



INTERNATIONAL PROJECT MANAGEMENT

Training material

INCONEXT PROJECT

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V. Time, Resources, Cost and Quality Planning, Structuring of the Project

As it was mentioned before, the second phase of the project management life cycle is the so-called planning phase. Rough estimates and the work breakdown structure elaborated on during the initiating phase are being worked out in more detail in the planning phase. At the end of the planning phase the project management plan together with the identification of resources required for the implementation of the project are to be developed.

Apart from cultural differences, there are other characteristics of international projects relevant in the planning phase such as differences in the qualification levels of project staff, variety of labour laws and salaries, and variations in holiday requirements.

All the projects need to be delivered on time, within budget and to scope with a certain quality level. Some of the challenges are to minimize the project duration, the resource availability cost and to maximize quality.

The first area of planning related to the activities is to find out how much time the project will take. Project time management involves the processes required to ensure timely completion of a project. The optimisation of efficiency of a project fulfilment can be achieved through the minimization of the overall project duration. Time planning involves the estimation of the durations of all activities as well as the sequencing of project activities. The project manager and the team have to go through each activity identified in the Work Breakdown Structure in order to estimate how long the activity will take, and to evaluate the logic order and prioritization of those activities in order to come up with a plan at the end. The main planning tasks performed as part of project time management include activity definition, activity sequencing, activity resource estimation, duration estimation, and schedule development. The main documents produced as the result are an activity list and attributes, a milestone list, a network diagram, the activity resource requirements, the activity duration estimates, and a project schedule.

Time planning involves an estimation of the durations of activities as well as the sequencing of project activities. In order to plan activities in a time-efficient way, they need to be developed in a logic order. Under resource constraints, activities also need to be prioritized.

The activity duration is normally expressed in units such as working days, hours or weeks. The estimation of activity durations depends on the availability of resources. It is the decision and responsibility of the project manager whether to prioritize time, quality, or other resources depending on the project's scope and stakeholders' expectations.

The progress status of the project can not be determined without reference to both schedule and budget. The budget of the project should be based on the project schedule which in turn will be based on the Work Breakdown Structure. This helps to avoid major omissions which could result in cost overruns at the implementation phase. Key concepts in budgeting are expenditures, revenues and cash flow.

In international projects the project manager has to pay special attention to currency conversion rates which can fluctuate greatly over the time-span of a project. In this case the estimates in the budget for an exchange rate for a certain date should be used. An extra line should be added to the budget spreadsheet in order to follow up any changes and developments in the currencies involved.

Human resources and general resources like materials and equipment planning are also very important part of the scheduling process. Resource planning involves determining

what people, equipment and materials and what quantities of each should be used to perform people activities.

It is the project manager's responsibility that sufficient people are available to perform the tasks specified in the Work Breakdown Structure. Planning the staffing of a project involves the following main activities: (1) determining whether the team member are fully devoted to the project, and if not, how much dedication each member can show to given task. This task should include a self-assessment by each project member, and (2) if resources are overcommitted, it is responsibility of the project manager to re-schedule tasks, or/and re-prioritize tasks, or/and negotiate for additional time or resources, or/and reduce the scope of the project.

General resources might be a potential cause of issues for scheduling the international projects. As a rule, materials or equipment will need to be exported to international sites. The project manager needs to think about export codes and export licences and about export bans for certain countries which would cause major delays or even put the project on hold.

Quality is not restricted only to products or services. It also includes processes and people. Quality also needs to be planned, by checking the qualification level of staff, the appropriateness of specifications in the local context, and the accuracy of contractor selection.

Although planning is essential for international projects, different national cultures and religions perceive it differently. They may have a different attitude towards the impact that human plans can have. Cultural dimensions can affect the attitude of an individual regarding planning. Apart from religion and philosophy, planning is influenced by the physical environment. Plans only make sense in a predictable and transparent environment.

Organising an international project is another important part of planning phases. A suitable project structure has to be selected among the most frequent structures. The project's organization structure defines who reports to whom, and which processes, policies and systems will be applied. It determines the placement of power, responsibility and authority in an organization. Authority is defined as the power granted to individuals to enable them to take the final decisions. Responsibility refers to the obligation incurred by individuals in their roles in the formal organization to effectively perform assignments. An organizational structure is characterized by the following areas: specialization, shape, distribution of power and departmentalization. Unfortunately, there is no single structure which ideally combines those areas.

After that the project manager has to choose which mechanism should implement in order to co-ordinate the internal and external shareholders. For internal co-ordination of the project, the project office, steering committees, dual leadership can be used. For external co-ordination, the appropriate governance structure and the right contract form have to be selected. And the last step, the project manager has to plan for who will do the work outlined in the Work Breakdown Structure. The structure needs to be "filled" with people. The manager can create a responsibility matrix in which roles have to be clearly defined or design an Organization Breakdown Structure.

The nature of involvement of different people is best described in the responsibility matrix in the terms of letters in order to make the chart as self-explanatory as possible. Roles and responsibilities need to be clearly communicated to internal and external stakeholders as well.

An Organization Breakdown Structure gives an overview of the human resource requirements of a project. It indicates from which parts of the organization people will

come and shows whether the resources are internal, or whether external resources are required.

VI. Risk Analysis and Management

Projects, especially international ones, tend to operate in the uncertain environment. There is uncertainty regarding project funding, the availability of necessary resources, potential technical problems – the list can go on. This uncertainty is foundation for the project risk. A project risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on a project result.

As many international projects involve huge investments and are highly visible in the organization, risks need to be managed carefully. Risk management recognizes the chances of any project to run into trouble. Risk management is defined as a process of identifying, analyzing, and responding to risk factors throughout the existence of a project and in the best interests of its objectives. Project risk can be simply defined as any possible event that can negatively affect the project.

Risk management consists of anticipating, of unexpected situations at the beginning of the project that may arise and are beyond the project manager's control.

Risks that can be foreseeable usually arise from two main sources:

- Risk related to the management of international project or so called internal risk. This kind of risk is caused by the organization itself, either on a broad level, or on a project level. It can be the result of insufficient project planning, poor selection of team members and so on.
- Risk residing in the wider external project environment which is only controllable by stakeholders or other decision makers and is relatively predictable. This kind of risk could be caused by an increase in inflation in target markets, changes in the tax regime and so on.

Both sources mentioned above can also be the cause of unexpected or emergent risk. The unexpected risk arises from:

- Sources that are completely unforeseen, for instance natural disasters, political revolutions and so on.

In many multinational organizations, it is mandatory for major international projects to include a list of risks in the bid or project proposal. This is done in order to make sure that sufficient resources are factored into the bid or project proposal in light of potential risks. This means that risk management is a part of the project proposal in the initiating phase, usually in the form of a risk management plan which contains the methodology (tools and data sources used to perform risk management), risk categories, the roles and responsibilities of risk management, and the budget and time needed for unexpected problems.

Risk management is best performed as a team exercise with the help of tools such as a risk checklist, brainstorming and SWOT analysis.

Risk that is expected needs to be managed following the four key stages of the risk management cycle, namely, the identification of risks, analysis, responses, planning, monitoring and controlling of risks (Figure 4).

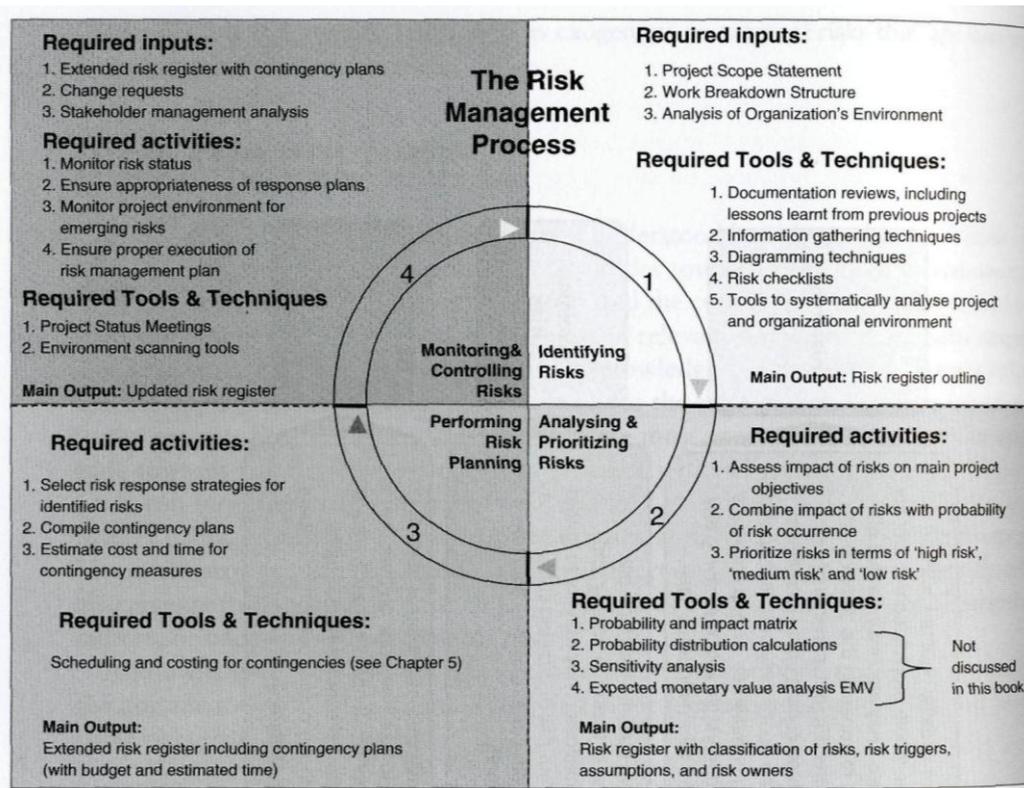


Figure 4. Risk management cycle
(source: Köster, K. 2010. International Project Management, p.102)

The objective of risk management is to prevent or minimize the negative aftermath of risks on the project and to benefit from opportunities.

- Risk identification – the process of determining the specific risk factors that can be expected to arise during the project. This process involves reviewing project documents and checklists, categorising risks. The result of the risk identification activities is so called risk register. It contains a list of identified risks, including their possible causes.
- Analysis of probability and consequences – the determination of how likely risk factors are to occur and what is the possible effect they might have. This process involves qualitative risk analysis. A ranking of risks is based on their impact on the project objectives and it is a part of the process. This is supplemented by a quantitative risk analysis focusing on the numerical evaluation of the likelihood and impact of risks. The whole process is based on assumptions and constraints which need to be revised on a regular basis.
- Performing risk planning – the process for carrying out the risk response or contingency plan. The identification and prioritization of risks only make sense if followed up by actions. During the risk planning it has to be decided what actions are necessary in order to reduce threats while maximizing the opportunities discovered in the risk analysis. Planning does not only refer to project planning but also to technical product planning. If risk cannot be avoided, how can an organization reduce risk impact?
- Controlling – the process includes monitoring of the status of risks as listed in the risk register, ensuring that risk response plans are appropriate, monitoring the project environment in order to detect emerging risk, ensuring the proper execution of the risk management plan. The risk register needs to be constantly cross-checked with the project status and current developments to find out which risks have occurred. If risk arises, the

risk owner needs to take certain action and inform all relevant stakeholders about the risk occurrence. Periodically, the status of action implementation needs to be reviewed. Risk occurrence will always influence the project management in terms of budget, time, quantity, and scope. Monitoring and controlling risks is closely linked to the project change management system.