White Paper 2015-08

How Some Contractual Terms Are Essential At Preventing Killer Project Risks

In general, it is well known that Contractual Terms and Conditions have a very significant role in the assignment and transferring opportunities and risks. The disciplined application of Contractual Principles is also essential to prevent major risks that could have a life-or-death effect on the project-driven organization. This aspect is sometimes misunderstood and overseen in the heat of contract negotiations. In this White Paper we take a hard look at those essential contractual clauses and how they will prevent major risks.

We generally hold true that risk is averaged and mutualized on a portfolio of Projects if these Projects are reasonably independent from each other. This is a consequence of the Central Limit Theorem which states that the sum of random outcomes from independent processes will always become more concentrated around the mean.

In Project portfolio management the first issue to tackle is ensuring a relative independence of the Projects in the portfolio even if it is unavoidable that there will be some dependencies e.g. regarding common resources used across projects (refer to our White Paper 2015-02 'Why Portfolio Level Opportunities and Risks Management is So Essential in Project-driven organizations').

The Overseen Effect of Long-Tailed Risks on portfolios

There is one additional underlying assumption which is worth noting, because it explains why well-managed Project-driven companies sometime die from a single Project gone extremely awry. The portfolio-level averaging property supposes that the outcome of each Project is a short-tailed probability distribution, i.e. a probabilistic distribution where outcomes significantly far off from the expected outcome have a probability that diminishes very fast with the distance from the median outcome. The Normal Distribution is such a distribution – it is very improbable to have an outcome further away from 3 standard deviations from the mean.

Keeping discipline on essential contractual principles (such as the limit of liability) is a must regarding risk management for the organization

In real life, most complex systems have an outcome which is a long-tailed outcome, i.e. the probability of an outcome significantly off from the expected outcome is not any more negligible. Portfolios with Projects which outcomes respond to long-tailed distributions will have a different behaviour: the outcome of one single Project significantly off from its expected outcome will dominate the others (refer to White Paper 2012-24 'The True Risk of Complex Projects: Teachings from Statistical Theory' and White Paper 2013-08 'Black Swan Statistics'). This means that the principle of averaging and mutualisation of risk does not hold with long-tailed probabilities of Project outcomes, even if these Projects are independent!

We thus need to ensure as much as possible that the Projects constituting our portfolio do not show a long tailed behaviour, which means, in practical terms, that the probability for these Projects to end up costing significantly more than expected must be extremely low.

This effect is actually a double whammy on the size of Projects: because the complexity of Projects tends to increase with size, and increased complexity creates long tailed outcome probabilities, this issue is particularly important for large Projects – which are generally already dominating the Project portfolios in terms of value.

How to Ensure That Projects Do Not Have a Long-Tailed Distribution

We thus need to ensure that there is almost no chance that a Project will finish up costing significantly more than what was expected, at least without compensation. Beyond the usual good practices of estimating, contingency calculation and inclusion, and Project execution, the key to this lies in the contractual terms that will be sealed between Owner and Contractor – so as to prevent a significantly adverse effect of unforeseen events.

The Owner perspective

From the Owner perspective, a main tool to limit exposure will be insurance (typically, Builder At Risk insurance) for direct consequences. Indirect and consequential costs (including delays in production) cannot be covered by this mechanism. The ultimate tool will thus be the ability to terminate a contract with the Contractor at any time, for convenience, to pull a stop on a situation that would develop uncontrollably. As an alternate solution, the Owner often reserves the possibility to substitute the Contractor in case of default (at the initial Contractor's cost) and even take over the control of the Contractor's failing Project.

The Contractor Perspective

From the Contractor perspective, the main tool to be used contractually is the overall limit of liability, which in theory will limit the exposure of the Contractor to a limited percentage of the contract value (there are often qualifications for such things as wilful misconduct and incompetence which might open some doors for claims). To complete this protection, in addition it is important that there is a clear waiver of liability for consequential damages on the Owner or its other Contractors. It is rare that the Contractor is allowed to terminate the contract

on his side – with a sound limit of liability, in the worst case, the Contractor can walk away at will if the project goes sour.

Summary

Only those contractual practices will allow both Owner and Contractor to stop a Project that would become uncontrollable due to reasons that could not be anticipated, before it exceeds too significantly the initially expected cost and/or duration.

Other contractual terms dealing with Force Majeure often triggered by Acts of God and other occurrence beyond reasonable control of the parties are also there to prevent unlimited consequences to a project.

The long-tailed behavior of project outcomes (when a project goes bad, it goes really bad) can kill an entire portfolio of projects.

Keep discipline on essential Contractual Principles

While most Project-driven organizations have contractual norms that follow the principles above, their importance is not always understood and when it comes to contractual negotiations, they are sometimes waived under the commercial pressure. Overall limits of liability (either expressed directly or through the addition of a number of similar mechanisms such as Liquidated Damages etc.) are absolutely essential at preventing significant departures into a tail-spin where losses appear unstoppable while the project cannot be completed for some reason.

While the exact amount of the acceptable limit of liability will depend on the size of the organization (thus might be larger in percentage terms for smaller projects), it is essential to maintain such a contract term, because at the end it is the survival of the organization that might be at stake. We have observed in some organizations that because the importance of these terms was sometimes insufficient, limits of liabilities or equivalent got waived too easily during negotiations.

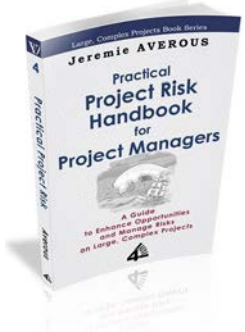
Summary

When it comes to the survival of the organization it is essential to prevent long-tailed risks, i.e. the possibility that a project goes very significantly beyond any reasonable limit in terms of losses and time spent. To achieve this, strong limits of liability are essential contractual terms that should not be waived for any reason. The risk might be considered remote but if it occurs it can destroy the organization. Be disciplined in applying the adequate contractual principles in that area!

Find all these principles of Project Opportunity and Risk exposed in a comprehensive manner in our new Handbook,

Practical Project Risk Handbook for Project Managers

(now published, available in Paperback and Kindle versions!)



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