**PGD003 - Post Graduate Diploma in Project Planning and Management**

**MODULE 5 – MONITORING & EVALUATION: PARADIGMS, PRINCIPLES & CONCEPTS**

**MERCY RURII**

**December 2018**

1. **Explain briefly the types of project organization**

Projects are organized in different ways depending on how organizations view themselves or are organized, or what aspects of organization they consider to be most effective. Each organization considers numerous factors for inclusion in its organizational structure. There are four ways of organizing projects:

**Functional –** PMI 2017 describes a functional organization as that structure in which staff is grouped by areas of specialization and the project manager has limited authority to assign work and apply resources. A functional organizationis a classical, hierarchical structure of a project where each person is grouped by areas of specialization within the organization, such as accounting, marketing and manufacturing. Projects are aligned with the organization culture, and information, resources, labor, and equipment are formally requested, approved, and completed under a leading authority.

**Projectized –** According to Gareis and Huemann (1998) organizations perceive projects and programmes as temporary organizations for the performance of complex processes, such as contracts for external clients, as well as product development, marketing campaigns or re-engineering activities for internal clients. A projectized organization has the following characteristics:

* Defines management by projects as an organizational strategy;
* Adopts temporary organizations for the performance of complex processes;
* Manages a project portfolio of different project types;
* Has specific permanent organizations to provide integrative functions;
* Applies a ‘new management paradigm’;
* Has an explicit project management culture; and
* Perceives itself to be project-oriented.

Project managers have complete control of the project and resources are appointed to the project team and released from all traditional responsibilities until completion of the project. Project management is therefore devolved and creates a virtual department within the organization that acts as a cohesive unit. Communications and decision-making authority are self-contained within the team.

**Matrix -** Matrix management began in the 1960’s as an organizational means to meet the needs of the aerospace industries when government contract selection process required a project-oriented system directly linked to top-management. Kuprenas (2001) explains that in order to meet this requirement, aerospace firms established a set of horizontal project groups over their traditional vertical functional organizations. In creating such an organization, many employees would end up working both under a department head and a project manager of an interdisciplinary project team. When depicted on paper, this crossing of organizational lines is easily be represented by a grid of a matrix; hence, the term Matrix Organization was created.

Matrix structures are a blend of functional and projectized organizations that maximize the strength of each structure. There are three types of matrix organizations: weak, strong and balanced. Weak organizations are characterized by projects that have part-time members, limited control over authority, budget and decisions and multiple lines of responsibility. Strong matrices have dedicated resources, internal control of budget, and moderate levels of control over assets, resources and decision making authority. Balanced matrix organizations represent shared leadership between functional managers and project managers. A weak matrix organization would render projects very difficult to run as the project manager has very little control and authority over a project runs elsewhere. In instances where there is need for flexibility and creativity, this structure presents a particularly acute problem in managing projects.

**Composite -** Special, or composite projects are temporary, with commissioned teams designed to address critical, specialized or time-sensitive matters within a company. It is a flexible deployment of organizational resources that may be dedicated or temporary, and whose budgets and authoritative structures can be appointed at the time the project is appointed or vary depending on the assignment. It could be for instance that an organization is celebrating its 50th anniversary in about 2 years at the same time of the launch of a new strategic plan and a team needs to be put together to undertake this task and coordinate the development of a process that includes staff, alumni, grantees, government and other stakeholders. This would require its own budget, a dedicated team, a defined scope, a communications plan, and delivery of various events in the course of the two years. Standard operational practices of the organization may be relaxed or adjusted to achieve these goals. An organization can also develop new policies and to fill a gap or discrepancy in the existing organization, or structure that can allow for the accommodation of the composite structures. The project manager of a composite project has high to almost total authority over the project.

**2. What are the phases available in project portfolio process?**

Projects are a set of activities that lead to a certain objective or goal, are time bound, and utilise a finite number of resources within a defined scope, and have a defined beginning and end. To execute projects requires a string of sequential events, steps or activities before a project can be undertaken. Every organization has a methodology through which it undertakes its projects, the resources it employs and the size of projects that it undertakes. Generally, projects go through phases, and seven in particular:

**Stage 1— Identification and Preparation**

According to PMI (2017), a project is a temporary endeavour undertaken to create a unique product, service, or result. A project must therefore be identified and the background preparation to initiating and implementing the project undertaken. An airline manufacturer could identify that clients do not have enough legroom in the cabins, or the air is too dry, or the materials that manufacture a plane are too heavy which leads to higher fuel consumption, or that passengers take too long on lay-overs because the aircrafts cannot undertake long haul flights. To correct these issues, an aircraft manufacturer could identify a project that would create more legroom, lighter weight materials, and an aircraft that flies longer on less fuel and target a three year time frame to have delivered a brand new aircraft. The identification of a project is informed by the business environment in which an organization operates, the identified needs, the resources available and this allows for consultations among industry players, government, main clients and communities that lays the foundation for the project and thus the preparation.

**Stage 2— Project Appraisal, Selection, and Negotiation**

Projects are undertaken with a certain goal in mind; could be profit, getting a product in the market, solving a social issue. Despite the differences in goals, project sponsors keep an eye on the economics of the product or service, the feasibility, the probability of acceptability and what the organization itself can get out of the project or what value it would add to the overall objectives of the raison d’être of the organization in return for the resources expended.

**Stage 3— Project Planning and Design**

Project planning and design is a critical aspect of project management and takes a long time to complete. It is the point at which information is collected, the issue to be resolved or alleviated by the project is identified, the project's goals and objectives are formulated, decisions are made about the duration and sequencing of each stage of the project, the most efficient methods of construction and service delivery are selected, and additional information is collected for formulating what is expected to produce the desired social change in the target population. It is also the point at which a team develops all the above assumptions and expectations of how the project is expected to evolve; how it will be affected by the social, economic, and political environment in which it will operate; and how the intended beneficiaries will respond to it. In this stage, Pinto and Prescott (1998) posit that a more formalized set of plans to accomplish the initially developed goals are established. Among important activities in the planning and design phase is the enlisting of top management support to commit a variety of organizational resources (human, budgetary, etc.) as they will be required with each project stage (Pinto and Prescott, 1998). Organizational resources refers to the resource expenditures expected of the project organization in order to adequately provide for successful project implementation. These would include provision of financial, raw material, and human resources. Resource requirements are minimal at early conceptualization and planning stages but increase rapidly during late planning and project execution.

**Stage 4— Project Implementation**

Project implementation or execution is when actual project work is performed; materials and resources are procured and transformed into the intended project result and performance capabilities are verified. Once the project is completed, resources deployed to the project must be released, personnel from the team is reassigned and the project transferred to its intended users. Schultz, Slevin and Pinto (1987) point to two critical elements to successful implementation process; they are related to either the initial conceptualization of the project (clearly defined goals and top management support) or to its planning and control (sufficient resource allocation and project plans and schedules). There is, however, a second set of factors (a competent project manager, competent team members, adequate communication, feedback capabilities and responsiveness to clients) that is concerned with the actual process, or the action of the implementation rather than its planning (Schultz, Slevin, Pinto 1987)

**Stage 5— Evaluation of Project Implementation and Transition to Operations**

Evaluation is an important component of project management. It sets what has been achieved, or not, against what had been laid out in the plan to see whether the project is on course to achieve its goals and objectives, whether the assumptions made were correct, whether the risks can be managed, whether it is still within the budget and scope set out. This would also set out a schedule of what adjustments, changes, corrections may need to be made. The transition to operations should be part of the planning and design phase of the project that gives a comprehensive look at the project from beginning to end. According to Crawford and Bryce (2002), project monitoring and evaluation (M&E) information systems (IS), are frequently a requirement for funding, and are believed to inform the reporting process. The logical framework approach (LFA) is also widely used throughout the aid industry for project design and appraisal. Evaluation is also an accountability tool where reporting goes through an organizational structure and stakeholders can assess the progress of a project through project monitoring reports or project completion reports pull out the successes, downfalls, lessons and craft a way forward.

**Stage 6— Management of Project Operations and Ensuring Sustainability**

Sustainability is a key factor in assessing a project. Although it comes after a project has ended, it is an element that should be considered when planning and designing a project. Loorbach and Rotmans (2006) describe sustainability as an intrinsically normative, ambiguous and subjective notion, whose practical implementation has to incorporate the inherent conflicts between the values, ambitions and goals of a multitude of stakeholders. For instance, if a project is looking at agricultural insurance and farmers are being given an incentive to take up insurance for their crops or livestock, the project team needs to consider what happens when the project ends and there is no incentive to drive farmers to take up the insurance. Does the idea of taking insurance for crops just end for farmers or are they equipped enough to understand why that insurance is important? If they are equipped with an understanding of why the insurance is important, the incentive will not be the driver for taking up insurance but the very idea that it would hedge against crop failure and they would not be destitute should a crop fail, whether from drought, floods or pests. This would ensure that the benefit of running the project are realised long after the project has ended and in fact can be the basis upon which a project is scaled up and out to other communities. But there too must be an incentive for the organization or private sector company that is running the project otherwise there would be barely a business case to run the project.

**Stage 7— New Project Identification**

New project identification can be informed by previous projects in terms of lessons, processes, scope, budgets, and timelines. Organizational process assets that comprise policies and procedures, systems, and workplans can go a long way in helping a project team, sponsors and other stakeholders define a new project. At the International Development Research Centre, a second phase of Livestock Vaccines development was informed by a previous project that had worked on producing a vaccine that can be used to vaccinate cows against five diseases. The first phase was rather new territory and had an ambitious approach in attempting to undertake the research, develop and deploy the vaccine in a 4 year span with stakeholders drawn across three continents. At year 4, the vaccine was still in the laboratory stage and just getting into testing and would take another three years to complete. The second phase of developing a thermostable vaccine for New Castle disease for poultry and a vaccine against Contagious Bovine Pleuropneumonia borrowed the lessons from the first phase from the monitoring reports, completion reports, workplans, annual reports that indicate outcomes, results and lessons, and timelines in order to build in sufficient timelines, scope and budget for the new project to avoid the pitfalls of the first phase. Project identification can therefore be greatly aided by preceding projects. Putting into place an information system that stores documentation in an accessible way to project teams can aid, not just in identifying new projects, but also in cutting down time needed for developing templates, work breakdown structures, identifying scope and assessing partners who can undertake projects effectively.

**3. Explain the term risk management**

Projects come with risks especially in research, design, and production and can be internal to the organization or external. PMI 2017 defines risk as “an uncertain even or condition that, if it occurs, has a positive or negative effect on one or more project objectives”. Project managers not only have to integrate the multidisciplinary tasks and project elements within budget and schedule constraints, but also have to manage inventions and technology according to Kerzner (2009). Risk analysis is essential for every project. It involves the identification and systematic evaluation of all risk factors. Once identified and assessed, risks can then be managed in different ways depending on the source of the risk, type, or gravity (Dearden, Jones, Sartorius, CIDT, 2002). While risk analysis is undertaken at the design stage of the project, risk management is undertaken through the life of the project. Stakeholder analysis for example, identifies those stakeholders who present potential risks to a programme and situation analysis must necessarily take risk into account. Creating the logframe also requires programme planning and implementation teams to focus on risks.

Project risk management includes the processes of conducting risk management planning, identification, analysis, response planning, response implementation, and monitoring of risk on a project (PMI, 2017). Risk management aims to identify and manage risks that are not addressed by other project management processes and that when unmanaged have the potential to cause the project to deviate from the plan and fail to achieve the defined project objectives. Inevitably, therefore, risk management is intrinsically tied to project success.

Diagramatically, risk management would be as the below:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |
|  | Communicate and consult |  | Establish the context | | |  | Monitor and review |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Identify risks | | |  |  |
|  |  |  |  |  |  |  |
|  |  | Analyze risks | | |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  | Evaluate risks | | |  |  |
|  |  |  |  |  |  |  |
|  |  |  | Assess risk |  |  |  |
|  |  | Treat risks | | |  |  |

*Ahmed, Kayis and Amornsawadwatana (2007)*

Management of overall project risk aims to keep project risk exposure within an acceptable range by reducing drivers of negative variation, promoting drivers of positive variation, and maximizing the probability of achieving overall project objectives (PMI, 2017).

**4. How are projects cushioned from risk?**

New projects or new ideas always give birth to new challenges, new risks which come across during the development and execution of a project. Different mitigation strategies exist to handle new risks. Increasingly, companies are drifting toward project management tools and techniques to manage innovations, to ensure a better product quality, to meet deadlines, and to reduce the cost. Thus, decision makers along with academicians are trying to minimize risk by applying project management methods (Ahmed, 2017). Risks are inevitable in all projects but are especially important in innovation for which a high failure rate is typical. In some industrialized countries, the success rate of new products is 15%, and for underdeveloped countries like Hong Kong; it is just 2% states Ahmed (2017). Risk does not always matter and a project may be able to survive without doing anything about a known risk, although one would need to be confident why that particular risk is being set aside.

Tummala and Schoenherr (2011) posit that risk mitigation and contingency plans involve the development of risk response action plans to contain and control the risks (risk planning). While considering the risk mitigation policies, the biggest challenge is identifying the root cause of such projects. Risk mitigation strategies are the conceptualized action plans, and it is the process of developing options to enhance opportunities. It performs a thorough evaluation to reduce the likely threats, vulnerabilities, or impairments that can distress a business operation, a project, or any undertaking. A suitable response to each risk should be specified and recorded in a risk register. Since it is not feasible and practical to develop mitigation and prevention strategies for every risk identified, risk-planning begins with the examination of the costs required to implement each preventive action to contain and manage the identified risks Tummala and Schoenherr (2011).

According to Ahmed, Kayis and Amornsawadwatana (2007), a reactive approach or a feedback approach refers to risk mitigation actions initiated after risk events eventuate and can be seen as initiation of contingency plans. On the other hand, a pro-active approach or a feed forward approach refers to actions initiated based on chance of a risk event occurring, such as insurance. A combination of these two approaches is applied to risk management to avoid risk, reduce the likelihood of risk, reduce the impact of risk, transfer risk, or to retain the risk.

**5. Why is it important to plan for risk in execution of any project?**

Risks can have negative consequences to the project. Unmanaged threats may result in issues or problems such as delay, cost overruns, performance shortfall or loss of reputation for organizations PMI, 2017). Risks can arise both from within the organization or the project or from external factors, which can make risk assessment even more complicated. In addition, risks tend not to have a straight-line effect. One source of risk may give rise to several effects, or there may be several sources of any particular effect. The domino effect is also something to be aware of through the life of an activity, when the effect of one risk becomes the source of further risk(s), leading to complicated chains of effect, each consequent to others (Dearden, Jones, Sartorius, 2002).

Planning contributes to project success, with better preparations, high-risk projects do not increase project failure. It helps to identify the risks and plan for their responses, especially risks with negative effect, well in advance so if they do present themselves, there would be no paralysis in the project. It also allows for allocation of funding into ‘known-unknowns’ and ‘unknown-unknowns’ because some risks come with additional costs – there could be floods, or a bridge could collapse while under construction, an aircraft could be delayed and a company would need to pay penalties, a software could have a bug that needs to be corrected and that would be expensive to fix. Planning ahead for risk and uncertainty as far as is reasonably possible, can mitigate against failure of a project.

**6. What can be a source of conflicts in a team and how can the same be solved**

Teams are made up of people with different backgrounds, values, expertise, and ways of working, understanding, and sometimes ethnically, racially and geographically diverse groups. Despite these factors enriching a team, they can sometimes be a source of conflict within the team. Conflict can also arise through misunderstanding, lack of information, lack of respect and tolerance within a team. It can also be crowded out by the emotions of anger, mistrust and desire for revenge, and parties may not understand what is really going on, and what the actual source of the conflict may be. Functional diversity in teams, while potentially beneficial, increases the likelihood that individual team members will perceive the team’s task differently, leading to gaps in interpretation of what is needed for the team to be successful. These gaps are likely to create conflict as teammates try to solve what are essentially incompatible problems (Cronin and Weingart, 2007). Teams must contend, among other issues, with conflicts over effective and fair distribution of work and rewards, social loafing, and the best ways to accomplish their goals but they also provide an interpersonal context in which conflicts occur and attempts to manage them are made (Alper and Tjosvold, 2000).

In traditional hierarchical organizations, employees are expected to inform their managers and supervisors of problems and conflicts and abide by their decisions. In organizations that use teams, especially self-managing and other forms of empowered teams, employees are supposed to resolve problems and conflicts themselves. Self-managing team theorists have proposed that employees, as they are closer to the source of errors and variances in production, are better situated to correct them (Pasmore, Francis, Haldeman, & Shani, 1982). They are trained in quality management and given the power to halt or speed up production. Their participation in resolving these issues is expected to increase "ownership" of problems and more commitment to implement their solutions that in turn results in improved productivity, product quality, and work life.

Resolving conflict may involve a third party, or mediator, a neutral party, disinterested in the issue and who can help the aggrieved parties to dialogue, and also ensure that parties to a conflict are comfortable that their issues will be taken on board and dealt with in a fair manner. Mediation would help to arrive at a mutually agreed solution where parties do not feel victimised or ignored as it helps establish the source of the conflict and solutions and settlements can be found in a less acrimonious environment. The outcome of the conflict resolution should ensure that teams can fully play their part in ensuring the success of the project when their issues have been satisfactorily addressed.

**7. Give some ideas citing relevant examples for successful and better project teams**

Successful and better project teams have several determinant factors, including diversity and team composition, team leadership, communication, and socialization.

Diversity and team composition is important and makes for strong teams. Team composition is of practical interest because the combination of member attributes can have a powerful influence on team processes and outcomes (Kozlowski, 2001). A better understanding of such effects will help practitioners to select and construct more effective teams. Diversity can be many things - race, gender or cultural differences, but also diversity in experiences and skills. However, in this case, diversity of skills can make for very strong teams that can deliver a project successfully even when it encounters challenges, risks, or conflict.

The Agriculture sector has previously been confined to experts in agriculture given the need for farming practices, agronomy and areas specific to agriculture. At the International Development Research Centre, however, the Agriculture and Food Security team incorporates experts in agriculture, economics, policy, business, gender. This team looks at the agricultural value chain and the interaction of farming systems to infrastructure, government policy, household dynamics, gender dynamics, access to markets, and information technology among other areas. It was discovered that agriculture is not just about ploughing fields and planting seeds but also all other areas that facilitate production and commerce or trade of agricultural commodities and how that impacts on livelihoods of rural and urban dwellers. Thus the team is diverse in skills, is drawn from all continents, and has an understanding of the environment in which agriculture operates. It engages a holistic look at the agricultural value chain and borrows lessons from other geographical regions and therefore manages upward CA$ 100 million per year in projects.

**Strong team leadership** - Teams need a strong leader - one who will bring out the best in the team members. A good leader can know the individual strengths and weaknesses of the team and utilize that information to ensure the team composition has the right combination of skills to be successful. A good team leader will also find a way to fill in the gaps in skills like providing opportunities for development to turn the team’s weaknesses into strengths. A strong leader empowers the team members to work through issues and make decisions, but knows when to step in to keep the team moving forward. Good leadership makes for strong teams that understand their mandate and a leader who is committed both to the project and to the team.

**Communication** – there is no project that can succeed without a well laid out communications plan. A good team will ensure that all team members have access to information, there is a platform for collaboration, and they can share templates and can access policies and procedures easily. Communication about the project itself is essential for the team. The project manager or team leader has to ensure that team members share the vision, understand the timelines, budgets, purpose of the project, scope and can buy into the project. There also has to be a feedback loop where team members can proffer their views on certain issues, policies and procedures on the project that would help in better integration of the team. One also has to ensure that the team is appraised of project progress, setbacks and challenges, changes to the project and that the team members are involved in the decision making process especially if it affects their work routine or upsets their life-work balance and would be points of stress for the members. For instance, a section of the project has been fast tracked and therefore the resources that would have been called up in two weeks are called up in a day and will require that the human resource involved holds two positions for two weeks before their release time from the other assignment. Done haphazardly, this would upset the work schedule and life of the parties concerned. If this should be the case, the team leader should be able to communicate the changes in schedules and find a flexible work schedule for the parties concerned that would allow them to undertake their duties in the most effective way without working 20 hour days, which would be a cause of stress and render them less effective than they otherwise would be, and not be well integrated in the team thereby put the project in jeopardy. Every team member is important and should be adequately considered and briefed.

**Socialization -** Existing teams are governed by a relatively stable set of norms, role expectations, and shared systems of knowledge and meaning. Adding a new member can upset the balance of the team. New members are generally prepared to accept guidance from the group, but they may also seek to have the group accommodate to their needs, values, and capabilities. Socialization is therefore a process of mutual influence in which newcomers attempt to reduce uncertainty by learning about the work and group context; guided by group members who facilitate assimilation to existing norms, expectations, and meaning systems; while at the same time newcomers attempt to exert influence on the group to accommodate to their unique attributes and needs (Kozlowski, 2001). For instance, if the project needs a new finance controller, the person assigned to this docket coming into an already formed team, would need to understand the financial aspects of the project, who signs off on which documents, what the process and procedures for payments are, when and how often invoices are paid, and what are the payment policies. Without a good socialisation of the project and the team, the member would have to find their way and would take longer to assimilate which would slow the project down as other members wait for payments of various facets or phases of the project. It is therefore important that team members are socialized so they understand how the team operates, what is expected of them and what the team should deliver.

**References**

Ahmed, A., Kayis, B., and Amornsawadwatana, S. (2007). A review of techniques for risk management in projects. Benchmarking: An International Journal Vol. 14 No. 1, 2007 pp. 22-36 Emerald Group Publishing Limited.

Ahmed, R. (2017). Risk Mitigation Strategies in Innovative Projects. Intech.

Alper, S., Tjosvold, D., and Law, K. (2007). Conflict Management, Efficacy, and Performance in Organizational Teams. Covenant Behavioral Health, Milwaukee, WI, Department of Management, Lingnan University, Tuen Mun, Hong Kong, and Hong Kong University of Science and Technology.

Crawford, P., and Bryce, P. (2003). Project monitoring and evaluation: a method for enhancing the efficiency and effectiveness of aid project implementation. International Journal of Project Management 21, 363–373.

Cronin, M.A., and Weingart, L.R. (2007). Representational Gaps, Information Processing, and Conflict in Functionally Diverse Teams. Academy of Management Review, Vol. 32, No. 3, 761–773.

Dearden. P., Jones. S., Sartorius. R., and the Centre for International Development and Training. (2002). Development: A handbook for those engaged in development activity. Performance and Effectiveness: Department for International Development, UK.

Gareis, R., and Huemann, M. (1998) Project Management Competencies in the Project Oriented Organization. Gower Publishing, Gower House, Croft Road, Aldershot, Hants, GU11 3HR, UK.

<https://www.quickbase.com/blog/5-elements-of-successful-project-teams> accessed December 19, 2018

Kerzner, H. (2009). Project Management: A Systems Approach to Planning, Scheduling, and Controlling. John Wiley & Sons, Inc., Hoboken, New Jersey.

Kozlowski, S.W.R., and Bell, B.S. (2001). Work Groups and Teams in Organizations. Cornell University: ILR School Digital Commons.

Kuprenas, J.A., (2003). Implementation and performance of a matrix organization structure. Pergamon: International Journal of Project Management 51–62.

Loorbach, D. and Rotmans, J. (2006). Managing transitions for sustainable development. Dutch Research Institute for Transitions.

Pasmore, W., Francis, C. Haldeman, J. & Shani, A. (1982). Sociotechnical systems: A North American reflection on empirical studies of the Seventies. Human Relations, 35, 1179-1204.

PMI Institute. (2017) PMBoK Guide. Newton Square, PA.: Project Management Institute.

Schultz, Slevin, Pinto (1987). Strategy and Tactics in a Process Model of Project Implementation. The Institute of Management Sciences.

Slevin, D.P., and Pinto, J.K. (1987). Critical Success Factors in Effective Project implementation. Sloan Management Review, Vol 29, No. 6, pp. 33-41.

Tummala, R. and Schoenherr, T. (2011). Assessing and managing risks using the Supply Chain Risk Management Process (SCRMP). Supply Chain Management: An International Journal 474–483. Emerald Group Publishing Limited.