Risk and Opportunities Management for Programmes and Projects: A Synopsis

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Purpose

The purpose of this document is to provide the reader with a synopsis of current thinking in the area of risk and opportunities management in programmes and projects. It forms part of a package delivered to EDS and the thinking described is reflected in the changes recommended to the principles of risk management used in the organisation.

Uncertainty and risk

During the last century, the concepts of risk and uncertainty have manifested themselves in various academic and practitioner domains. Much has been made of Frank H. Knight's [11] distinction between "risk" and "uncertainty" and his work on decision-making under uncertainty. From an academic perspective, researchers from economic, sociological and psychological schools have battled, but seem to have converged in recent times with general agreement on the nature of uncertainty and risk and the impact of these on decision-making. From a practitioner perspective, risk management permeates the worlds of strategy, finance, insurance, health, safety and environmental management, social policy and, of course, managed change through programmes and projects which is the focus of this discussion paper.

To understand risk, it is useful first to understand the nature of uncertainty. Some situations are uncertain because they are truly variable, for example, when throwing (unloaded) dice it is possible to calculate exactly the probability of achieving certain results. This is referred to in the literature as aleatoric uncertainty (or true variability), from alea - the Latin word for dice.

Other situations are uncertain because we do not know enough about the situation to make a rational assessment of the probability; this is the case with most of the uncertain situations affecting programmes and projects. For example, the chance that change in regulations will trigger a change in requirements that will mean that the current application needs significant modification cannot be determined using mathematics, only human judgement based on as good a knowledge as possible about the programme
context. This type of uncertainty is referred to in the literature as epistemic

uncertainty, from episteme - the Greek word for ambiguity.

So there are lots of uncertainties that exist but not all of them are relevant and need to be managed. We need to identify those uncertainties, that should they occur, would affect one or more project objectives [2]. This is the definition of a risk now adopted by all the mainstream methods, bodies of knowledge, national and international standards relating to risk management.

Using more simple language, a risk is an uncertainty that matters, and as a result there are two aspects of every risk we need to judge, namely the probability or chance of the uncertain event occurring, and the impact or consequence if it did. Based on these judgements, we decide whether to act to manage the event, or whether we take the chance.

In more recent literature [6; 7], risk is characterised as encompassing both threats and opportunities. Hil!son argues that "Risk is an umbrella term, with two varieties: "opportunity" which is a risk with positive effects; "threat" which is a risk with negative effects." Given the notion that risk has positive and negative effects on the project outcome it is often proposed to discriminate between risks as exposure to loss and opportunities as exposure to gains [B]. In this document, the term risk is used to embrace uncertainties with downside impact (threats) and uncertainties with upside impact (opportunities).

Objective/rational or subjective/irrational

Rave a direct impact on the ability of an organization to leverage organizational value from programme and project risk management. Barriers to effective programme and project risk management from a practitioner perspective are now starting to be researched by academia and this is a fertile ground for research if the perceived wisdom of risk management processes is to be transformed into tangible business benefit.

In summary though, 'best practice' risk management processes can be deconstructed into five major stages: planning, identification, analysis, response and management. Firstly, a project manager can apply risk management planning to define which activities should be taken to approach i

Useful resources

- Office of Government Commerce (OGC) — Managing successful programmes: http://www.ogc.gov.uk/guidance_managing_successful_projects.asp
- M o R : http://www.m-o-r.org/AboutM o R/WhatIsM o R.asp
- Office of Government Commerce (OGC) – Prince 2: http://www.ogc.gov.uk/methods_prince_2.asp
- Price Waterhouse Coopers (PWC): http://www.pwc.com/extweb/pwcpublications.nsf/docid/c11614bd4fbd7783852570180005f8b5b/$file/tilk-pmi-article.pdf
- Department for children, schools and families (DFES): http://www.dfes.gov.uk/ppm/index.cfm
- The Royal Society: http://www.rss.org.uk/main.asp?page=0
- British Standards Institution (BSI): http://www.bsi-global.com/en/Standards-and-Pu blications/Industry-Sectors/Bu ilding-and-Construction/BC-standards/BS-6079-32000/?recid=1047
- National Aeronautics and Space Administration (NASA): http://www.hq.nasa.gov/office/hqlibrary/ppm/ppm22.htm
- Risk analysis for projects (RAMP): http://www.ramprisk.com/homepage/index.asp

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