Resource allocation in your project portfolio – simulating towards an optimum

Palisade conference

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Introduction

Resource allocation in your project portfolio – simulating towards an optimum

Taking into account the demographic evolution in Europe, scarcity of resources will be a major challenge in the coming years. Combine it with the increased complexity of projects, requiring a variety of critical expertise, the search for the optimal allocation is on the agenda of each portfolio or resource manager. Whilst there is no miracle solution today, the impact of decision parameters on the outcome of the resource allocation simulation is demonstrated through simple examples in this presentation, allow better understanding for all stakeholders. A first step towards more intelligence in our resource allocation, more awareness at senior management level, and more efficiency in the execution of our portfolio?
Organizations will renew their focus on **talent development** as they look to grow and gain competitive advantage in new markets.

Tight economic conditions will continue to spotlight the need for **good project portfolio management**.

As organizations strive for **agility** in order to leverage shifting market conditions, **change management** and **project risk management** will become even more important core competencies.

**Benefits realization** will continue to be an important project and program success metric.
Components are described in the Portfolio Management Standard: “An activity or set of activities which is managed using the project portfolio management process, namely a business case, a project, a program, a portfolio, … or other work that fits into to ‘component definition’ of the organization.”
Another view

Strategic Portfolio Management

Optimise Investment Decisions

Operational Portfolio Management

Manage Resources Across Programs & Projects

Project Management

Obtain Repeatable & Consistent Project Delivery
Some observations in customer environments

- The interest in portfolio management is very strong.
  - Organizations want to improve the decision process for selection of projects, and want to get better control in the prioritization (strategic portfolio management).
  - The allocation of resources to the selected project portfolio is a major issue in all organizations (operational portfolio management).

- What **logic** is used to prioritize projects, in order to give them priority in the allocation of resources?

- As the usage of software in this domain increases, the included logic needs to be adopted by the users... and raises questions whether the logic is also the one used in the organization ....

- It is our conviction that building experience on small portfolios with limited amount of projects will allow further growth in maturity. Resource managers might become a key group of stakeholders...

- Let us try it out on a simple case ...
Our case

- **P1:** A project destined to realize **business growth** by opening new sales offices in a new geography (Singapore). The project has a medium investment cost, and a conservative benefit profile. Relative short duration. However, the project cannot start before March 2012, and should be operational no later than the end of 2012.

- **P2:** The second project is related to the **closure of 3 non-profitable offices** in Europe. Duration has been estimated at minimum one year, and there is in the company quiet some hesitation to push this project forward. Decision is not urgent, but project has a finish date constraint, related to office rent.

- **P3:** A third project has been put forward by the manufacturing unit in Poland, where a study on product **quality improvement** has been recently finished revealing a high potential in reduced cost of quality. The investment cost is relatively high, high benefits have been put forward, and the duration is at least 1½ years.

- **P4:** The ICT manager has put forward a request to approve the creation of a second site for **disaster recovery / business continuity** reasons. Project will take about one year, and there are major discussions ongoing on the estimated benefits, as they were calculated using a risk assessment. There is a deadline of end of 2013, put forward as a requirement by one of the most important customers.

- **P5:** The HR manager has looked at the competitiveness of **the remuneration system** in the company and comes up with a proposal to change the bonus system.

- **P6:** Finally, the **R&D** department has worked on an innovative study related to the replacement of production material.
Our case

- The small portfolio of 6 projects is prioritized against a set of business drivers using pairwise comparison (AHP) for the business driver weight (importance), and weighted scoring for the contribution of each project to each business driver.
- Our analysis is done on a 3-years window. All our projects should be finished in a 3 year window.
- What are our constraints:
  - an limit on (financial) resources in each year (expressed in Euro)
  - Constraints can be set on start (no earlier than) & end date (no later than) of each project
  - There is a minimum duration in the project & a maximum
  - A project might be “mandatory”
- What do we maximize using the “efficient frontier principle”?
  - Simulation 1: we maximize benefit realization, assuming however that the benefit only materializes after the project! The benefit profile is linear.
  - Simulation 2: we maximize strategic value
  - Simulation 3: we maximize the product of benefit & strategic value
Selecting the right projects
Strategic portfolio management – AHP & Weighted scoring

Pairwise comparison

Goal

New markets
Cost reduction
Cust satisfact.
Product Q

Asia
Europe

Project 1
Project 2
Project 3
Project 4
Project 5
Efficient frontier

Portfolio with 5 Projects A, B, C, D and E

Portfolio with 4 Projects A, B, C, D

Benefit of Project E

Cost of Project E

Funding Constraint
Operational portfolio management
The Challenge

Window of analysis

Project x

Start
Duration
Finish
Capacity (resources, investment)

today

For participant use only
The selection is different in the 3 simulations, that is not a surprise.

Which option is theoretically the best?

Which option is easiest to sell to senior management?

Which option is easiest to implement in the field?

And how to use?
Where to use?

Market
- Strategic Risk & Opportunity
  - Strategic Issue & Action

Strategy
- Vision
- Mission
- Value Proposition
- Goals

Program Management
- Benefit
- Change
  - Management Control Point (MCP)
  - Project
    - Project Objectives

Operations
- Yearly Objectives
- Budget
- Operational Work

Portfolio Management
- Component
- Evaluation Criteria
- Portfolio Category
- Reserve
- Portfolio

For participant use only
The usage of Palisade Evolver is helpful to start developing maturity in a more structured approach of resource allocation. The model is quite easy...

The acceptance by management of the rules applied in the simulation can be improved when the model is transparent and linked to their agenda.

We are convinced that the application should start in a limited context of scarce resource pools, instead of applying it to the full portfolio or total resource pool.

This introduces new stakeholders, line or resource managers, preferably with the support of portfolio managers (PMO).

Our preference goes to maximization of benefits for several reasons

- The link with program management is ensured
- The transparency is higher and there is an obvious link with the project business case, NPV/IRR (support by finance !)
- The maximization is done on a tangible parameter expressed in Euro, instead of a dimensionless parameter (%)

The model can be used at several levels in parallel (see next slide).

…. But the logic in current commercial portfolio management software is not in line !!!!