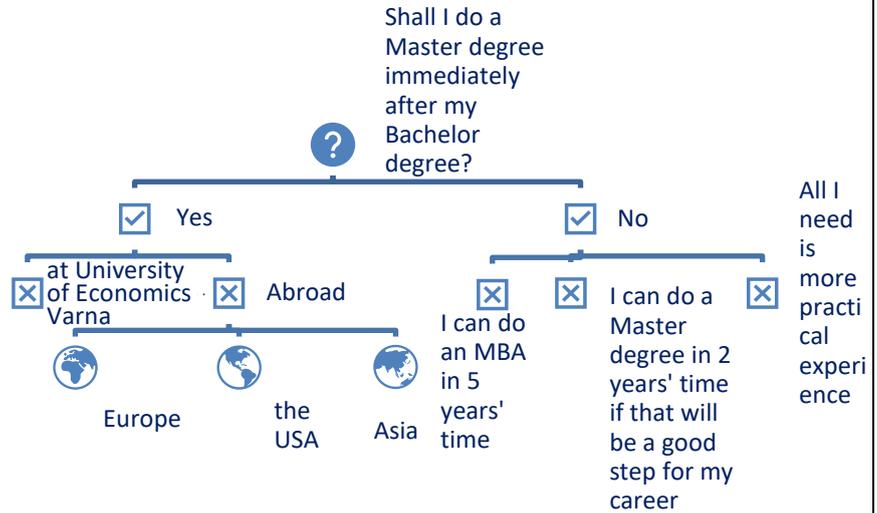
A decision tree is “a visual map that shows two or more distinct decision pathways”. A decision tree demonstrates outcomes attached to a string of related choices; it can be used to assign probability values to those outcomes; it is especially useful in yes-or-no decisions and apples-to-oranges comparisons. Moreover, it can be used by individuals, teams and organisations alike. One of the biggest advantages of using a decision tree is that it makes complex evaluations easier for everyone on your team to follow and understand. (Armstrong, 2021)

“Decision trees are useful tools, particularly for situations where financial data and probability of outcomes are relatively reliable. They are used to compare the costs and likely values of decision pathways that a business might take. They often include decision alternatives that lead to multiple possible outcomes, with the likelihood of each outcome being measured numerically.” (Carpenter, Bauer & Erdogan, 2012)

Let’s illustrate the decision-making tree with an example.

Example: After graduating from your university (University of Economics – Varna, BSc International Economic Relations), you are considering several options, each of them with a potentially different career track. (Figure 3) At a next level you can add new branches to the tree. It can be a useful tool when you consider several options with different outcomes.

Figure 3. Choices after graduation



Assignment: The Vroom-Yetton-Jago normative decision model
Read the description of the Vroom-Yetton-Jago normative decision model, used as a good practice example (Best Practice 1).

Dilemma: You run a small, unbranded hotel but lately business has been slow. Your team is pretty experienced and very dedicated and you are wondering why your revenue is so low. You know that you need to find a way to increase revenue but you wonder if it is worth discussing the issue with your team since you are the only one holding a degree in Tourism.

Decision needed on how to increase hotel revenue.

Use the info in the best practice and the questions in this MindTools infographic, available at:

https://www.mindtools.com/media/Images/Infographics/The_Vroom_Yetton_Decision_Model_final.pdf.

What would you prefer to do:

- make the decision on your own, using the information available: decision-making style Autocratic 1 (A1).
- initiate a discussion with your team to elicit more information but ultimately make the decision on your own: decision-making style Autocratic 2 (A2).
- meet each team member individually, ask for information, yet make the decision alone: decision-making style Consultative 1 (C1).
- share with team members collectively, ask for information, yet make the decision alone: decision-making style Consultative 2 (C2).
- have a meeting with your team, explain the situation, lead the discussion, encourage people to build on each other's ideas, and ultimately let your team make the decision, without imposing your will: decision-making style Group 2

(G2).

Have you included your team in your decision making? Why? Why not? Will you describe your decision-making style in this dilemma as autocratic, consultative or group-based? What are the pros and cons of each style in this situation?

3.5. Complex decision making and decision-making tools

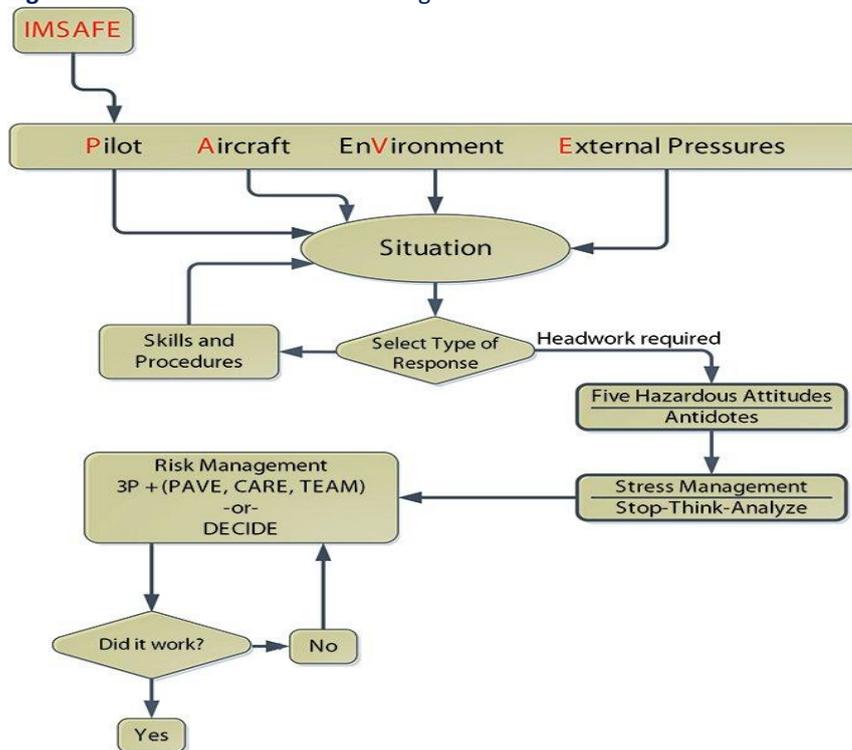
What makes some decisions complex?

Assignment: Aeronautical decision-making tools

Have a look at the best practice example of Aeronautical decision-making tools. (Best Practice 2)

After you get familiar with the underlying rationale and the specific steps, checklists, decision making and risk management tools for pilots, outline the main steps using the following flowchart (Figure 4):

Figure 4. Aeronautical decision-making tools



Source: Simonds, F. (2016). Good Pilot Decision Making - IFR Magazine. Retrieved 14 November 2021, from <https://www.ifr-magazine.com/training-sims/good-pilot-decision-making/>

Assignment: You work at the International Office of your university and you are responsible for further internationalisation and digitalisation of the university programs with view of improving the students' employability prospects in a continuously globalised job market, and in particular developing

intercultural communication skills and leadership. You have several ideas along these lines. One of your priorities is to work with other Erasmus+ universities (using EU project funding) in order to multiply the effect and provide structured opportunities for work in international teams (students/lecturers/administration staff). You have to take into account collaboration with the business with view of better employability options for students.

Put down your ideas in bullet points.

Share your ideas with your colleagues in a brainstorming session. Then take a group decision, using a chosen decision-making method, e.g. DECIDE

Compare your results with the outcomes in the PROMINENCE case study (Case Study 3).

Complex decision-making models and real-life practice

Can theoretical models facilitate all complex decision-making processes in real-life situations?

Prof. Peter McBurney (n.d.) claims that a new theory of complex decisions is required to address complex situations not fitting regular decision-making models and theories. According to him, some of the factors contributing to real life complexity are the following:

- The problems are not posed in a form amenable to classical decision theory.
- There are fundamental domain uncertainties.
- Decisions may be unique (non-repeated).
- There may be multiple stakeholders and participants to the decision.
- Domain knowledge may be incomplete and distributed across these stakeholders.
- Beliefs, goals and preferences of the stakeholders may be diverse and conflicting.
- Beliefs, goals and preferences of stakeholders, the probabilities of events and the consequences of decisions may be determined endogenously, as part of the decision process itself.
- The decision-maker may not fully understand what actions are possible until he or she begins to execute.
- Some actions may change the decision-making landscape, particularly in domains where there are many interacting participants.
- Measures of success may be absent, conflicting or vague.
- The consequences of actions, including their success or

failure, may depend on the quality of execution, which in turn may depend on attitudes and actions of people not making the decision.

- As a corollary of the previous feature, success of an action may require extensive and continuing dialog with relevant stakeholders, before, during and after its execution.
- Success may require pre-commitments before a decision is finally taken.
- The consequences of decisions may be slow to realize.
- Decision-makers may influence the consequences of decisions and/or the measures of success.
- Intelligent participants may model each other in reaching a decision, which prof. Burney calls reflexivity.

Assignment:

Choose three of those factors and find examples in the blog that illustrate them. (<https://www.gdrc.org/decision/complex-decisions.html>). Think of other examples.

Example: This McKinsey table showcases how to improve decision-making outcomes by increasing speed and enhancing quality in the corporate decision-making process. A special feature of this approach is that it indicates the decision maker with view of the specific practice.

Table 8. For each major decision category, a standout practice can yield outsize improvements in both decision quality and speed

Key practices by decision type	Who makes it	How to make it better
Big-bet decisions Infrequent, high risk, future shaping (e.g., M&A)	Top team; board	Spur productive debate – e.g., assign someone to argue the case for and against a potential decision
Cross-cutting decisions Frequent, often high risk, collaborative (e.g., operations planning, pricing)	Business-unit heads; senior managers	Double down on process – one that helps clarify objectives, measures, and targets
Delegated decisions Frequent, low risk, day-to-day (e.g., hiring, marketing)	Individuals; working teams	Ensure commitment – not just consensus

Source: De Smet, A., Jost, G., & Weiss, L. (2019). Three keys to faster, better decisions. Retrieved 14 November 2021, from <https://www.mckinsey.com/business-functions/people-and-organizational-performance/our-insights/three-keys-to-faster-better-decisions>

According to the authors, “Big-bet decisions (such as a possible

acquisition) are infrequent but high risk and have the potential to shape the future of the company; these are generally the domain of the top team and the board. Cross-cutting decisions (such as a pricing decision), which can be high risk, happen frequently and are made in cross-functional forums as part of a collaborative, end-to-end process. Delegated decisions are frequent but low risk and are effectively handled by an individual or working team, with limited input from others.”

The authors further explain that “these types of decisions happen at the appropriate level of the company (CEOs, for example, shouldn’t make decisions that are best delegated).”

Nevertheless, it is pointed out that there are many instances of decisions taken at a level higher than necessary. This inevitably leads to a waste of time, compromised quality of decision-making outcomes and increasing levels of frustration among the decision makers.

4. Creative and Technology-enhanced Decision Making

“Don’t loaf and invite inspiration; light out after it with a club, and if you don’t get it you will nonetheless get something that looks remarkably like it.”

Jack London

Most decisions are unprogrammed and made in uncertainty. You need to apply a creative approach to find an appropriate solution. This unit presents an overview of various tools for creative and technology-enhanced decision making.

A simple and engaging way of sparking creativity in decision making is offered by Gibson et. al. (2012, 481, adapted from John M. Ivancevich, Robert Konopaske, and Michael T. Matteson, Organizational Behavior and Management, 9th ed. (Burr Ridge, IL: McGraw-Hill, 2011), p. 426.) in several personal challenges:

Table 9. Personal challenges for creativity

No	Challenge
1.	Get out of the office. Take a walk at a park or mall during lunch. Give your mind a chance to percolate on the problem or issue. Try to minimize phone calls, text messages, and other distracting activities during this quiet thinking time.
2.	Be childlike. Try to look at the problem like a child would. Some believe this fresh approach is the most important gateway to thinking outside the box because it frees the mind of conventional “grown up” thinking.
3.	Be a maverick. The best ideas and decisions often come from those who don’t care about what others are thinking of them.
4.	Break your routine. Park on a different side of the building. Talk with people you don’t know well. Read a magazine or blog that wouldn’t

	normally interest you. Ideas can come from many different sources.
5.	Ask “What if . . . ?” This question can stimulate your thoughts and plenty of discussion in a group.
6.	Listen. No one has a monopoly on good ideas. Ask questions, and then listen.

Source: Gibson, J., Ivancevich, J., Donnelly, J., & Konopaske, R. (2012). Organizations: Behavior, Structure, Processes. New York: McGraw-Hill.

You might wonder what creative tools you will need to help you with inspiration, ideation and implementation of your ideas. The tools offered by Design Kit by Ideo.org provide such an opportunity. All suggested activities are based on the human-centred design concept which involves the human perspective in all steps of the problem-solving process. The tools are user-friendly, offering information about the suggested time, level of difficulty, materials needed, participants, process phases and steps for implementation.

Link: <https://www.designkit.org/methods/>

Assignment: Check out the list of tools for the inspiration phase and select the three which you consider the most appropriate for boosting your inspiration. Explain your reasons to your colleagues and exchange ideas.

New technologies can be a great asset and provide you with the tools needed to level up your decision making.

A definitive guide to business decision making is offered by Smartsheet. It includes valuable tools for facilitating the process of making a decision (Decision-Making Checklist, Box Decision Matrix Templates, Team Building Exercises to Improve Decision-Making, Framework for the Ethical Decision-Making Process).

Link: <https://www.smartsheet.com/business-decision-making-process>

A very good example of technology-enhanced decision making in business is provided by Matthew Martin (2021), who collected 10 BEST Decision-Making Tools for Business:

1. SWOT Diagram – SWOT stands for Strengths, Weaknesses, Opportunities, and Threats. SWOT Diagram is an important management application that helps any organization to assess its current situation. It works as a basic guide for strategic planning. Tool to create SWOT Diagram: [Creately](#).
2. Decision-Making Diagram – decision-making diagrams are graphs that enable you to map out the decision you have taken. Tool to create Decision-Making Diagram:

Lucidchart.

3. Decision Matrix – a decision matrix is a technique that contains values that help you to identify and analyze the performance of the system. The elements of a decision matrix show results depending on specific criteria. Tool to create Decision Matrix: MindTools.
4. Pareto Analysis – used for prioritizing possible changes by identifying the problems and resolving them. Tool to create Pareto Analysis: Visual Paradigm.
5. Cause and Effect or Ishikawa Diagram – shows the causes of a particular event. It can be used for product design and quality check to identify possible factors causing an overall effect. You can group causes into categories to find sources of variation. Tool to create Cause and Effect or Ishikawa Diagram: SmartDraw.
6. Force Field Analysis – it provides a framework for looking at the factors that influence a particular situation. Tool to create Force Field Analysis: SmartDraw.
7. Strategy Map – a diagram that can be used to document strategic business goals. This map is created during the planning process of a business. It is used as a primary material to check in and review meetings. Tool to create Strategy: Cascade Strategy.
8. Break-Even Analysis – helps you to determine at what stage a new business product will be profitable. Tool to create break-even analysis: Good Calculators.
9. Pugh Matrix - a diagram that is used to evaluate alternative business solutions. It helps you to determine which solutions are more valuable than the others. This method does not require a massive amount of quantitative data. Tool to create Pugh Matrix: Psychologia.
10. Ratio Analysis – used for comparison of items available in the financial statements of a business. It is used to evaluate a number of problems with a legal entity, such as its liquidity, efficiency of operation, and more. Tool to create Ratio Analysis: Finstanon.

Link: <https://www.guru99.com/decision-making-tools.html>

Another excellent example is provided by MindTools with their toolkit on decision making in 8 categories:

Table 10. MindTools toolkit on decision making



Enhance Soft Skills to Nurture Competitiveness and Employability

www.projectessence.eu

Category	Tools
Start Here	How to make decisions; How good is your decision making
Decision-Making Models	The Vroom-Yetton Decision Model, The Kepner-Tregoe Matrix, etc.
Choosing Between Options	What Is Prospect Theory?, The Analytic Hierarchy Process (AHP), etc.
Deciding Whether to Go Ahead	Go/No-Go Decisions, Risk Impact/Probability Charts, etc.
Financial Decisions	Cost-Benefit Analysis, Cash Flow Forecasting
Improving Decision Making	Avoiding Psychological Bias in Decision Making, Personal Preparation for Great Decision Making, etc.
The Impact of Ethics and Values	The Foursquare Protocol, Spiral Dynamics, etc.
Group Decision Making	Multi-Voting, Organizing Team Decision Making, etc.

Source: Decision-Making Techniques: How to Make Better Decisions. (2021). Retrieved 15 November 2021, from https://www.mindtools.com/pages/main/newMN_TED.htm

If you need a comprehensive resource on decision making, you should also check Max H. Bazerman (2021), who provided insights and useful exercises on the topic of judgment and decision making. His chapter is an invaluable mix of theory, contemporary practices, real-life examples, tasks, vocabulary and resources.

Link: <https://nobaproject.com/modules/judgment-and-decision-making>

Assignment: Decision-making framework in healthcare

Have a look at the best practice example of Decision-Making Framework in Healthcare. (Best Practice 3)

Consider the three quiz items offered by Max Bazerman and outline how this approach can facilitate the successful implementation of the Decision-Making Framework developed by The College of Occupational Therapists of Ontario.

Successfully solving the plethora of problems you will face in your professional career is not only related to the knowledge of the decision-making process, but also to the ability to use different decision-making tools. The presented overview can be used as a starting point in the journey of decision making but it is up to you to choose wisely and be always curious and open to new ways of reaching your goals.

Glossary

Certain environments – information is sufficient to predict the results of each alternative in advance of implementation.

Decision making – “a conscious process of making choices among one or more alternatives with the intention of moving toward some desired state of affairs”/desired outcomes. (McShane and Von Glinow, 2010, p. 198).

Decision-making tree – “a visual map that shows two or more distinct decision pathways” (Armstrong, 2021).

Ethical dilemma - a situation in which a person must decide whether or not to do something that, although benefiting them or the organization, or both, may be considered unethical (Schermerhorn, Osborn & Hunt, 2002, p. 13).

Intuition - our “ability to know when a problem or opportunity exists and to select the best course of action without conscious reasoning. Intuition is both an emotional experience and a rapid nonconscious analytic process that involves both pattern matching and action scripts”. (McShane and Von Glinow, 2010, p.208).

Judgment 1. the ability to combine personal qualities with relevant knowledge and experience to form opinions and make decisions (Likierman, 2020). 2. the core of exemplary leadership; a contextually informed decision-making process encompassing three different domains: people, strategy, and crisis. Within each domain, leadership judgements follow a three-phase process: preparation, the call, and execution. Good leadership judgment is supported by contextual knowledge of one’s social network, organization, and stakeholders (Tichy & Bennis, 2008)

Nonprogrammed decisions – decisions required by unique and complex management problems.

Perception - the process by which an individual gives meaning to the environment. It involves organizing and interpreting various stimuli into a psychological experience (Gibson, et. al., 2012, p. 94).

Programmed decisions – specific procedures developed for repetitive and routine problems.

Risk environments – decision makers lack complete certainty regarding the outcomes of various courses of action, but they are aware of the probabilities associated with their occurrence.

Uncertain environments – managers have so little information on hand that they cannot even assign probabilities to various alternatives and their possible outcomes.

Self-evaluation

- 1) According to Likierman’s research, these are the key elements of good judgment:
 - a) trust, experience, detachment, options, cognition and delivery
 - b) learning, trust, detachment, options, distinction and delivery
 - c) learning, trust, experience, detachment, options, and delivery

- 2) Each day we take roughly:
 - a) 35 decisions
 - b) 350 decisions
 - c) 35,000 decisions

- 3) The first three steps in the DECIDE decision-making model are
 - a) Determine the action, Establish a framework, Consider the criteria
 - b) Define the problem, Evaluate the consequence, Consider a plan for action
 - c) Define the problem, Explore the alternatives, Consider the consequences

- 4) We distinguish between programmed and unprogrammed decisions according to this criterion of classification:
 - a) Organizational impact
 - b) Frequency of the problem
 - c) Probability of the problem

- 5) According to the criterion “timeframe”, the types of decisions are:
 - a) Short-term, medium-term and long-term
 - b) Operational, tactical and strategic
 - c) Specific and general

- 6) If you use a common procedure to deal with customer complaints, this will be:
 - a) A programmed decision
 - b) A strategic decision
 - c) An individual decision

- 7) Nonprogrammed decisions are:
 - a) Repetitive and unstructured
 - b) Routine in certainty
 - c) Novel in uncertainty

- 8) According to a Wall Street Journal article (John D. Stall, Oct. 18 2019) most business leaders trust:
 - a) intuition over analytics
 - b) brains will trump brawn
 - c) rational over emotional decisions

- 9) Acknowledging biases:
 - a) facilitates decision making
 - b) does not influence decision making



c) jeopardises decision making

10) Who should be in charge of frequent, low-risk decisions, such as regular recruitment (According to McKinsey article by De Smet, Jost & Weiss, 2019):

- a) the board of directors
- b) senior management
- c) individuals/working teams

Answers: 1c, 2c, 3c, 4b, 5a, 6a, 7c, 8a, 9a, 10c

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