Grid Analysis –

Grid Analysis is a useful technique to use for making a decision. It is most effective where you have a number of good alternatives and many factors to take into account.

The first step is to list your options and then the factors that are important for making the decision. Lay these out in a table, with options as the row labels, and factors as the column headings.

Next work out the relative importance of the factors in your decision. Show these as numbers. We will use these to weight your preferences by the importance of the factor. These values may be obvious. If they are not, then use a technique such as Paired Comparison Analysis to estimate them.

The next step is to work your way across your table, scoring each option for each of the important factors in your decision. Score each option from 0 (poor) to 3 (very good). Note that you do not have to have a different score for each option - if none of them are good for a particular factor in your decision, then all options should score 0.

Now multiply each of your scores by the values for your relative importance. This will give them the correct overall weight in your decision.

Finally add up these weighted scores for your options. The option that scores the highest wins!

Example:
A windsurfing enthusiast is about to replace his car. He needs one that not only carries a board and sails, but also that will be good for business travel. He has always loved open-topped sports cars. No car he can find is good for all three things.

His options are:

- A four wheel drive, hard topped vehicle
- A comfortable 'family car'
- An estate car
- A sports car

Criteria that he wants to consider are:

- Cost
- Ability to carry a sail board at normal driving speed
- Ability to store sails and equipment securely
- Comfort over long distances
- Fun!
- Nice look and build quality to car

Firstly he draws up the table shown in Figure 1, and scores each option by how well it satisfies each factor:

Figure 1: *Example Grid Analysis Showing Un-weighted Assessment of How Each Type of Car Satisfies Each Factor*

Factors:	**Cost**	**Board**	**Storage**	**Comfort**	**Fun**	**Look**	**Total**
Weights:							
Sports Car	1	0	0	1	3	3	
4 Wheel Drive	0	3	2	2	1	1	
Family Car	2	2	1	3	0	0	
Estate Car	2	3	3	3	0	1	

Next he decides the relative weights for each of the factors. He multiplies these by the scores already entered, and totals them. This is shown in Figure 2:

Figure 2: *Example Grid Analysis Showing Weighted Assessment of How Each Type of Car Satisfies Each Factor*

Factors:	**Cost**	**Board**	**Storage**	**Comfort**	**Fun**	**Look**	**Total**
Weights:	**4**	**5**	**1**	**2**	**3**	**4**	
Sports Car	4	0	0	2	9	12	**27**
4 Wheel Drive	0	15	2	4	3	4	**28**
Family Car	8	10	1	6	0	0	**25**
Estate Car	8	15	3	6	0	4	**36**

This gives an interesting result: Despite its lack of fun, an estate car may be the best choice.

If the wind-surfer still feels unhappy with the decision, maybe he has underestimated the importance of one of the factors. Perhaps he should weight 'fun' by 7!

Key points:

Grid Analysis helps you to decide between several options, while taking many different factors into account.

To use the tool, lay out your options as rows on a table. Set up the columns to show your factors. Allocate weights to show the importance of each of these factors.

Score each choice for each factor using numbers from 0 (poor) to 3 (very good). Multiply each score by the weight of the factor, to show its contribution to the overall selection.

Finally add up the total scores for each option. Select the highest scoring option