# Problem-solving and decision-making

### Simple Processes for Problem-Solving and Decision-Making

Problem solving and decision-making are important skills for business and life. Problem-solving often involves decision-making, and decision-making is especially important for management and leadership. There are processes and techniques to improve decision-making and the quality of decisions. Decision-making is more natural to certain personalities, so these people should focus more on improving the quality of their decisions. People that are less natural decision-makers are often able to make quality assessments, but then need to be more decisive in acting upon the assessments made. Problem-solving and decision-making are closely linked, and each requires creativity in identifying and developing options, for which the [brainstorming](http://www.businessballs.com/brainstorming.htm) technique is particularly useful. See also the [free SWOT analysis template and examples](http://www.businessballs.com/swotanalysisfreetemplate.htm), and [PEST analysis template](http://www.businessballs.com/pestanalysisfreetemplate.htm), which help decision-making and problem-solving. SWOT analysis helps assess the strength of a company, a business proposition or idea; PEST analysis helps to assess the potential and suitability of a market. Good decision-making requires a mixture of skills: creative development and identification of options, clarity of judgment, firmness of decision, and effective implementation. For group problem-solving and decision-making, or when a consensus is required, [workshops](http://www.businessballs.com/workshops.htm) help, within which you can incorporate these tools and process as appropriate. Here are some useful methods for effective decision-making and problem-solving: First a simple step-by-step process for effective decision-making and problem-solving.

## Decision-making process

 Define and clarify the issue - does it warrant action? If so, now? Is the matter urgent, important or both. See the [Pareto Principle](http://www.businessballs.com/quotes.htm#pareto_principle_pareto%27s_law).

 Gather all the facts and understand their causes.

 Think about or brainstorm possible options and solutions. (See [brainstorming](http://www.businessballs.com/brainstorming.htm) process)

 Consider and compare the pros and cons of each option - consult if necessary - it probably will be.

 Select the best option - avoid vagueness or 'foot in both camps' compromise.

 Explain your decision to those involved and affected, and follow up to ensure proper and effective implementation.

Decision-making maxims will help to reinforce the above decision-making process whether related to problem-solving or not, for example:

"We know what happens to people who stay in the middle of the road. They get run down." (Aneurin Bevan)

"In any moment of decision the best thing you can do is the right thing, the next best thing is the wrong thing, and the worst thing you can do is nothing." (Attributed to Theodore Roosevelt - more maxims on the [quotes page](http://www.businessballs.com/quotes.htm))

JFDI - Just Frigging Do it (polite version). The decision-maker's motto. There are usually several right answers when you are faced with a complex decision. When you've found the best solution you can find, get on with it, make it work, and it most probably will. (More useful rules, acronyms and training ideas on the [acronyms page](http://www.businessballs.com/acronyms.htm))

## Pros and cons decision-making method

Another simple process for decision-making is the pros and cons list.

Pro means 'for', and con means 'against'. In other words, advantages and disadvantages.

This method also applies to all sorts of problem-solving where issues and implications need to be understood and a decision has to be made.

Some decisions are a simple matter of whether to make a change or not, such as moving, taking a new job, or buying something, selling something, replacing something, etc. Other decisions involve number of options, and are concerned more with how to do something, involving a number of choices. Use the [brainstorming](http://www.businessballs.com/brainstorming.htm) process to identify and develop options for decision-making and problem-solving.

1. First you will need a separate sheet for each identified option.
2. On each sheet write clearly the option concerned, and then beneath it the headings 'pros' and 'cons' (or 'advantages' and disadvantages', or simply 'for' and 'against'). Many decisions simply involve the choice of whether to go ahead or not, to change or not; in these cases you need only one sheet.
3. Then write down as many effects and implications of the particular option that you (and others if appropriate) can think of, placing each in the relevant column.
4. If helpful 'weight' each factor, by giving it a score out of three or five points (e.g., 5 being extremely significant, and 1 being of minor significance).
5. When you have listed all the points you can think of for the option concerned compare the number or total score of the items/effects/factors between the two columns.
6. This will provide a reflection and indication as to the overall attractiveness and benefit of the option concerned. If you have scored each item you will actually be able to arrive at a total score, being the difference between the pros and cons column totals. The bigger the difference between the total pros and total cons then the more attractive the option is.
7. If you have a number of options and have complete a pros and cons sheet for each option, compare the attractiveness - points difference between pros and cons - for each option. The biggest positive difference between pros and cons is the most attractive option.
8. **N.B. If you don't like the answer that the decision-making sheet(s) reflect back to you, it means you haven't included all the cons - especially the emotional ones, or you haven't scored the factors consistently, so re-visit the sheet(s) concerned.**

You will find that writing things down in this way will help you to see things more clearly, become more objective and detached, which will help you to make clearer decisions.

## Pros and cons weighted decision-making template - example

This example weighs the pros and cons of buying a new car to replace an old car.

The weighted pros and cons are purely examples - they are not in any way suggestions of how you should make such a decision. Our decision-making criteria depend on our own personal situations and preferences. And your criteria and weighting will change according to time, situation, and probably your mood too.

Use whatever scoring method you want to. The example shows low scores but you can score each item up to 10, or 20 or 100 - whatever makes sense to you personally. Or you can use an 'A/B/C' or three-star scoring method, whatever works for you.

|  |
| --- |
| Should I replace my old car with a new one? |
| pros (for - advantages) | **score** | **cons (against - disadvantages)** | **score** |
| better comfort  | **3** | cost outlay will mean making sacrifices  | **5** |
| lower fuel costs  | **3** | higher insurance | **3** |
| lower servicing costs  | **4** | time and hassle to choose and buy it  | **2** |
| better for family use  | **3** | disposal or sale of old car  | **2** |
| better reliability  | **5** | big decisions like this scare and upset me  | **4** |
| it'll be a load off my mind  | **2** |   |   |
|   |   |   |   |
|  total 6 pros | **20** | **total 5 cons** | **16** |

In the above example, on the basis of the pros and cons and the weighting applied, there seems to be a clear overall (and quantifiable) advantage in the decision to go ahead and buy a new car.

Notice that with this decision-making method it's even possible to include 'intangible' emotional issues in the pros and cons comparison, for example 'it'll be a load off my mind', and 'decisions scare and upset me'.

A decision-making pros and cons list like this helps remove the emotion which blocks clear thinking and decision-making. It enables objectivity and measurement, rather than reacting from instinct, or avoiding the issue altogether. Objective measurement helps in making a confident decision.

The total weighted scores are the main deciding factor rather than the total number of pros and cons, although there is not a scientific 'right' or 'wrong' way to consider the total number of pros and cons compared with the total weighted scores.

If the weighted scores are indicating a decision which makes you feel uncomfortable, then check your weightings, and also check that you've not missed out any factors on either side of the table.

If the decision makes you feel uncomfortable and this is not reflected in the table, then add it as a factor and give it a score.

Seeking feedback or input from a trusted neutral friend can be helpful in confirming your factors and their scores.

## Blank pros and cons decision-making template

You should be able to cut and paste this template into a text editor or spreadsheet. Add more rows as required.

|  |
| --- |
| question/decision/option:  |
| pros (for - advantages) | **score** | **cons (against - disadvantages)** | **score** |
|   |   |    |   |
|   |   |   |   |
|   |   |   |   |
|   |   |   |   |
|   |   |   |   |
|   |   |   |   |
|   |   |   |   |
|   |   |   |   |
| totals |   | **totals** |   |

Note: The above methods are similar to - but not the same as - 'Force Field Analysis', an analytical theory developed by psychologist Kurt Lewin (1890-1947), originally to assess factors influencing group behavior. The Lewin model is typically shown as a simplified diagram, with horizontal arrows alongside each factor pointing to the space between the columns. Explained above is an different and logically developed weighted decision-making method, not Lewin's Force Field Analysis.

## Complex problems and decisions

For more complex decisions and problems involving more than two possible options you can use several pros and cons tables in conjunction, to compare the overall weight of each option.

In such cases the wording of the options is important, for example, if considering the best path for one's own career and work development the options might be:

* be employed, working for a big company
* be self-employed, working as a consultant or freelancer from home
* start a business, with premises and staff

A situation like this can be approached by completing three separate pros and cons tables and then comparing the net effects (difference between weighted pros and cons) of each one.

While this won't necessarily evaluate and compare all possible inter-related aspects of the whole situation, it will help to give great clarity and detached objectivity (detached as in unemotional), which can be very difficult to find when confronted with a complicated and big challenge offering several options.

Also consider that some decisions and challenges are difficult because you don't have the necessary knowledge or experience, in which case you need first to decide if the decision or challenge is actually appropriate and necessary for you at this stage.

Some decisions have to be made whether you are ready or not. Others might not be as pressing as you imagine.

Do not be forced into a change-based decision if having considered the implications carefully you decides that it's not the best thing to do.

The decision to do nothing different, in the right way for the right reasons, is often a perfectly good option.

Whatever you do - try to be as objective as you can be.

Well prepared decisions are easier to make and to implement, and generally produce the best results.