**Part One:**

**Overall Features of a Pump Approach to Project Risk Management**

In order to acquire a deeper comprehension about the details of project risk management, it is important to understand the basic meaning of risk in the process of project management. In its simplest terms, risk implies the extent of possibility of meeting harm, or suffering an unplanned loss in the course of managing a project. A simple understanding of risk implies that when formulating strategies for project management, it imperative to focus such strategies on how to minimize the possibilities of such risks occurring. It is a recognition of the fact that it is impossible avoid risks, but one can lay out workable strategies through which to reduce the chances of risk occurring in project management.

However, project management surveys have pointed to a common concern in project management ventures, in which project managers ignore the inherent risks that are likely to face their projects. There are also cases where project managers ignore such risks, despite having adequate knowledge on the high possibilities of such risks occurring. In this case, it is important to note that in cases where a project manager has knowledge on the possibility of a risk occurring, they should formulate strategies that help to abolish constraints as well as reduce ambiguities. Under circumstances of reduced ambiguities and abolished constraints, it is possible for project managers to reduce the chances of risk occurrence to acceptable levels. Projects that have acceptable levels of chances of risk occurrence have higher prospects of success.

One of the ways of reducing the chances of risk occurrence through abolishing constraints and ambiguities, involves laying more focus on the management of uncertainties, other than managing the actual risks. The underlying concept in this is that while managing uncertainties, there are higher chances that the project is still in safer stages where the potential effects of such uncertainties remain manageable, often with mild effects if any. It is also possible to assume that this principle in project management is a further affirmation of the common saying that prevention is better than cure. For instance, when project management strategies have to focus more on the management of potential risks, there are higher chances that such risks may have occurred. Moreover, the effects of such risks on the project may be too costly, making their prevention a more affordable venture.

Chapman and Ward (2011) write on the significance of any project undertaking, with reference to their contribution to delivering change to humanity. According to the authors, project involve planning and execution of various strategies that would help in delivering a desired change to humanity. For example, the desired effects in this case may be the creation of improvement of a given physical asset, or a tangible change in the operations of an organization. Regardless of the nature of the desired effect of the project management course, there is a pursuit of various opportunities, which forms the central objective.

In project management, it is most often difficult to ascertain particular outcomes. Project managers may remain open minded as to expect risks, opportunities, profits, among other riskier outcomes such as termination. The resulting uncertainties in project management requires that the project management team to develop workable strategies to manage the difficulties arising from the ventures, as well as predict the nature and future of the project. Chapman and Ward (2011) have proposed the strategies of uncertainty management as opposed to the traditional risk management as a way of helping many project managers. This approach outlines seven stages of phases of the project during which the project management can apply the PUMP approach.

The application of Chapman and Ward’s (2011) approach to the management of various risks in projects can help organizations trap more opportunities resulting from the project. When the management process captures various available opportunities in the complex face of risks and uncertainties of the project, they tend to reduce the possibilities of ambiguity, as well as reduce overall losses based on reducible risks. According to Chapman and Ward’s (2011), organizations have basic principles of success that they have to adopt for implementation, as a way of developing successful strategies for project management. One of the basic principles involves the development and adoption of formal processes, based on clear structures of operations, which act as a guiding path for the project stakeholders.

Generally, the PUMP approach develops a structure that helps project managers in the process of clarifying different types of uncertainties as they occur in the course of project management. In addition to the uncertainties, the PUMP approach also helps in the process of identifying and clarifying the possibility of risks and opportunities in all types of projects, regardless of the nature of the organization in which such a project occurs. The introduction of the PUMP process rendered a revolution in which project managers acquired an effective tool through which they can manage all sorts of uncertainty in various frameworks and processes.

In this approach, there are major parts of the overall lifecycle of the project. The first stage of the seven stages of the PUMP application process begins with the inception and development of an idea of a project. At this initial stage of idea development, there is a bottom-up process for the operation needs, alongside a top-down strategy for the corporate management activities. Both the bottom-up and the top-down approaches occur at the end of the first stage, which helps to link with the second stage of the project management.

There is a planning stage, which involves a process of raising all possible questions regarding the management of the project, its possible outcomes among other strategies. It gives all the stakeholders of the project an opportunity to seek possible clarifications about the project, as a way of establishing and affirming their concerns, reservations and affirmations on the possibility of running the project.

PUMP versus PMI PIMBOK: The PMI PIMBOK in comparison to the PUMP approach consists of four stages, initiating, planning, executing, and closing which is further divided. The PIMBOK approach is more a generalized risk management approach in comparison. It takes into consideration budgeting, risk category, probability, stakeholders view. It focuses on, threat and opportunities, exploitation of the possibilities, probability enhancement, contingency plans. It identifies the risk, uses quantitative and qualitative approach to the analysis of risk and prepares appropriate responses.

It is more focused on risk management rather than uncertainty management; it fails to consider the seven W ‟s (Hillson and Raz, 2005). It does not give the freedom to modify the project as compared to the focus phase of the PUMP approach (Chapman and Ward, 2011). It uses the quantitative approach but it is not linked correctly to the qualitative analysis. Part B: Most project management activities are concerned with managing uncertainties from the start of the project i.e. the Concept shaping stage (Chapman and Ward, 2003).

The planning for development of a new project, for example in an Insurance company the marketing team would communicate the challenges faced for selling a product and what are the needs of the people. This could help to develop a new product. This phase is bottom up approach where specific departments communicate new project ideas or business development proposals to the board. These innovative combinations of the goods and services constitute organization’s competitive advantage (Perminova et al., 2008).

**Section Two**

The features of PUMP approach in the Execution and Delivery strategy are shaping stage. In the project lifecycle stages to reveal uncertainty by objectives, shareholders and other aspects it is important to consider the seven W ‟s framework consisting of who, why, what, which way, wherewithal, when and where. Using these in all phases can help to reveal uncertainties like ambiguity uncertainty, inherent variability, event uncertainty and systemic uncertainty (Chapman and Ward, 2011).

In the execution and delivery strategy shaping stage the importance of this framework shifts to a “who -why-what” trio which helps the E and D strategy developing stage to manage uncertainties (Chapman and Ward, 2011). The PUMP approach introduced by Chapman and Ward consists of seven phases: The first phase “Define the Project” defines the project by collecting existing relevant information of the project. This involves identifying h the objectives, interests and motives of the project. This helps to analyze the project in the E and D strategy shaping stage in the lifecycle. The first phase involves the consideration of the seven W ‟s and how they relate to the project. This step is important as it shares information about the project which is suitable for the rest of the PUMP process.

The second phase “Focus the Process” creates a platform to analyze the project in the E and D strategy shaping stage of the project lifecycle which was initiated in the first phase. It creates a strategic plan to meet the long-term goals of the project and also the needs of this project lifecycle stage.The complexities involved in the analysis are under good in this phase. It is the stage where planning starts; it is based on assumptions concerning the define phase which helps to shape all remaining phases.

The consideration of the seven W ‟s plays is important to determine uncertainties in this phase. The third step “Identify all the relevant sources of uncertainty, response options and conditions” helps in the identification of the sources of uncertainties. It treats the uncertainties both in quantitative and qualitative form to measure its occurrence or happenings. It is mostly based on assumptions but it creates an atmosphere for a future vision by tapping all possible uncertainties. It makes it possible for managers to estimate the opportunities s and threats.

This phase creates a platform for the next phase which structures all the uncertainties captured. The fourth stage “Structure all uncertainty” helps to have a better understanding of the sources of uncertainty. It contributes to understanding the implications of the uncertainties in a more particular manner by identifying the links and causes of uncertainty. It is helpful because it may help to prepare effective contingency plans to manage opportunities and threats. The fifth phase “Clarify ownership” phase takes responsibilities for managing legal and financial issues.

It delegates the responsibilities of managing risks and uncertainties to the people involved in the project. It divides the distinguished uncertainties identified, to the owners and also to the clients. It is important for this phase to consider all the seven W ‟s thoroughly. It is a crucial period as the parties involved in the project are clear about the risks and uncertainties each of them have to manage. It is division and transferring of risks.

The sixth phase “Quantify some uncertainty” estimates the probability of the uncertainties captured earlier. This estimated quantification helps to reveal the costs, timescale, opportunities which lie behind the project. It helps the organisation to decide whether the project is apt regarding growth and opportunity. This phase helps to number the uncertainties according to its probability of occurrence. It gives a chance to the parties involved to unfold certain aspects of the project with an underlying measure of the uncertainties.

The seventh phase “Evaluate all relevant implications” is the evaluation of all the findings, decisions, captured uncertainties from all the phases of the PUMP approach. This phase gives the management team to go back and see whether the uncertainties which were not quantified should be taken into consideration. Decisions can be made after interpretation and evaluation of all the uncertainties. One important feature of this phase is that it enables the use of sensitivity diagrams and cumulative probability to capture all the opportunities.

**Section 3**