Chapter 2: Conceptualizing and Initializing the IT Project

TEACHING STRATEGIES

The goal of this chapter is to give the students a basic overview of planning and managing IT projects. The details will follow throughout the book and the course.

Two important concepts provide a focal point for the remainder of the course. First, the notion of an IT project methodology is introduced. I like to show my students how the ITPM follows not only a natural progression of project stages and activities, but mirrors the syllabus for the course. Moreover, the ITPM that they will learn and follow throughout the course is a generic methodology that will evolve over time as the student and their organization gains experience, learns from those experiences, and then integrates those experiences in their methodology. As a result, two organizations, say a group of consultants and a manufacturing company, should end up with two very different methodologies that fit the types of projects they take on based on their competitive strategy, their culture and their capabilities.

The second important concept introduced in this chapter is the idea of Measurable Organizational Value or the MOV. This is an important concept that becomes integrated throughout the book as well as the project processes and decisions. The idea of the MOV evolved as I taught project management. Most material on project management (in other books and articles) dictates that a project must have a goal. Often, however, the idea of a project having a goal is left as that – a project must have a goal – with little insight as to what that goal should be or how it should be defined. On the other hand, many authors of books and articles tend to focus on schedule and budget being the primary goal of projects – i.e., the goal of the project should be to spend no more than a certain amount and have the project completed by a certain date. Adding to the confusion is the notion that the terms goal and objective are often used interchangeably. In teaching a project management course early on, I found that my students (and I) were confused and needed some direction. The easiest solution

seemed to be to define our terms. As a result, I came up with the idea that a project should have a goal (provide value to an organization and become a measure of success) whereas a set of defined objectives (scope, schedule, budget, and quality) should support that goal. This then lead to the development of a process for defining the project's goal or MOV.

Defining the project's MOV can be a difficult task because it is easier to focus on tasks or activities. As an example, I like to ask my class whether installing a computer network is a project or an activity. Many will say it is a project. However, I like to point out that installing a network is a means to an end for an organization. Installing a network denotes an action (and probably a series of sub-tasks or activities), but why would an organization invest the time, resources, and money to install a network in the first place? The usual answers that follow generally include such things as improved communication, increased customer service, reduced paper costs if the network is used as an intranet, and so forth. This leads to an idea that we do not invest in technology for technology's sake. We invest in technology to help provide value to an organization so that it can do something to improve effectiveness, increase efficiency, decrease costs, or grow the business. This value can be succinctly described as doing something better, faster, cheaper, or doing more of something. This value along with several alternatives should be summarized in a business case that serves as a business proposal.

I've also found from experience that the beginning of a project is much like wandering in a thick fog. In both situations, people tend to look for and pick a direction that they believe will get them where they want to go. Definition of a project's MOV and development of the business case provide a project management compass and process for helping to improve the chances that we pick the right direction. Being lost can be a disconcerting feeling, but having the right tools and set of processes in place (as defined in our methodology) can help us be more confident.

TEACHING CHAPTER 2 IN A NUTSHELL

- A methodology provides a framework for initiating, planning, carrying out, closing, and evaluating the IT project. The ITPM introduced in chapter 2 is generic project methodology that integrates the project life cycle, systems development life cycle and project management body of knowledge areas so that a set of phases, processes and tools are defined. This allows the methodology to adapt to and align with a particular organization's culture, industry, strategy, etc. over time.

- The phases and infrastructure of the ITPM provide a logical sequence for planning and managing an IT project. A methodology provides structure, but must be flexible enough to fit or adapt to unique situations.

- Developing an MOV may not be an easy task, but it is well worth doing because it sets the direction for the project and provides a measure of success for the organization later on. The MOV can be developed using a statement or table format, but this does not mean people cannot be creative in terms of how the MOV is presented. In judging whether an MOV is defined correctly, one should focus on whether the MOV is:

    - Metric based (Is it quantifiable?)

    - Clear, focused, and understandable (Will this confuse the project's stakeholders?)

    - Technology independent (This is not about the technology. Choosing a platform, vendor specific relational database management system, operating system, or programming language is not important at this point of the project).

    - Separate from project objectives (While objectives such as budget and schedule are important, they are not sufficient conditions for success.) There is nothing wrong with listing project objectives separately.

    - Able to provide a measure of success within a time frame after the project is completed. (Will we be able to tell whether the project was a success at some point after the system is implemented?)

- The business case acts as an investment proposal. Development of a business case can be a tradeoff. We often have a limited amount of time and resources available to analyze the organization's needs, as well as specific alternatives, but we must be confident that we have sufficient information to make a well-informed decision – i.e., fund or not fund the next stage of the project.

- A number of tools and approaches are available for analyzing the various project alternatives. I tell my students that even though they have not chosen accounting or finance as their major, they will still need to communicate intelligently with the accounting and financial people throughout their careers. Therefore, they should have a good understanding of the different financial and quantitative tools that they will use.

- Project selection is an important organizational decision. We want to fund or take on projects that provide the most value to the organization, while blocking projects that will only drain the organization of valuable time and resources. Although organizations can make this decision any number of ways, the balance scorecard approach is becoming increasingly popular so students should be aware of its existence and understand how it works.

REVIEW QUESTIONS

1. Describe the project life cycle.

- The project life cycle (PLC) is a collection of logical stages or phases that maps the life of a project from its beginning to its end. Each phase should provide one or more deliverables.

2. What are phase exits, stage gates, and kill points? What purpose do they serve?

- Projects should be broken up into phases to make the project more manageable and to reduce risk. Phase exits, stage gates, or kill points are the review of key deliverables that allow the organization to evaluate the project's performance and to take immediate action to correct any errors or problems. These reviews take place at the end of each logical stage or phase to verify completion and determine whether to proceed to the next phase of the project.

3. What is fast tracking? When should fast tracking be used? When is fast tracking not appropriate?

- Fast tracking is starting the next phase of the project before approval is obtained for the

completion of the current phase of the project. The purpose of this is to reduce the project's schedule. Overlapping of phases can be risky and should only be done when the risk to the project is deemed acceptable.

4. Describe the systems development life cycle (SDLC).

- The Systems Development Life Cycle (SDLC) represents the sequential phases or stages an information system follows throughout its useful life. The SDLC is comprise of the following five phases: (1) planning, (2) analysis, (3) design, (4) implementation, (5) maintenance and support.
    - Planning. The planning stage involves identifying and responding to a problem or opportunity and incorporates the project management and system development processes and activities. Here a formal planning process ensures that the goal, scope, budget, schedule, technology, and system development processes, methods, and tools are in place.
    - Analysis. The analysis phase investigates the problem or opportunity more fully. The specific needs and requirements for the new system are identified and documented during this phase.
    - Design. During the design phase, the project team uses the requirements and "to be" logical models created during the Analysis phase as input for designing the architecture to support the new information system. This architecture includes the network design, hardware configuration, databases, user interface, and application programs.
    - Implementation. Implementation is the development or construction of the system, testing of the system, and installation. Training, support, and documentation must also be in place.
    - Maintenance and Support. This phase involves the ongoing support for the system. Changes to the system, in the form of maintenance and enhancements, are often requested to fix any discovered errors (i.e., bugs) within the system, to add any features that were not incorporated into the original design, or to adjust to a changing business environment.

5. What are the advantages of having and following a project methodology?

- Methodologies provide the project team with a game plan for implementing the project and product life cycles so that the team can focus on the tasks at hand, instead of always worrying about what they are supposed to do next.
- A methodology provides a common language that allows the project team, project sponsor, and others within the organization to communicate more effectively.
- A standardized methodology allows management to compare different projects more objectively which in turn will allow management to make better-informed and more objective decisions with

respect to which projects get selected and whether funding should continue to support a particular project.

6. Describe the five phases of the IT project methodology.

- Phase 1: Conceptualize and Initialize: This phase focuses on defining the overall goal of the project. Alternatives that would allow the organization to meet its goal are then identified. Next, the costs and benefits, as well as feasibility and risk, of each alternative are analyzed. Based upon these analyses, a specific alternative is recommended for funding. Finally, the project's goal and the analysis of alternatives that support the goal are summarized in a deliverable called the business case.

- Phase 2: Develop the Project Charter and Detailed Project Plan: The project charter is a key deliverable for the second phase. The project charter clarifies the project's goal and defines the project's objectives in terms of scope, schedule, budget, and quality standards. In addition, the project charter identifies and gives authority to a project manager to begin carrying out the processes and tasks associated with SDLC. The project plan provides all the tactical details concerning who will carry out the project work and when. Additionally, the project's scope, schedule, budget, and quality objectives are defined in detail.

- Phase 3: Execute and Control the Project: focuses on execution and control—carrying out the project plan in order to deliver the IT product and managing the project's processes in order to achieve the project's goal. During this phase the project team uses a particular approach and set of systems analysis and design tools for implementing the systems development life cycle (SDLC). In addition, the project manager must ensure that the environment and infrastructure support the project.

- Phase 4: Close Project: After the information system has been developed, tested, and installed, a formal acceptance should transfer control from the project team to the client or project sponsor. The project team should prepare a final project report and presentation to document and verify that all the project deliverables have been completed as defined in the project's scope.

- Phase 5: Evaluate Project Success: this phase focuses on evaluating four areas:

    - First, a "postmortem," or final project review, should be conducted by the project manager and team.

    - Second, an evaluation between the project manager and the individual project team members is conducted.

    - Third, an outside third party should review the project, the project manager, and project team.

    - Fourth, the project must be evaluated in order to determine whether the project provided value to the organization.

7. Why is it important to have deliverables for each phase of the IT project methodology?

Deliverables are tangible product of the work completed in a phase and serve to define the work and resources needed for each phase.

8. How can the experiences of and lessons learned by past project team members be incorporated into a project methodology?

The experiences of and lessons learned by past project team members be incorporated into a project methodology by the developing a set of best practices that fit the organization and the projects it undertakes. The creation of a project management office affords a means for studying the company's IT projects which can provide a basis for estimating and conducting reality checks for projects. Lessons learned and best practices should be documented in Phase 5 (Evaluate Project Success) of the project methodology and then added to the organization's institutional practices.

9. Describe the "conceptualize and initialize phase" of the IT project methodology.

This phase focuses on defining the overall goal of the project. Alternatives that would allow the organization to meet its goal are then identified. Next, the costs and benefits, as well as feasibility and risk, of each alternative are analyzed. Based upon these analyses, a specific alternative is recommended for funding. Finally, the project's goal and the analysis of alternatives that support the goal are summarized in a deliverable called the business case.

10. What is a project charter?

The project charter is a key deliverable for the second phase of the IT project methodology. It defines how the project will be organized and how the project alternative that was recommended and approved for funding will be implemented. The project charter provides another opportunity to clarify the project's goal and defines the project's objectives in terms of scope, schedule, budget, and quality standards. In addition, the project charter identifies and gives authority to a project manager to begin carrying out the processes and tasks associated with the systems development life cycle (SDLC).

11. What are the advantages of developing a detailed project plan after a project has been approved for funding?

The first advantage is that having the business case in place makes it easier to define the details of the project (who does what and when). The second advantage is that since the project plan is tactical in nature and the business case strategic, having goals and objectives in place prevents confusion between tactics and objectives. Finally if the project is not doable and/or worth doing (which the business plan should demonstrate), time and resources spent on a detailed plan would be wasted.

12. Describe the "execute and control phase" of the IT project methodology.

The Execute and Control phase of the project focuses on carrying out the project plan in order to deliver the IT product and managing the project's processes in order to achieve the project's goal. During this phase the project team uses a particular approach and set of systems analysis and design tools for implementing the systems development life cycle (SDLC). In addition, the project manager must ensure that the environment and infrastructure support the project.

13. Describe the "close project phase" of the IT project methodology.

After the information system has been developed, tested, and installed, a formal acceptance should transfer control from the project team to the client or project sponsor. The project team should prepare a final project report and presentation to document and verify that all the project deliverables have been completed as defined in the project's scope. At this time, the final cost of the project can be determined, the consultant may invoice the client for any remaining payments, or the accounting department may make any final internal charges to appropriate accounts. In addition, the project manager and team must follow a set of processes to formally close the project. These processes include such things as closing all project accounts, archiving all project documents and files, and releasing project resources.

14. Describe the "evaluate project success phase" of the IT project methodology.

This phase is marked by four different reviews:

- First, a "postmortem," or final project review, should be conducted by the project manager and team.
- Second, an evaluation between the project manager and the individual project team members is conducted.
- Third, an outside third party should review the project, the project manager, and project team.
- Fourth, the project must be evaluated in order to determine whether the project provided value to the organization.

Ultimately project success is measured by the value it brings to the organization and by the degree to which it met its intended goal. This value may not be clearly discernable immediately after the project is implemented. It may take some weeks or months before the value is fully known.

15. Describe the five project management processes.

- *Initiating processes*—to start or initiate a project or phase once commitment is obtained.

- *Planning processes*—to develop and maintain a workable plan to support the project's overall goal.
- *Executing processes*—to coordinate people and other resources to execute the plan.
- *Controlling processes*—to ensure proper control and reporting mechanisms are in place so that progress can be monitored, problems identified, and appropriate actions taken when necessary.
- *Closing processes*—to provide closure in terms of a formal acceptance that the project or a project's phase has been completed satisfactorily.

16. Why can a project that is developed under budget and before its deadline still not be considered successful?

Stating that a project was developed on time and under budget does not answer the important question: Did the project meet its goals in terms of such objectives as scope and quality and customer satisfaction and deliver all it promised?

17. What kinds of tools would be needed to support an IT project?

The project management tools include tools and techniques for estimation, as well as tools to develop and manage scope, schedule, budget, and quality. Similarly, tools support the development of the information system. For example, computer aided software engineering (CASE) tools and models support the analysis and design phases of development.

18. How does an organizational infrastructure support a project?

The organizational infrastructure determines how projects are supported and managed within the organization. The organizational infrastructure influences how project resources are allocated, the reporting relationships of the project manager and the project team members, and the role of the project within the organization.

19. What is a project infrastructure?

The project infrastructure supports the project team in terms of the project environment and the project team itself. It includes:

- *The project environment*—The physical workspace for the team to meet and work.
- *Roles and responsibilities of the team members* —This determines the reporting relationships, as well as the responsibilities and authorities of the individual team members.

- *Processes and controls*—Processes and controls provide support for managing all aspects of the project. They ensure that the project's goal and objectives are being met.

20. Describe a technical infrastructure that would be needed to support a consulting team working at a client site.

The technical infrastructure provides the hardware and software tools to support the project team. It may include such things as project management software, e-mail, voice mail, word processing, and access to the Internet.

21. Discuss how the project management knowledge areas support the IT project methodology.

The Project Management Body of Knowledge (PMBOK®) encompasses nine areas generally accepted as having merit for effectively managing projects. These nine areas support both the project processes and product by providing a foundation of knowledge for supporting projects within a particular organization. As an organization gains more experience with projects over time, the lessons learned from every project contribute to each of these nine areas. Ideally, these lessons will lead to an IT project management knowledge base that can be used to identify best practices that adapt the IT project methodology to an organization's needs, culture, and IT project environment. This base of knowledge can then be institutionalized throughout the organization and its projects.

22. What is a business case?

A business case is the first deliverable in the IT project life cycle. It provides an analysis of the organizational value, feasibility, costs, benefits, and risks of several proposed alternatives or options.

23. Why should an organization develop a business case?

The purpose of a business case is to show how an IT solution can create business value. Since firms have limited resources, they must have a way of deciding which projects to fund, this is done by comparing the potential value of proposed projects as shown in their respective business cases.

24. What is the purpose of selecting a core team to develop a business case?

By selecting a team to develop a business case instead of ceding responsibility to an individual, organizations enjoy an increase in credibility, the ability to align projects with organizational goals, and access to real costs. Additionally, the deployment of a team can lead to a wider sense of ownership, agreement on data and methods, and bridge building between interest groups.

25. What is a project's measurable organizational value (MOV)?

The MOV is the overall goal and measure of success of a project.

26. Develop a MOV for an organization that is contemplating developing a corporate intranet.

Examples may focus on such things as

- Provide current versions of 95% of all personnel policies, procedures, handbooks, and current job postings
- Save $100,000 in annual paper costs
- Reduce the number of full-time employees in HR from 3 to 2 *(p. 40)*

27. Why must a project's MOV be agreed upon?

A clear and agreed upon MOV sets expectations for the project stakeholders. If multiple stakeholders are involved, it is sometime easy to attempt to satisfy everyone by agreeing to an unrealistic or unachievable MOV. Such a condition can be detrimental to careers, the project team, and everyone's morale. Joint responsibility requires joint goals and agreed upon measures of success.

28. Describe how a project's MOV can support an organization's goals and strategies.

As shown by the IT Value Chain, an organizational goal leads to or defines certain organizational strategies. A project's MOV should be designed to align with and support those strategies. At the project's end, the project's results can be compared to the initial MOV. With a successful project, one should see successful execution of organizational strategies and a measurable realization of some organizational goal.

29. Describe how an IT project can bring value to an organization.

IT projects can bring value to an organization in at least 4 ways identified by their key words:

- *Better*—What does the organization want to do better? (For example, improve quality or increase effectiveness?)
- *Faster*—What does the organization want to do faster? (Increase speed, increase efficiency, or reduce cycle times?)
- *Cheaper*—What does the organization want to do cheaper? (Reduce costs?)

- *Do more*—What does the organization want to do more than it is currently?

  (Growth or expansion?)

30. What is a base case alternative? Why should a business case even consider a base case alternative?

The base case alternative is what the organization will do if no project is undertaken. That is – maintain the status quo and do not pursue any options described in the business case. Knowing what the benefits and costs of continuing with the status quo are will allow an organization to determine if an investment in another alternative will provide net positive value to the organization.

31. Describe Economic Feasibility.

Economic Feasibility requires an organization to consider if the funds and other resources are available to support the project and if the proposed project will yield the benefits envisioned in the project statement. Conducting an economic feasibility should serve as a reality check for each option or alternative.

32. Describe Technical Feasibility.

Technical feasibility focuses on the existing technical infrastructure needed to support the IT solution. It will help determine if the current infrastructure can support the alternative or if new technology (if available) were needed. It also considers whether the current IT staff has the skills and experience to support the proposed solution and if not can a vendor that has the skills and experience to develop and implement the application be contracted?

33. Describe Organizational Feasibility.

Organizational feasibility considers the impact on the organization. It focuses mainly on how people within the organization will adapt to this planned organizational change. How will people and the way they do their jobs be impacted? Will they accept this change willingly? Will business be disrupted while the proposed solution is implemented?

34. What other types of feasibility issues should an organization consider?

Other feasibilities such as legal and ethical may also be considered.

35. How should the risk of each business case alternative be analyzed?

Risk should focus on:

- *Identification*—What can go wrong? What must go right?
- *Assessment*—What is the impact of each risk?
- *Response*—How can the organization avoid or minimize the risk?

36. What is Total Cost of Ownership?

(TCO) is a concept that has gained widespread attention in recent years and generally refers to the total cost of acquiring, developing, maintaining, and supporting the application system over its useful life. TCO includes such costs as:

- *Direct or up-front costs*—Initial purchase price of all hardware, software, and telecommunications equipment, all development or installation costs, outside consultant fees, etc.
- *Ongoing costs*—Salaries, training, upgrades, supplies, maintenance, etc.
- *Indirect costs*—Initial loss of productivity, time lost by users when the system is down, the cost of auditing equipment (i.e., finding out who has what and where), quality assurance, and post implementation reviews.

37. What is Total Benefits of Ownership?

Total Benefits of Ownership (TBO) must include all of the direct, on-going, and indirect benefits associated with each proposed alternative. The TBO should address the benefits of an alternative over the course of its useful life. Benefits can arise from:

- *Increasing high-value work*—For example, a salesperson may spend less time on paperwork and more time calling on customers.
- *Improving accuracy and efficiency*—For example, reducing errors, duplication, or the number of steps in a process.
- *Improving decision-making*—For example, providing timely and accurate information.
- *Improving customer service*—For example, new products or services, faster or more reliable service, convenience, etc.

38. What is the difference between tangible and intangible benefits? Give an example of each.

Tangible benefits associated with an IT project are those that are relatively easy to identify and quantify. They will usually arise from direct cost savings or avoided costs. Intangible benefits are benefits that may

be easy to identify, but certainly more difficult to quantify or demonstrate. For example, a corporate telephone directory on an intranet not only improves communication, but also can cut paper, printing, and labor costs associated with creating and distributing a paper-based telephone book. The savings on printing a hard copy telephone book are tangible benefits. The improvement in communication is an example of an intangible benefit. It is hard to know in some common metric the worth of being able to have an accurate, up-to-date company directory that is on line, searchable and perhaps linked to one's telephone or email.

39. What are some ways of quantifying intangible benefits?

One way to quantify intangible benefits is to link them directly to tangible benefits that can be linked to efficiency gains. Another way to quantify intangible benefits is to estimate the level of service. For example, one could determine how much someone is willing to pay for a particular service or compare prices of products or services that have or do not have a particular feature.

40. Describe the payback method. What are some advantages and disadvantages of this method?

Payback is a method of analyzing the value of a project by determining how long it takes to recover the initial investment. Payback Period = Initial Investment/ Net Cash Flows

Its advantages include ease of calculation and understanding and the fact that alternatives can be compared for risk as a function of how long it takes to recoup investment (longer is usually riskier). Its disadvantages include the fact that it ignores cash flows beyond the payback period and it ignores the time value of money.

41. Describe the breakeven method. What are some advantages and disadvantages of this method?

The breakeven method determines when the project recoups its original investment and thus begins to return positive net benefit. It is particularly useful when returns can be calculated on a per unit basis. Breakeven Point = Initial Investment/Net Profit Margin

Its advantage includes ease of calculation and the ability to compare project risk (higher breakeven points are usually more risky). Its disadvantages includes the fact that it does not address units produced after the breakeven point and does not account for the time value of money.

42. Describe the ROI method. What are some advantages and disadvantages of this method?

ROI is method of determining the percentage rate of return on a project. It is calculated as:

Project ROI = (Total expected benefits-total expected costs)/ total expected costs

In applying this method, an organization looks at the ROI and when choosing between competing

(mutually exclusive) projects would choose the higher ROI (all other things being equal). If considering a project by itself, often organizations compare the ROI to a hurdle rate which must be equaled or exceeded before accepting. The usefulness of the ROI method is contingent on the ability to define accurately the total costs and benefits associated with the project and the ability to link to benefits directly to the initial investment. One of the disadvantages of the method relates to the difficulty of measuring those two contingencies because of intervening variables' indirect influence. The advantage of the ROI method includes the clarification of the relationship between the benefits and the costs of a project (ROI increases as benefits increase or costs decrease).

43. Describe the NPV method. What are some advantages and disadvantages of this method?

The NPV method focuses on the time value of money. A project's NPV is equal to the sum of all of the future net cash flows that derive from the project, discounted by the firm's required rate of return, minus the initial investment. The rule for applying NPV is to take the higher NPV when considering mutually exclusive projects and to accept only positive value NPV projects when considering stand-alone projects. The advantage of this method is that it takes into account the time value of money and also all relevant cash flows and when they are received. The disadvantage of the NPV method includes the fact that as with all methodologies, accurately estimating future cash flows can be difficult. The choice of the appropriate discount rate is also controversial at times.

44. What effect does increasing the discount rate have on a project's NPV?

Increasing the discount rate will decrease the project NPV since it is found in the denominator of the NPV formula.

45. What are the advantages of using a scoring model when comparing several project alternatives? Any disadvantages?

The advantages of using a scoring model to compare several projects include the ability to combine both qualitative and quantitative variables, (leading to a quantification of intangible benefits) and the transcending of the short run bias of most financial models. The ability to rank and weight the impact value of multiple criteria may be either an advantage or a disadvantage if there is disagreement as to the appropriate weights and/or selection criteria. The disadvantage is that the outcome of a scoring model is heavily influence by subjective judgments.

46. What is an IT project portfolio?

An IT portfolio is a set of multiple projects that an organization may undertake. These projects may vary significantly as to their levels of risk, technological complexity, size, and strategic intent.

47. Why shouldn't an organization always take on less challenging projects?

Choosing only low risk projects may lead to stagnation of the organization, a lack of professional growth for the IT employees, and failure of organizations to move ahead strategically. It also may not always lead to a low risk portfolio if all projects are highly correlated.

48. Describe the criteria that should be used to make a project selection decision.

The decision to approve an IT project requires a number of conditions be met:

- The IT project must map directly to the organization's strategies and goals.
- The IT project must provide measurable organizational value that can be verified at the completion of the project.
- The selection of an IT project should be based upon diversity of measures that include:
    - Tangible costs and benefits
    - Intangible costs and benefits
    - Various levels throughout the organization (e.g., individual, process, department, and enterprise)

49. Describe the Balanced Scorecard approach.

The Balanced Scorecard approach helps balance traditional financial measures with operational metrics across four different perspectives: finance, customer satisfaction, internal business processes, and the organization's ability to innovate and learn. An organization that utilizes the Balanced Scorecard approach must create a set of measurements, or key performance indicators, for each of the perspectives. In turn, these measures are used to create a report or scorecard for the organization that allows management to track, or keep score, of the organization's performance. The four perspectives provide a balanced approach in terms of tangible and intangible benefits and long and short-term objectives, as well as how each perspective's desired outcomes and drivers impact the other perspectives.

50. Describe the financial perspective of the Balanced Scorecard approach.

The Balanced Scorecard approach encourages managers to consider measures other than traditional financial measures. The Balanced Scorecard approach provides a means for linking financial performance with customer focused-initiatives, internal operations, and investments in employees and the infrastructure to support their performance. One new financial measure that represents the Balanced Scorecard financial perspective is the Economic Value Added (EVA). EVA is a measurement tool to determine if an organization is earning more than its true cost of capital.

51. Describe the customer perspective of the Balanced Scorecard approach.

The customer perspective of the Balanced Scorecard approach focuses on how an organization's performance is perceived by its customers. Customer-based measurements of satisfaction level with respect to products and services can be linked to financial rewards.

52. Describe the internal process perspective of the Balanced Scorecard approach.

The internal process perspective of the Balanced Scorecard approach focuses on the processes that an organization must excel at to attract and retain customers or satisfy stakeholders? Customer satisfaction can be achieved through improved operational activities by the organization, which in turn leads to improved financial performance. Therefore, internal-based measurements should focus on the efficiency and effectiveness of the organization's processes.

53. Describe the innovation and learning perspective of the Balanced Scorecard approach.

The Balanced Scorecard approach gives considerable support to the importance of investing in the future by investing in people and makes investing in human infrastructure at least as important as investing in technical and physical infrastructures. Measures for the innovation and learning perspective may include training, certifications, and employee satisfaction and retention.

54. How does the concept of MOV support the Balanced Scorecard approach?

The concept of MOV can support the Balanced Scorecard approach by developing the MOV in such a way as to measure the projects success in terms of the four perspectives of the Balanced Scorecard. For example instead of settling for some particular ROI or having a project's NPV be positive, the MOV might require the calculation of the EVA. Instead of just naming the project team and their current skill sets, the MOV might include among its goals the upgrading of team personnel skills through an included training program.