Tool 43-Risk And Value Analysis of IT/IS portfolio

1. Introduction

=>Several years of analysis in the IS industry had proven that the development of IS projects can be challenging and time consuming task "Chaos Report" in 1995, or the Robbins-Gioia survey in 2001",

=>Also a number of studies and surveys have been conducted in recent years that have highlighted problems and failures related to IT projects "PM world Today, June 2008".

=>Furthermore, IS/IT project development represents a big investment inside an organization (in 1995, the Standish group reported the average cost of development projects differs according to size). See Appendics(i)

2.What framework should be used ?

A four cycle method created by Salmela and Spil (International Journal of Information Management, 2002) will be used by integrating risk and value analysis .

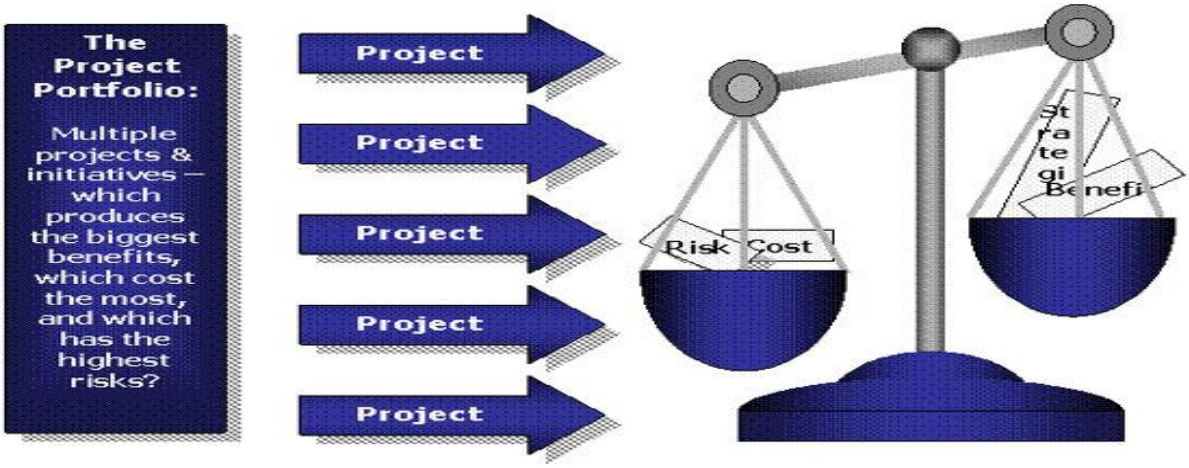

Figure 1. Risk vs value for the project portfolio

3.What are Risk Management, Assessment and analysis?

=>**Risk management** is the identification, assessment, and prioritization of risks (defined in ISO 31000 as *the effect of uncertainty on objectives*, whether positive or negative) followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events[or to maximize the realization of opportunities.

=>**Risk assessment** is the first process in the risk management methodology.

=>Organizations use risk assessment to determine the extent of the potential threat and the risk associated with an IT system .***Risk*** is a function of the ***likelihood*** of a given ***threat-source's*** exercising a particular potential ***vulnerability***, and the resulting ***impact*** of that adverse event on the organization.(Risk Management Guide for Information Technology Systems; Gary Stoneburner, Alice Goguen1, and Alexis Feringa ,July 2008)

On the other hand, risk mitigation; the next process in risk management *"involves prioritizing, evaluating, and implementing the appropriate risk-reducing controls recommended from the risk assessment process"* (Stone burner et al, 2002).

In this model, an authoritative list of common risk factors in information system development was identified and prioritized in a 2x2 matrix according to two different metrics:

* perceived level of control of the risk inside the organization and

*perceived relative importance of the risk

An alternate methodology, described by Stoneburner et al divides risk assessment in 9 steps, where only a few of them play a supportive role in the authorization phase.

Risk analysis could be conducted using several methodologies, such as:

- Failure Mode and Effect Analysis (FMEA),
- Fault Tree Analysis (FTA) or
- Benefit Cost Analysis (BCA, Gillen et al. 1999

4.0 Values:

IS/IT project development is a big investment =>an inherent return value for the resources spent by the organization such as:

- monetary assets,
- time and personnel.
- performance,
- efficiency and
- saving estimation, which makes the identification and analysis of the desired value features critical for project authorization.

Company size	Average cost
small	$2,322,000
medium	is $1,331,000
large	$434,000

Appendices: 1.1 average cost of projects