

## **Project Management Terms and References:**

**Performance Indexes** - Project planning and status indicators that periodically measure variances (usually cost and schedule) and require documented corrective actions to eliminate the variances that exceed predetermined thresholds.

**Risk Mitigation** - is a risk response planning technique associated with threats that seeks to reduce the probability of occurrence or impact of a risk to below an acceptable threshold.

**Rolling Wave Planning** - Cost and schedule planning where details are developed for the near term and general allocations are made for the out periods. Detail is developed for the out periods as information becomes available to do so.

**Scope Verification** - is the process of obtaining the stakeholders' formal acceptance of the completed project scope and associated deliverables. Verifying the project scope includes reviewing deliverables to ensure that each is completed satisfactorily. If the project is terminated early, the project scope verification process should establish and document the level and extent of completion.

**Communication Management Plan** - a document that describes: the communications needs and expectations for the project; how and in what format information will be communicated; when and where each communication will be made; and who is responsible for providing each type of communication. A communication management plan can be formal or informal, highly detailed or broadly framed, based on the requirements of the project stakeholders. The communication management plan is contained in, or is a subsidiary plan of, the project management plan.

**Collaborating** - is an effective technique for managing conflict when a project is too important to be compromised. It involves incorporating multiple ideas and viewpoints from people with different perspectives and offers a good opportunity to learn from others. It provides a long-term resolution.

**Quality Audit** - A systematic and independent examination to determine whether quality activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives.

**Risk Response Planning** - is the process of developing options, and determining actions to enhance opportunities and reduce threats to the project's objectives. It follows the Qualitative Risk Analysis and Quantitative Risk Analysis processes. It includes the identification and assignment of one or more persons (the "risk response owner") to take responsibility for each agreed-to and funded risk response. Risk Response Planning addresses the risks by their priority, inserting resources and activities into the budget, schedule, and project management plan, as needed.

**Pareto Diagrams** - are histograms, ordered by frequency of occurrence, that show how many results were generated by type or category of identified cause. The project team should take action to fix the problems that are causing the greatest number of defects first. Pareto diagrams are conceptually related to Pareto's Law, which holds that a relatively small number of causes will typically produce a large majority of the problems or defects.

**Risk Identification** - is an iterative process because new risks may become known as the project progresses through its life cycle. The frequency of iteration and who participates in each cycle will vary from case to case. The project team should be involved in the process so that they can develop and maintain a sense of ownership of, and responsibility for, the risks and associated risk response actions.

**Quality Management** - is a method for ensuring that all the activities necessary to design, develop and implement a product or service are effective and efficient with respect to the system and its performance. Quality management can be considered to have three main components: quality control, quality assurance and quality improvement. Quality management is focused not only on product quality, but also the means to achieve it. Quality management therefore uses quality assurance and control of processes as well as products to achieve more consistent quality. Quality Management is all activities of the overall management function that determine the quality policy, objectives and responsibilities and implement them by means such as quality control and quality improvements within a quality system.

**Risk Transference** -requires shifting the negative impact of a threat, along with ownership of the response, to a third party. Transferring the risk simply gives another party responsibility for its management; it does not eliminate it. Transferring liability for risk is most effective in dealing with financial risk exposure. Risk transference nearly always involves payment of a risk premium to the party taking on the risk. Transference tools can be quite diverse and include, but are not limited to, the use of insurance, performance bonds, warranties, guarantees, etc. Contracts may be used to transfer liability for specified risks to another party. In many cases, use of a cost-type contract may transfer the cost risk to the buyer, while a fixed-price contract may transfer risk to the seller, if the project's design is stable.

**Design of Experiments** - is a statistical method that helps identify which factors might influence specific variables and is applied most often to the product of the project (for example, automotive designers may wish to determine which combination of suspension and tires will produce the most desirable ride characteristics at a reasonable cost.) It can also be applied to project management issues such as cost and schedule tradeoffs. Example: senior engineers will cost more than junior engineers but will usually complete the assignment in less time. An appropriately designed experiment which computes project costs and duration for various combinations of senior and junior engineers will often yield an optimal solution from a relatively limited number of cases.

**Contract Closeout** - Contract closeout activities which assure that the contractor has fulfilled all contractual obligations and has released all claims and liens in connection with work performed.

**Change Control System** - a collection of formal documented procedures that define how project deliverables and documentation will be controlled, changed, and approved. In most application areas the change control system is a subset of the configuration management system.

**Triangular Distribution** - is used only when we know the minimum, maximum and most likely values. It leads to a less conservative estimate of uncertainty. The triangular distribution is useful for stochastic modelling rather than statistical analysis because of its artificial nature. Distribution Formula:  $\text{Probability (cost < most likely)} = (\text{most likely} - \text{min}) \div (\text{max} - \text{min})$ .

**Matrix Organization** - A combination of the advantages of the pure functional (traditional) structure and the product organizational structure. The project manager has total responsibility and accountability for project success; functional managers provide technical and business assistance to the project manager from outside the project management office.

**Expectancy Theory** - holds that people will tend to be highly productive and motivated if the following two conditions are satisfied: (1) people believe that their efforts will likely lead to successful results and (2) those people also believe they will be rewarded for their success. Expectancy theory says two things. One, you get what you expect-self-fulfilling prophecy. The other is, if people think that their outcomes are going to be significant, if they think they are going to matter in terms of the organization and then they do better. People like to be involved in something where they think they are making a difference.

**Quality Assurance** - is all the planned and systematic activities implemented within the quality system to provide confidence that the project will satisfy the relevant quality standards.

**Lessons Learned** - are documents that offer historical information. The learning gained from the process of performing the project. Lessons learned may be identified at any point. Also considered a project record, to be included in the lessons learned knowledge base.