

Project Selection

Delivering the *wrong* project on time and on budget with 100% of its scope completed to the defined quality standards is a complete waste of money!

Before value can be created by the traditional project management processes defined in the *PMBOK® Guide*, the project manager has to be given the right project to manage. But selecting the best of the ‘right projects’ to undertake within the constraints of the limited resources and funding available to any organisation is far from straightforward. This is the realm of Portfolio Management¹, but the decision making processes are far from simple or straightforward. Portfolio decision making processes are multi-dimensional and interdependent:

- **Multi-dimensional:** there are numerous factors that have to be balanced to determine the optimum choice.
- **Interdependent:** earlier decisions affect the choices available later.

The multi-dimensional aspects of project selection are reasonably well understood and can be modelled in a spreadsheet, some of the factors considered may include:

- Profitability ROI, BCR, NPV, etc.;
- Payback periods;
- Benefits realised;
- Strategic alignment (or more accurately contribution to achieving strategic objectives); and
- Resource availability (skills, equipment, capital).

Of all of these the project’s contribution to strategic objectives is the most important – the organisation needs to be focused on achieving its strategic objectives. The modelling process looks like this:

Project Selection Scoring Template											
		Project Candidates									
Strategic Priority	Weighting	Example Project	Name	Name	Name	Name	Name	Name	Name	Name	Name
Measure 1	0.5	5									
Measure 2	0.5	4									
Measure 3	0.5	3									
Measure 4	0.5	1									
Measure 5	0.5	5									
Measure 6	0.5	4									
Total		11	0	0	0	0	0	0	0	0	0

Interdependence is more complicated

Interdependence looks at the relationship between decisions and has many facets:

- **Enabler projects:** Some projects may score very low in a ‘scoring template’ similar to the one above, if considered in isolation, but if the project is not undertaken other high value and strategically important projects may be impossible to undertake effectively. An example is upgrading an operating system – the current system may be perfectly OK for the current applications used by the organisation, but incapable of supporting new ways of working. The value of the project is its ability to ‘enable’ other high value projects in the future.

¹ For more on **Portfolio Management** see:
http://www.mosaicprojects.com.au/WhitePapers/WP1017_Portfolios.pdf



- **Insurance projects:** These have little or no value in themselves (and you hope they are never tested) but they 'insure' the organisation against threats. Security upgrades are a typical example.
- **Associated and supporting projects:** These are the projects in 'other parts' of the organisation that have to be implemented to allow the full value of the benefits to be captured from the 'main project', particularly if it is very successful. One of the advantages of Program Management² is it allows these supporting projects to be managed in conjunction with the 'main project'.

Rigorous evaluation is required

It is far too easy to get carried away by a 'grand vision' or a dominant/charismatic leader. Big ideas need careful evaluations as the 'Virgin Lands' project from the 1950s demonstrates.....

In 1954, the production of wheat, meat and dairy in Soviet Union had plummeted to historic levels. Russia, a traditional exporter of grain, was forced to buy it from abroad. To reverse this situation, Nikita Khrushchev, the new Soviet leader commissioned the 'Virgin Lands Project'. The goal of the project, as worded by the Soviet Gosplan (Ministry of Planning), was to "harvest 20 million tons of grain by ploughing at least 43 million hectares of 'virgin lands' in several areas of the country including Kazakhstan."

The project has begun with an army of several hundred thousand volunteers, including students, soldiers and agricultural professionals; plus, 50,000 tractors and more than 6,000 trucks were moved to the area to assist the 'project team' in preparing and ploughing the vast areas of land. As a result of these preparations in the first year of the programme, 190,000 km² were ploughed; in 1955, an extra 140,000 km² were ploughed.

The 1956 was a year of great success for the 'Virgin Lands'; the original target of 20 million tons was more than tripled, with 60 million tons wheat being harvested. Unfortunately the government was not prepared for a harvest of such proportions. A lack of storage barns and harvesting equipment, and the Transportation Ministry having failed to reserve enough freight trains to move all of the grain to major cities led to immense losses.

The 'main project' at the centre of the 'virgin Lands' was successful in the short term but failed overall because critical factors including the weather and the need for erosion control were ignored. The grain produced was also significantly more expensive than grain from traditional farming areas. The value was further damaged by the failure of other entities within the overall scheme to be adequately prepared.

In the 1950s this failure may be understandable, in the 21st century we have program management to deal with the multiple interdependent aspects of the overall work and portfolio management to make sure the assumptions underpinning the vision are sound. Applying program and portfolio management is a management function – ensuring they are used, and used effectively by management is the role of governance.

The governance factors

Governance is critically important in all aspects of project selection³. Good governance is far more than just implementing systems and checks, it creating an organisation focused on achieving its objectives the 'right

² For more on **Program Management** see:

http://www.mosaicprojects.com.au/WhitePapers/WP1076_Program_Management.pdf

³ For more on the key role of **governance** see:

http://www.mosaicprojects.com.au/WhitePapers/WP1096_Six_Functions_Governance.pdf



way'. The governing body needs to create a management culture that is prepared to implement good processes.

In any 'simple scoring models' the system has to ensure the reliability of the data, take into account uncertainty and allow 'bad news' to be properly incorporated in the decision making process. More subjective processes need to ensure the subjectivity in the decision making is focused on the good of the organisation, not the ego of the decision maker, and all factors are properly considered.

The 'Virgin Lands' project discussed above ignored the known meteorological information that there was only a 40% chance of favourable weather conditions in Kazakhstan in any given year. Plus the risks and consequences of ploughing 'virgin land' were also ignored; as a result, after several years, due to lack of any measures to prevent erosion, much of the soil was simply blown away by the 95-mile-an-hour winds covering many nearby towns with dirt and dust to a depth of up to six feet. Incorporating these 'unpleasant facts' into the decision making processes would have led to the project being redesigned or scrapped. The primary mission of removing the need for grain imports to the USSR may have justified the additional costs (this is a subjective value-based judgement), but the project as implemented failed both its primary and any other objectives.

Governance does not sit in the place of portfolio management, these decisions are very much the responsibility of executive management, but it should ensure management focuses on making principled decisions based on the best available information.

Project Portfolio Management is the key

Project Portfolio Management (PPM) is defined as a methodology for analysing, selecting and collectively managing a group of current or proposed projects based on numerous key characteristics, while honouring constraints imposed by management or external real-world factors⁴.

The three key requirements that portfolio management professionals impose on every candidate project or program are:

- Each project as well as the portfolio of projects should maximize the value for the organisation.
- The candidate project should preserve the desired balance in the portfolio mix.
- The final portfolio of projects is strategically aligned and truly reflects the business's strategy.

The definition of "value" can vary from company to company and even from project to project but typically it includes certain economic measures (e.g. return on investment, net present value, and payback), competitive advantage, market attractiveness, expected sales, probability of success, etc.

The "balance requirement" ensures that the following situations are successfully avoided:

- Too many small projects and not enough breakthrough, visionary projects
- Too many short-term and not enough long-term strategic projects
- Certain business areas are receiving a disproportionate amount of resources
- Poor risk management (all eggs in one basket)

⁴ For more on **Portfolio Management** see:
http://www.mosaicprojects.com.au/WhitePapers/WP1017_Portfolios.pdf

Finally, the "fit to the strategic goals" requirement makes certain that company finances and other resources are not wasted on ventures outside of the organization's sphere of strategic interests. The simple fact is *executives do not go to shareholder meetings and cocktail parties to brag about what a professional group of project managers their organisation has. Their mission is to make more money or (in a non-profit organization) to achieve their specific goals.* They want to know if the mix of projects will maximize long-run growth and ROI for the firm, how these projects support strategic initiatives, and how they will affect the value of the company's stock.

Effective PPM is a key competitive advantage for every type of organisation (no one can afford to waste resources). The reason this matters is outlined below:

- The Project Management Institute found that in 2001 the US public and private sectors combined spend approximately \$2.3 trillion on projects every year. This represents some \$10 trillion worldwide being spent on projects.
- 84% of companies either do not conduct business cases for their projects or perform them on select key projects only.
- 89% of companies are flying blind with no metrics in place except for financial data.
- 84% of companies are unable to adjust and realign their budgets with their business needs

As a consequence there was close to \$1 trillion in underperforming projects in US as of 2001 and \$4 trillion worldwide – the situation has not improved much since! We will return to this theme in a future!

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