

beyond... the mbh newsletter

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Editors Comment

This mid-year/end of financial year edition will look at the evolving concept of program management. Where does program management fit into the overall philosophy of Managing by Project? Does it have a place or is it a competing theory to the four principled philosophy articulated by MBH? These questions and more will be answered in our first article below.

Our May article regarding NPV analysis and its general understanding across the business community has certainly created quite a stir. As too has our articles on option pricing gathered a swarm of questions and contrasting views. The debate hots up! Our second article will address one particular e-mail we received concerning option pricing and the query of why you would bother with it if you have to calculate the NPV as well.

A small milestone for the MBH newsletter, our subscription has hit 100 people!

Finally, don't miss next month's article on benefits management and its impact on the PMBoK.

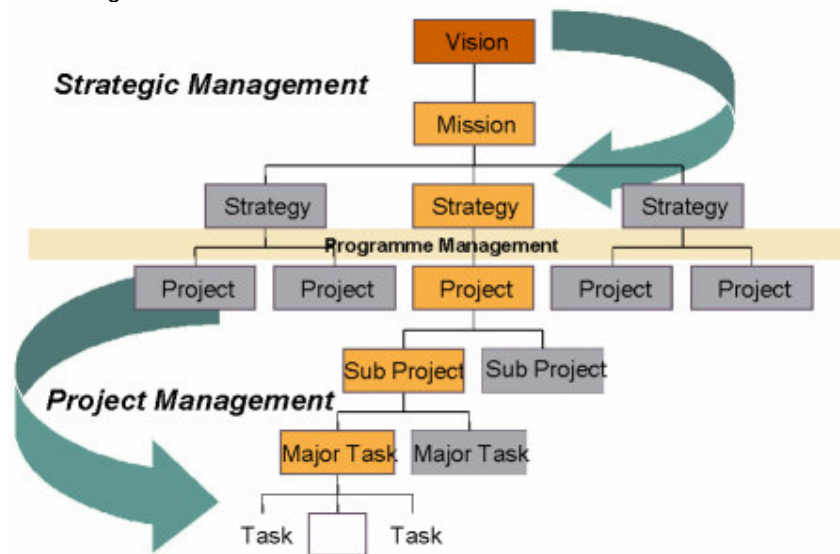
Article 1 - Program Management and Managing by Project

One of the interesting questions, or on some occasions statements we hear against our four principled approach to business management known as Managing by Project is that it doesn't take into consideration program management. "Where does program management sit?" is the common question, or "you're missing a layer in your methodology!" is a more direct response. Having looked at this for some months now, we have come to the conclusion that like many things short and to the point they are both right and wrong. It is true that there is no specific program management layer in the Managing by Project diagram represented below.



However, it is implicit in the alignment to strategy and the optimisation methods of project selection. It is impossible for a single project to achieve the corporate objectives represented in a 3 year KPI and its frameworked strategy. Program management is responsible for ensuring that the four principles are adopted by all resources that participate within each layer and within each principle (ie: the senior executive at the vision level, senior management and business unit managers at the strategy level, business analysts and project champions at the project selection level and the entire organisation at the project management level). It is the program offices role to ensure that the foundation four principles are understood as they apply to their particular organisation and more importantly that the pace of change is set to the right speed for people to handle.

Perhaps we could replace our "Business Case Writing" line in the above diagram with program management. Add strategic management and project management and you are left with a new diagram below. This may then reflect a limitation in the role of program management. That it exists outside of the role of strategic management and project management, when in fact it would only have the role of portfolio optimisation if this was the case. Perhaps, instead, a circle could be drawn around each strategic objective, encompassing the program with the projects that align to that particular strategy. Once again though, this fails to account for the horizontal optimisation of resources across an organisation as well as interdependencies that may exist between differing programs. I'm sure there is a diagram out there that would solve all these issues. And yet at the end of the day, what ever diagram was created , it would still be based on the underlying four principles of Managing by Project and not a fifth principle called program management. I guess, in a way program management and Managing by Project are synonymous. It's just that selling Managing by Project is hard enough if it is believed to be owned by the business (which it probably should be). Have it owned by a small office that sits outside all other business units and you are asking for trouble.



In summary, our view of program management sees the program office as having the following responsibilities:

Awareness

Awareness of both the portfolio of projects and the project methodology of the business falls upon the program office. This is essential for buy-in to the change program and for resources to be made available across the business for the cross functional projects that being implemented.

Project optimisation and stage gating

The program office optimises and presents the portfolio of projects as they are at any point in time. This takes into account the entire strategy of the business and the fact that each project would be at various stages of the lifecycle. As each project reaches the next phase or "Stage

Gate", its continuance is assessed against the optimal portfolio of projects at that point in time (with a heavy use of option pricing at this point).

Roles & Responsibilities

The roles and responsibilities of the project management community is maintained by the program office.

Mentoring

Increasing competency in Project Management across the business is the key to a successful Program Office. Skilling up and providing a career path for the project management community within an organisation ensures that the stars of the organisations are kept and that working on a project is not seen as a next step to retrenchment.

Project Review

Reviewing and documenting the success and failure of each project is necessary for increasing competence in projects and embedding the project culture. It also ensures that the methodology is constantly modified, that common problems that exist in one project don't occur in others and that knowledge management and knowledge transfer takes place.

Special Interest Groups

The Program Office can be the driving force in establishing special interest groups in areas of Project Management ranging from SDLC methodologies to risk management and valuation techniques.

However, when looking at all of these key areas that fall under the umbrella of program management, it is difficult to find how they are not key ingredients of the four principles that Managing by Project is founded on and not a fifth principle in itself. I'm sure we'll hear from our readers on whether we have convinced them or not!

Article 2 - More Option Pricing

We at MBH have been fascinated following the slowly increasing response from a diverse area of the business community to ours and other organisations use of option pricing when valuing real asset investment. Below is a quote from an e-mail received in our office recently which we will respond to in this article. The question came from someone who read the paper we prepared for the February Performance Management Symposium.

"I was particularly interested in the use of option pricing to determine the value of a future project for present project NPV calculations. In the case given in relation to Microsoft you have calculated the PV option price of the second project and added this to the NPV of the first. The value of the option being a positive value in which if the second project was not completed this value would then be lost. By including this into the NPV of the first project you are essentially buying the option of to complete the second project, this effectively is the loss made by the first if the second is not completed.

Does this not add a level of complexity to the calculation as you already have the information needed to calculate the NPV of the second project. For the purposes of capital budgeting and comparing possible projects under a constrained resource environment would it not be cleaner to calculate the NPV of both projects cash flows, treating them as one project."

The answer to the above letter can be summarised as follows. The option value calculated on the possibility to invest in a second phase of a project represents a call option. Its value is derived (hence the term derivatives) from the value of the underlying asset (ie: the sum of the cash flows of the second project). The estimated cost to invest in this second project is the exercise price. Hence the second project may at this moment in time be considered of negative value in NPV terms, but the option value positive. This positive value is derived from the time until an investment decision has to be made and the volatility of the underlying NPV estimation. An example of this is illustrated below:

A company is looking to invest \$1M in phase one of a CRM project. This phase of the project involves data quality and information architecture re-development. Hence the project has a negative NPV of \$250k. The second phase of the CRM strategy is to bring in workflow and portals for the customer service and sales team to utilise in servicing and selling to existing and potential customers. This second project has an expected cost of \$2M and a negative NPV of 0.5M. If we completed an analysis on both projects viewed as a single project, the total NPV would be -\$0.75M. How do we justify the selection of this project. The first step is to outline business risk issues with the existing system. Second step is to highlight the link to strategy of supporting the new customer and sales focus the business is undertaking linked to a more value chain approach to business processes. To achieve this strategy the business needs better IT systems and hence there is obvious value in heading down a CRM path. This is the qualitative argument, but how do you quantify this argument. This requires the use of option pricing and the requirement to break the "Program" of projects into their relevant phases for decision making and stage gating purposes.

Back to our financial analysis then. The first project is expected to be completed in 12 months. It is then expected to take another 6 months to get the second phase of the project to business case stage and in front of the board. Therefore, there is 18 months until a decision needs to be made on the second investment. The volatility of the second projects cash flows is at least 70%. This volatility can be measured by looking at best and worst case scenario's and simulating various combinations of them (a la Monte Carlo simulation style). This will give you a range of possible NPV outcomes and simple statistical sampling methods can then be used to measure the volatility or standard deviation of the second project. Once this is complete, the financial analyst has all the numbers required to calculate the call options value. The numbers for the calculation are outlined below:

Cost of Capital = 10%

PV of Exercise Price = \$1.73M ($2M/1.1^{1.5}$)

PV of Expected cash flows = \$1.3M ($1.5M/1.1^{1.5}$)

Time before investment decision is made = 1.5 years

Volatility = 70%

Call options value as a % of expected cash flows = 23.8% (From call option tables)

Therefore, value of call option = 23.8% x \$1.3M

= \$309k

We now add the \$309k call option value on phase 2 to the -\$250k NPV on phase 1 and we can see that the project has a positive value of \$59k. The key to this type of evaluation being successful is the benefits management of both projects. The project manager and their financial support should be re-calculating the NPV and option value of the two projects monthly. As more data becomes available, decisions can be made on abandoning or adjusting the scope of the first project as well as the possibility that the CRM program of projects is still a viable program as part of the strategy it supports.