

Portfolio Balancing and Project Selection in case of Alternative Ways to Achieve Strategic Goals^{1, 2}

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ABSTRACT

What if there are projects in the portfolio which represent different ways of achieving the same strategic goal? Run them both or choose one? Which one to choose? And how will this decision result in portfolio balancing and project selection? The article helps understand this problem and find answers to those questions.

INTRODUCTION

The largest and most successful companies plan their activities for several years ahead by creating a strategy. Strategy is a long-term plan for organization development with planning horizon of 1, 3 or 5 years, which implementation allows the company to move to a qualitatively new state. To control the achievement of the target state qualitative goals are usually converted into quantitative indicators using the SMART technique [2] or the balanced scorecard proposed by Norton and Kaplan [3].

Project is the main form of organizing activities aimed at achieving strategic goals. Majority of the projects form the company's strategic portfolio. It is important to note that each individual goal can be achieved in a different way. Consequently, the strategic portfolio may include projects that represent alternative ways for achieving strategic goals. Which way should be chosen? And how will the chosen way affect the results of portfolio balancing and project selection? In the sections below you will find answers to these and other important questions from the portfolio management point of view.

1. ALTERNATIVE PROJECTS SELECTION

The decision-making process on the choice of alternative projects may include the following steps [1, p.10]:

¹ This is a translation of the author's original article published in Russian in Project PRACTICE corporate blog, with the author's permission. URL (part 1): https://blog.pmppractice.ru/2017/03/02/balansirovka_portfelei/; URL (part 2): https://blog.pmppractice.ru/2017/03/02/balansirovka_portfelei-2/

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1. Identifying objectives.
2. Identifying options for achieving the objectives.
3. Identifying the criteria to be used to compare the options.
4. Analysis of the options.
5. Making choices.
6. Feedback.

The first two steps consist of setting strategic goals and defining a list of alternative projects aimed at achieving them. We are interested in the actions to be taken to make the choice among alternative projects.

1.1. Criteria identification

The problem of identifying criteria for comparing alternative projects in each case is solved individually. This situation is determined by the variety of activity areas where companies operate. Some criteria are applicable for projects of one company, different ones are suitable for another. However, a number of criteria can be formulated based on the characteristics of the project. Moreover, it is desirable that they are numerically measurable for subsequent analysis.

A project is limited in time and resources. This means that the selection criteria can be the duration of the project and its cost (in terms of separate resources in particular and budget in general). When assessing alternative projects according to these criteria, two types of estimates can be used - numerical and rating scale. The advantage of the first type is its accuracy. The disadvantage is the complexity of the calculation at the stage of project design and portfolio gathering. Rating scale estimates, on the contrary, are easier to define but because of this their accuracy suffers.

A project is being implemented under uncertain conditions. Consequently a variety of risk factors influence the choice - new technology utilized in the project, new product created in the project, organizational scope and geography of the project, etc. These factors, for the most cases, can also be expressed by numerical and rating scale estimates.

Examples of criteria and their estimates for comparing alternative projects aimed at achieving the same strategic goal are given in Table 1.

Table 1. Examples of criteria and their estimates for comparing alternative projects

Criterion	Numerical estimate	Rating scale estimate
Duration	9 months	1 – one year and more 2 – less than one year 3 – less than 6 months
Cost	1,5 million RUB	1 – 10 million RUB and more 2 – less than 10 million RUB 3 – less than 3 million RUB
New technology usage	-	1 – new technology is supposed to be used 2 – new technology is not to be used
New product development	-	1 – new product will be produced 2 – existing product will be developed
Organizational scope	20 employees	1 – is executed by employees of several organizations 2 – is executed by employees of one organization 3 – is executed by employees of one department
Geography of the project	2 cities	1 – is executed in several countries 2 – is executed in one country 3 – is executed in one city

When choosing alternatives, it is recommended to operate with the minimum set of criteria necessary for making a decision [1, p.33]. However, if we are talking about financially large or technologically complex solutions, their number can reach one hundred. In practice 6 to 20 criteria are used.

1.2. Option analysis

To compare the ways of achieving a strategic goal according to the selected criteria, it is convenient to form a performance matrix [1, p.21]. The rows of the matrix correspond to alternative projects, and the columns correspond to criteria for their comparison. The body of the matrix contains estimates - numerical or rating scale - of alternatives for each criterion. The estimates can be pre-weighted by criteria weights relative to one another.

There are many methods for comparing ways of achieving a strategic goal (methods of multi-criteria analysis), for example [1, pp. 24-28]:

1. Direct analysis of the performance matrix.
2. Multi-attribute utility theory.
3. Linear additive models.
4. Analytical hierarchy process.

5. Outranking methods.
6. Procedures that use qualitative data inputs.
7. MCA methods based on fuzzy sets.

The simplest and most frequently used method is considered to be the linear additive model. In accordance with it the estimates for each project are multiplied by criteria weights, and when the projects are sorted according to the resulting total estimates, they are summed up. The method is applicable in case of independence of the selected criteria.

Nevertheless, similarly to the criteria choice, the problem of choosing a method for comparing ways to achieve strategic goals is solved individually for each specific organization. In any case, regardless of the chosen method, the analysis should highlight one of the high priority projects or a list of projects for achieving the strategic goal sorted by priorities.

1.3. Decision making

Methods for comparing alternatives are designed to help decision-maker make the final choice in favor of one or another alternative. However, they cannot make this choice for him. There is always a set of factors that could not be formalized, but which can strongly influence the decision-making.

At this step, additional alternatives that were not included in the analysis can also be found. In this case a decision to evaluate new alternatives according to the selected criteria and to conduct re-analysis could be made.

1.4. Getting feedback

The decision to choose one of the many projects is made for each strategic goal, for which achievement several alternatives were formulated. Selected projects participate in portfolio balancing on a par with projects which there are no alternatives for. Despite the fact that the highest priority projects are transferred to the balancing process, the balancing result may be unsatisfactory in terms of achieving strategic goals. For example, as a result of balancing, the project execution time can be increased. Therefore the forecast of the strategic goal achievement will exceed the planned value, which is unacceptable for the company management. Such situations may require re-analysis of alternative projects and portfolio rebalancing.

2. PORTFOLIO BALANCING

The portfolio balancing process can include the following steps:

1. Project ranking.
2. Project alignment.
3. Project selection.

2.1. Project ranking

The strategic portfolio contains projects aimed at achieving the strategic goals of the company. Several alternatives can be identified for each purpose. As a result of the decision-making process of the most priority alternatives selection, the portfolio should contain a final list of projects that are required to implement the company's strategy. What order should these projects be launched under existing constraints?

Usually, there are logical relationships between the strategic goals of the organization that determine the sequence of their achievement. For example, a balanced scorecard [3] assumes the presence of four groups (perspectives) of goals in a company:

1. Financial.
2. Customer.
3. Internal Business.
4. Innovation and Learning.

The goals of the different groups are linked in the following way. To achieve the goals of the first group (financial goals), it is necessary to attract and retain customers. To achieve the goals of the second group, it is necessary to increase the productivity of personnel, the level of service, in one word, to improve the internal business processes of the organization. To achieve the goals of the third level, you need to constantly improve your competencies, introduce innovations, develop, that is to say, achieve the goals of the fourth group.

The most obvious approach to ordering projects in a strategic portfolio is to prioritize them according to the sequence in which the respective objectives are to be achieved - the sooner the objective is to be achieved, the higher is the priority of the project. The sequence can be defined by links between goals in a balanced scorecard. However, this approach has several disadvantages. First, the goals of the higher group can only be achieved after the goals of the lower group. Secondly, it is not clear in what order the goals of the same group should be achieved in the absence of links between them.

One of the indicators of a correct goal setting in accordance with the SMART technique [2] is its definiteness over time. Therefore, in order to avoid the lack of approach to ordering projects based on links between goals in a balanced scorecard, a timeframe for the achievement must be determined for each strategic goal.

It is important to note that in order to achieve a strategic goal, several interrelated projects can be provided in the portfolio (these projects are not alternative). In the process of ordering there can be uncertainties associated with the order of launching such projects, since they belong to the same goal and therefore have equal ranks. This uncertainty can be removed in the process of aligning projects with respect to the given constraints.

2.2. Project alignment

The ordered list of projects is aligned with the existing constraints. The most common ones are:

1. Limit on the number of projects to be launched in a given period of time (for example, a month).
2. Limit on payments that a company is able to make in a certain period of time.
3. Limit on the number of available specialists performing a specific role on a project (for example, the available number of project managers, analysts and developers per month).

By changing the start and end dates, duration, distribution of payments and workload of role resources at projects and stages of their life cycle, the person responsible for portfolio balancing seeks to build a schedule for the implementation of the project portfolio that satisfies the project constraints. Moreover, the starts of projects should be distributed in accordance with the priorities of the projects, determined as a result of ranking, in order to comply with the sequence of achieving the corresponding strategic goals (the term for achieving the strategic goal is also considered as a project constraint). However, according to the results of alignment, the projects ranks can be changed.

Alignment with respect to constraints can lead to changes in the parameters of projects, including the estimates of criteria for selecting alternatives. If the balancing result is unsatisfactory for the decision maker, the process of choosing alternatives is repeated for the changed project, after which the portfolio is rebalanced. Thus, the connection between the chosen ways for achieving strategic goals and the results of balancing the project portfolio is ensured.

It is also important to note that it is necessary to take into account the post-project monitoring stage for each project when aligning. At this stage, the achievement of the

declared benefits of the project should be monitored [4]. The introduction of an additional stage will allow predicting the timing for achieving each strategic goal of the company.

2.3. Project selection

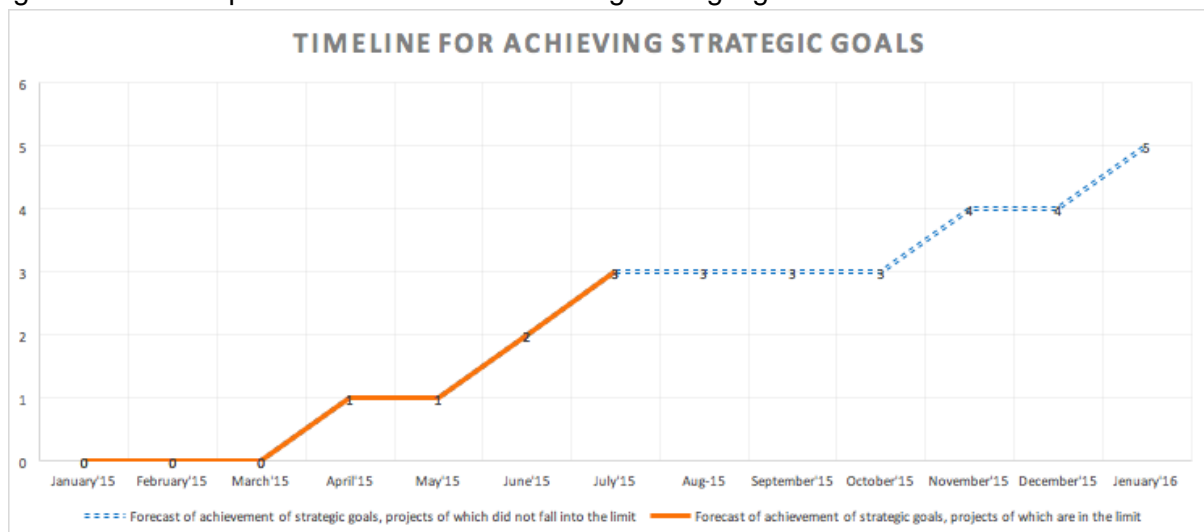
The project portfolio is usually planned for a year. The company's management annually allocates a budget limit for the implementation of the strategic portfolio. The selection of projects occurs by imposing a limit on the ordered list of projects.

Due to the fact that, as a result of ranking and alignment, predecessor projects are ranked higher than the related successor projects, the situation when successor projects are in the limit and predecessor projects are not is excluded.

Usually, the budget limit does not cover all projects in the portfolio. Thus, there is a selection of projects aimed at achieving the short-term strategic goals of the company.

An example of a schedule for achieving strategic goals, obtained from the results of portfolio balancing and project selection, is shown in Figure 1. The abscissa shows time periods of one month, the ordinate shows the ordinals of strategic goals. The solid line shows the schedule for achieving the goals, taking into account the specified limit. The dotted line indicates the schedule for achieving the goals, which projects did not fall into the limit. Such goals will not be achieved this year.

Figure 1. An example of a schedule for achieving strategic goals



CONCLUSION

The approach proposed in this article is recommended for use in the process of portfolio balancing and selection of projects aimed at achieving the strategic goals of the organization. It should be applied in case the company owns 1) a strategy with clearly defined terms for achieving each strategic goal; 2) projects aimed at achieving them.

The approach is to choose among alternative projects aimed at achieving each strategic goal the highest priority ones and their further use in the strategic portfolio balancing process. The choice of alternatives is carried out using the methods of multi-criteria analysis. The list of criteria and methods of their comparison depend on the field of activity of the organization. Setting of recommendations on their composition is the subject of a separate study.

Methods of multi-criteria analysis are not applicable when ranking projects, since the previous step excludes low-priority alternatives from the portfolio. Projects are ranked according to the period of achievement of the strategic goals of the organization (from early to late). Then the projects are aligned with other project constraints (the timing of achieving strategic goals is considered one of them). Imposing a budget limit on an ordered and aligned list of projects cuts off projects recommended for implementation within the current year.

The author hopes that the proposed approach will become a useful tool to support the decision of the head of the organization in which projects to invest in order to implement the company's strategy.

REFERENCES

1. Department for Communities and Local Government. Multi-criteria analysis: manual // Eland House. – January. – 2009. URL: http://eprints.lse.ac.uk/12761/1/Multi-criteria_Analysis.pdf.
2. Doran, G. T. (1981). "There's a S.M.A.R.T. way to write management's goals and objectives". Management Review. 70(11): 35–36. URL: <https://community.mis.temple.edu/mis0855002fall2015/files/2015/10/s.m.a.r.t-way-management-review.pdf>
3. Robert S. Kaplan, David P. Norton. The Balanced Scorecard – Measures that Drive Performance // Harvard Business Review. – January-February. – 1992. URL: <https://hbr.org/1992/01/the-balanced-scorecard-measures-that-drive-performance-2>.
4. Лобзов А.В. На что обратить внимание при балансировке портфеля и выборе проектов // Управление проектами и программами. – 2016. - №2. – С.138-143. URL: <https://qrebennikon.ru/article-29qq.html>

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