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PROJECT MANAGEMENT STYLES  
IN ARMENIAN PUBLIC ORGANIZATIONS

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## **Abstract**

In an era of globalization, transparency and competition organizations constantly undergo change. To manage the change, they need strategies. But usually strategies are developed in the framework of implementation of different projects, with their specific goals and objectives that are achieved step by step by different project management methodologies. Project orientation is becoming common not only in the private sector but also in public organizations.

The purpose of this Master's Essay is to study the styles of project management in Armenian public organizations and to do structured comparisons on the overall effectiveness of project management in terms of project management practices, tools and mechanisms.

For the purposes of this study four types of organizations were selected: a governmental entity and non-governmental organization, an international organization and a project implementation unit. Effectiveness was measured in four dimensions; questionnaires were filed during semi-structured interviews.

Results of research show that the international organization had the highest overall effectiveness, followed by the NGO, then the ministry and then PIU. Based on findings recommendations are developed for the given organizations to improve their management practice.

The study adds to the literature about the Armenian public organizations, it also emphasizes the necessity to conduct a wider-scope research on this topic with broader research agenda.

## TABLE OF CONTENTS

Acknowledgements.....	3
Abstract.....	4
Table Of Contents.....	5
List Of Abbreviations.....	6
Introduction.....	7
Definition And History Of Project Management In The Usa.....	10
The Essence Of Project Management.....	12
Project Objectives.....	13
Project Management Artifacts.....	13
Project Control Variables.....	14
Project Manager’s Role.....	15
Triple Project Constraints.....	16
1) Time.....	16
2) Cost.....	17
3) Scope.....	17
Project Management Approaches.....	18
Project Control Systems.....	20
Project Development Stages.....	21
Monitoring And Evaluation.....	23
Project Management Standards.....	27
European Union’s Approach To Project Management.....	28
A. Phases Of The Project Cycle.....	29
B. The Logical Framework Approach.....	31
The Research Hypothesis.....	33
Methodology And Research Design.....	34
Case Selection.....	35
Measure Of Effectiveness And Research Instrument.....	37
Findings And Discussion.....	39
Conclusion And Recommendations.....	44
References.....	46
Appendix A: List Of Interviewed People.....	48
Appendix B: Questionnaire.....	49

## LIST OF ABBREVIATIONS

ADB	Asian Development Bank
AIPM	The Australian Institute of Project Management
APM	Association for Project Management
CPM	Critical Path Method
IAPPM	International Association of Project and Program Management
IDA	International Development Association
IMF	International Monetary Fund
IO	International Organization
IPMA	International Project Management Association
IPMA	International Project Management Association
IPMC	International Project Management Commission
ISO	International Standards Organization
IT	Information Technologies
M&E	Monitoring and Evaluation
MES	Ministry of Education and Science
MIS	Management Information System
NGO	Nin-governmental Organization
PERT	Program Evaluation and Review Technique
PIU	Project Implementation Unit
PM	Project Management
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PMI	Project Management Institute
PRSP	Poverty Reduction Strategy Paper
UNDP	United Nations Development Program
WBS	Work Breakdown Structure

## **Introduction**

The globalization and transparency of the markets, increasing competition, growing cost pressure, optimization of public expenditures, the dynamics of customer needs and increasing public sector efficiency inevitably call for an increased use of project management. Combining best corporate practices and peculiarities of state project management Schmidt & Preuschoff (2006) summarized recent German experience of project management, looking upon it within a global context. The authors conducted an empirical study combining theoretical knowledge, expert knowledge and practical experience through professional analysis on three levels: 1) generating statements (hypotheses) in workshops in Canada, the USA, Mexico, Brazil, South Africa and China. 2) Doing secondary analysis of specialist literature, articles, conference presentations, dissertations, final year projects and subject related websites. 3) Online surveying around 350 project management professionals in selected countries ([www.pm-world-study.com](http://www.pm-world-study.com)). Based on these results Schmidt & Preuschoff (2006) explain that increasing globalization calls for greater market transparency, shorter product life cycles and an intensification of the competition. As a consequence, factors such as speed, flexibility and progressive cost reduction move are becoming the focus of business processes. This means that organisations have to continually react to the pressures of change. For better accommodation of change strategies and structures have to constantly be considered and adapted. This development is expressed in the increased orientation towards projects, because it is during the implementation of different projects that strategies are set, goals are developed that are achieved step by step by different project management methodologies.

Another research, this time in the public sector, testifies that effective project management is essential not only for private but also for public sector. The research shows that not only the management techniques play a critical role in the success of the project that

is being implemented but also the contractual relationship between the implementing parties. Morse (1996) presents the idea that the public can benefit from the programs more if they be organized to realize their goals most effectively. This can be done by trying to find a better way to harness energies and technical knowledge, both in and out of government. The author emphasizes that despite the expenditure of billions of dollars and the proliferation of public programs and services there is still a very long way from solving social and economic problems. He considers it evident that the reason for this is the administrative inefficiency and the traditional approach to public project management in government bodies because of the bureaucratic structure. In all the areas the operations are still on the old project-by-project basis. Problems are subdivided into manageable units, but rarely are those units coordinated into a comprehensive pattern. According to him a new approach should be adopted for the solution of these public problems and increasing the efficiency of government. Morse (1996) recommends changes in the governmental structure at all levels to accommodate multidisciplinary programs. So, there is a need in turning to the companies that have developed effective management tools and using these techniques for the solution of those problems. So, he speaks about introducing systems management approach in government sector.

Currently many projects are being implemented in Armenia as well. However, it is not quite clear how all these projects are being managed and whether they are effective or not.

In fact, the effectiveness of project management is closely interconnected with the organizational structure and contractual relationships of implementing parties Kerzner (2003). The research conducted by Kerzner (2003) in the USA confirms that contractual relations and the basis of origination determine the way it manages the projects of its activity. He believes that the analysis of project management style and method cannot be made



without analyzing the environment in which the project will be operating. In this respect, Kerzner (2003) underscores that government bodies lag behind all other types of organizations in project management methodologies, because the change is slow within them, automation is resisted and in general they do not serve the needs of the market.

On the other hand, research studying the characteristic traits of NGOs and the effectiveness of their functioning, states that governments across the world have increasingly relied on other actors to deliver basic services to their citizens because of the bad quality of service delivery (Khatib 2005). The author states that the private sector in its turn has played a significant role in service provision, accepting a sub-contracted role, yet an increasing role for NGOs has been identified, deriving from their strength and ability in accessing the situation, designing and implementing relevant projects to the development of the countries (Domberger et al. 1997; Nickson & Franceys 2003).

Based on empirical research in Asia and Eastern Europe Brinkerhoff (2002) came to some generalizations about the strengths of different types of organizations in terms of project management. According to him national governments provide the legal and institutional frameworks, whereas NGOs provide financial and material resources, act as an intermediary role between government and society and are presumed to be more flexible, responsive and innovative than governments, and the private sector can contribute financial and technical resources and international donors and development agencies can facilitate and provide financial and technical support (Brinkerhoff 2002).

Thus, as it is globally, project success is important for Armenia conditioned that the organizational structure of an implementing organization allows for the support of the effective project management. *PRSP Progress Report of Armenia* (2005) states that Armenia implements public expenditure management reform, as a result of which expenditures will be allocated by program budgeting. However, to ensure effective implementation of the reform,

the projects, that constitute the program budgets should be appropriately managed. In addition, the report emphasizes the importance of donors continuing to harmonize their activities and call the Armenian government for taking more active role in donor coordination, monitoring and evaluation including strengthening the administrative setup in the government to undertake this task effectively. So, coordination, monitoring and evaluation are some of the tools of management that need to be developed in Armenia. The same issue is addressed in *Economic Report and Interim Operational Strategy Armenia (2006-2009)* developed by Asian Development Bank that stresses the importance of the proficient use of tools and techniques of management in government projects in addition to international ones.

But before initiating the analyzing of the PM strategies linked to organizational types in Armenia it is necessary to find out what is the definition and essence of project management, what tools and mechanisms are used in the sector.

### **Definition and History of Project Management in the USA**

Harold Kerzner (2003) defines Project Management as the discipline of organizing and managing resources in such a way that the project is completed within defined scope, quality, time and cost constraints. According to him a project is a temporary and one-time endeavor undertaken to create a unique product or service, which brings about beneficial change or added value. This property of being a temporary and one-time undertaking contrasts with processes, or operations, which are permanent or semi-permanent ongoing functional work to create the same product or service over and over again. The management of these two systems is often very different and requires varying technical skills and philosophy, hence requiring the development of project management.

Kerzner (2003) also mentions challenges to project management. The first challenge of project management is to ensure that a project is delivered within defined constraints. The second, more ambitious challenge is the optimized allocation and integration of inputs needed to meet pre-defined objectives. A project is a carefully defined set of activities that use resources (money, people, materials, energy, space, provisions, communication, quality, risk, etc.) to meet the pre-defined objectives.

Robbins and Coulter (1995) state that as a discipline, Project Management developed from different fields of application including construction, engineering, and defense. In the United States, the forefather of project management is Henry Gantt, called the father of planning and control techniques, who is famously known for his use of the "bar" chart as a project management tool, for being an associate of Frederick Winslow Taylor's theories of scientific management, and for his study of the work and management of Navy ship building. His work is the forerunner to many modern project management tools including the work breakdown structure (WBS) and resource allocation.

Robbins and Coulter (1995) explain that marked the beginning of the modern project management era. Again, in the United States, prior to the 1950s, projects were managed on an ad hoc basis using mostly Gantt Charts, and informal techniques and tools. At that time, two mathematical project scheduling models were developed: (1) the "Program Evaluation and Review Technique" or PERT, developed by Booz-Allen and Hamilton as part of the United States Navy's Polaris missile submarine program; and (2) the "Critical Path Method" (CPM) developed in a joint venture by both DuPont Corporation and Remington Rand Corporation for managing plant maintenance projects. These mathematical techniques quickly spread into many private enterprises. Further, government sector having a objective to be more customer oriented borrowed the methods of management and administration that were commonly used in business sector.

In 1969, the Project Management Institute (PMI) was formed to serve the interest of the project management industry. The premise of PMI is that the tools and techniques of project management are common even among the widespread application of projects from the software industry to the construction industry. In 1981, the PMI Board of Directors authorized the development of what has become A Guide to the Project Management Body of Knowledge (PMBOK Guide), containing the standards and guidelines of practice that are widely used throughout the profession. The International Project Management Association (IPMA), founded in Europe in 1967, has undergone a similar development and instituted the IPMA Project Baseline. Both organizations are now participating in the development of an International Standards Organization (ISO) project management standard.

### **The essence of project management**

Heinz Wehrich and Harold Koontz (1993) in *Management: a Global Perspective* state that Project Management is composed of several different types of activities such as:

1. Planning the work or objectives
2. Analysis & design of objectives and events
3. Assessing and controlling risk (or Risk Management)
4. Estimating resources
5. Allocation of resources
6. Organizing the work
7. Acquiring human and material resources
8. Assigning tasks
9. Directing activities
10. Controlling project execution
11. Tracking and reporting progress
12. Analyzing the results based on the facts achieved
13. Defining the products of the project
14. Forecasting future trends in the project
15. Quality Management
16. Issues management
17. Issue solving
18. Defect prevention
19. Project closure
20. Communicating to stakeholders
21. Increasing/ decreasing a company's workers

### Project Objectives

Project objectives define target status at the end of the project, reaching of which is considered necessary for the achievement of planned benefits. They can be formulated as S.M.A.R.T. that is

- Specific, with
- Measurable (or at least evaluable) achievement,
- Achievable (recently Acceptable is used regularly as well),
- Realistic and
- Time terminated (bounded) (Nauheimer 1997; Berkun 2005; Chamoun 2006; Lewis 2002; Heerkens 2001).

The evaluation (measurement) of project objectives occurs at the project closure. However a continuous guard on the project progress should be kept by monitoring and evaluating.

### Project Management artifacts

The project management literature states that projects, to be successful, must adequately document objectives and deliverables (Nauheimer 1997; Berkun 2005; Chamoun 2006; Lewis 2002; Heerkens 2001). These documents are a mechanism to align sponsors, clients, and project team's expectations:

- Project Charter
- Business case/Feasibility Study
- Scope Statement / Terms of reference
- Project management plan / Project Initiation Document
- Work Breakdown Structure
- Change Control Plan
- Risk Management Plan
- Risk Breakdown Structure
- Communications Plan
- Governance Model
- Risk Register
- Issue Log
- Action Item List
- Resource Management Plan
- Project Schedule
- Status Report

- Responsibility assignment matrix
- Database of lessons learned
- Stakeholder Analysis

Also in order to ensure transparent management these documents are normally hosted on a shared resource that most of the organizations have (i.e., intranet web page) and are available for review by the project's stakeholders (except for the Stakeholder Analysis, since this document comprises personal information regarding certain stakeholders. Only the Project Manager has access to this analysis). Changes or updates to these documents are explicitly outlined in the project's configuration management (or change control plan) in international organizations.

#### Project Control Variables

Heerkens (2001) identifies the following Project control variables which project management tries to gain control over to avoid project failure:

Risk: Potential points of failure: Most negative risks (or potential failures) can be overcome or resolved, given enough planning capabilities, time, and resources. According to some definitions (including PMBOK Third Edition) risk can also be categorized as “positive-“ meaning that there is a potential opportunity, e.g., complete the project faster than expected. Customers (either internal or external project sponsors) and external organizations (such as government agencies and regulators) can dictate the extent of three variables: time, cost, and scope. The remaining variable (risk) is managed by the project team, ideally based on solid estimation and response planning techniques. Through a negotiation process among project stakeholders, an agreement defines the final objectives, in terms of time, cost, scope, and risk, usually in the form of a charter or contract.

To properly control these variables a good project manager has a depth of knowledge and experience in these four areas (time, cost, scope, and risk), and in six other

areas as well: integration, communication, human resources, quality assurance, schedule development, and procurement.

### **Project Manager's Role**

Andrew D. Szilagyi, Jr. (1981) emphasizes the role of the Project Manager in the success of any project. He states that project management is quite often the province and responsibility of an individual project manager. This individual seldom participates directly in the activities that produce the end result, but rather strives to maintain the progress and productive mutual interaction of various parties in such a way that overall risk of failure is reduced. A project manager is often a client representative and has to determine and implement the exact needs of the client, based on knowledge of the firm he/she is representing. The ability to adapt to the various internal procedures of the contracting party, and to form close links with the nominated representatives, is essential in ensuring that the key issues of cost, time, quality, and above all, client satisfaction, can be realized.

Szilagyi (1981) states that in whatever field, a successful project manager must be able to envision the entire project from start to finish and to have the ability to ensure that this vision is realized. Any type of product or service — buildings, vehicles, electronics, computer software, financial services, etc.— may have its implementation overseen by a project manager and its operations by a product manager.

So, the project manager has to:

1. develop the framework for performance: planning
2. establish order, function and design; organizing
3. direct employee performance: leading
4. evaluate performance: controlling
5. make changes and adapt to situations

Therefore, s/he considers that managerial skills and training as well as the conduct according to professional managers ethics is very important for them to fulfill their roles.

## **Triple Project Constraints**

James Lewis (2002) states that like any human undertaking, projects need to be performed and delivered under certain constraints. Traditionally, these constraints have been listed as scope, time, and cost. These are also referred to as the *Project Management Triangle* or *the traditional triple constraints* where each side represents a constraint. One side of the triangle cannot be changed without impacting the others. A further refinement of the constraints separates product “quality” or “performance” from scope, and turns quality into a fourth constraint.

The time constraint refers to the amount of time available to complete a project. The cost constraint refers to the budgeted amount available for the project. The scope constraint refers to what must be done to produce the project's end result. These three constraints are often competing constraints: increased scope typically means increased time and increased cost, a tight time constraint could mean increased costs and reduced scope, and a tight budget could mean increased time and reduced scope.

The discipline of project management is about providing the tools and techniques that enable the project team (not just the project manager) to organize their work to meet these constraints.

Another approach that Lewis (2002) presents to project management is to consider the three constraints as finance, time and human resources. If you need to finish a job in a shorter time, you can throw more people at the problem, which in turn will raise the cost of the project, unless by doing this task quicker we will reduce costs elsewhere in the project by an equal amount.

### **1) Time**

For analytical purposes, the time required to produce a deliverable is estimated using several techniques. One method is to identify tasks needed to produce the deliverables



documented in a work breakdown structure or WBS. The work effort for each task is estimated and those estimates are rolled up into the final deliverable estimate.

The tasks are also prioritized, dependencies between tasks are identified, and this information is documented in a project schedule. The dependencies between the tasks can affect the length of the overall project (dependency constrained), as can the availability of resources (resource constrained). Time is not considered a cost nor a resource since the project manager cannot control the rate at which it is expended. This makes it different from all other resources and cost categories.

### 2) Cost

Cost to develop a project depends on several variables including (chiefly): labor rates, material rates, risk management, plant (buildings, machines, etc.), equipment, and profit. When hiring an independent consultant for a project, cost will typically be determined by the consultant's or firm's per diem rate multiplied by an estimated quantity for completion.

### 3) Scope

Requirements specified for the end result. The overall definition of what the project is supposed to accomplish, and a specific description of what the end result should be or accomplish. A major component of scope is the quality of the final product. The amount of time put into individual tasks determines the overall quality of the project. Some tasks may require a given amount of time to complete adequately, but given more time could be completed exceptionally. Over the course of a large project, quality can have a significant impact on time and cost (or vice versa).

Together, these three constraints have given rise to the phrase "On Time, On Spec, On Budget". In this case, the term "scope" is substituted with "spec(ification)".

## **Project Management Approaches**

The project management literature states several approaches that can be taken to managing project activities including agile, interactive, incremental, and phased approaches (Nauheimer 1997; Berkun 2005; Chamoun 2006; Lewis 2002; Heerkens 2001).

Regardless of the approach employed, careful consideration needs to be given to clarify surrounding project objectives, goals, and importantly, the roles and responsibilities of all participants and stakeholders.

The traditional approach: A traditional phased approach identifies a sequence of steps to be completed. In the traditional approach, 5 components of a project (4 stages plus control) in the development of a project can be distinguished:

- project initiation stage;
- project planning or design stage;
- project execution or production stage;
- project monitoring and controlling systems;
- project completion stage.

So, in the traditional approach project management is like an operative tool, sequence of steps to be taken to achieve the aim that was set before. However, the most significant characteristic feature of PM is that it is a strategic tool, to set, take step and reach long-term objectives that will lead to the development of the organization. Therefore, it depends also on the type of organization to use Pm as an operative or as a strategic tool.

When used as an operative tool not all the projects visit every stage as projects can be terminated before they reach completion. Some projects probably don't have the planning and/or the monitoring. Some projects will go through steps 2, 3 and 4 multiple times.

While the names may differ from industry to industry, the actual stages typically follow common steps to problem solving - defining the problem, weighing options, choosing a path, implementation and evaluation.

Critical Chain Approach: Critical chain is an extension to the traditional critical path method. In critical studies of project management, it has been noted that several of these

fundamentally PERT-based models are not well suited for the multi-project company environment of today. Most of them are aimed at very large-scale, one-time, non-routine projects, and nowadays all kinds of management are expressed in terms of projects. Using complex models for "projects" (or rather "tasks") spanning a few weeks has been proven to cause unnecessary costs and low maneuverability in several cases. Instead, project management experts try to identify different “lightweight” models, such as Extreme Programming for software development. The generalization of Extreme Programming to other kinds of projects is extreme project management, which may be used in combination with the process modeling and management principles of human interaction management.

Event chain methodology: Event chain methodology is the next advance beyond critical path method and critical chain project management. Event chain methodology is an uncertainty modeling and schedule network analysis technique that is focused on identifying and managing events and event chains that affect project schedules. Event chain methodology helps to mitigate the negative impact of psychological heuristics and biases, as well as to allow for easy modeling of uncertainties in the project schedules. Event chain methodology is based on the following major principles:

- Probabilistic moment of risk: An activity (task) in most real life processes is not a continuous uniform process. Tasks are affected by external events, which can occur at some point in the middle of the task.
- Event chains: Events can cause other events, which will create event chains. These event chains can significantly affect the course of the project. Quantitative analysis is used to determine a cumulative effect of these event chains on the project schedule.

- Critical events or event chains: The single events or the event chains that have the most potential to affect the projects are the “critical events” or “critical chains of events.” They can be determined by the analysis.
- Project tracking with events: If a project is partially completed and data about the project duration, cost, and events occurred is available, it is possible to refine information about future potential events and helps to forecast future project performance.
- Event chain visualization: Events and event chains can be visualized using event chain diagrams on a Gantt chart.

### **Project control systems**

Project control is that element of a project that keeps it on track, on time, and within budget. Project control begins early in the project with planning and ends late in the project with post-implementation review, having a thorough involvement of each step in the process. Each project should be assessed for the appropriate level of control needed: too much control is too time consuming, too little control is too costly. If control is not implemented correctly, the cost to the business should be clarified in terms of errors, fixes, and additional audit fees. Control systems are needed for cost, risk, quality, communication, time, change, procurement, and human resources. In addition, auditors should consider how important the projects are to the financial statements, how reliant the stakeholders are on controls, and how many controls exist. Auditors should review the development process and procedures for how they are implemented. The process of development and the quality of the final product may also be assessed if needed or requested. A business may want the auditing firm to be involved throughout the process to catch problems earlier on so that they can be fixed more easily. An

auditor can serve as a controls consultant as part of the development team or as an independent auditor.

Businesses sometimes use formal systems development processes. These help assure that systems are developed successfully. A formal process is more effective in creating strong controls, and auditors should review this process to confirm that it is well designed and is followed in practice. A good formal systems development plan outlines:

- A strategy to align development with the organization's broader objectives
- Standards for new systems
- Project management policies for timing and budgeting
- Procedures describing the process

### **Project development stages**

Regardless of the methodology used, the project development process will have the same major stages: initiation, development, production or execution, and closing/maintenance.

The initiation stage determines the nature and scope of the development. If this stage is not performed well, it is unlikely that the project will be successful in meeting the organization's needs. The key project controls needed here are an understanding of the business environment and making sure that all necessary controls are incorporated into the project. Any deficiencies should be reported and a recommendation should be made to fix them. The initiation stage should include a cohesive plan that encompasses the following areas:

- Study analyzing the business needs in measurable goals.
- Review of the current operations.
- Conceptual design of the operation of the final product.
- Equipment requirement.
- Financial analysis of the costs and benefits including a budget.
- Select stake holders, including users, and support personnel for the project.
- Project charter including costs, tasks, deliverables, and schedule.

After the initiation stage, the framework for project operation is designed. Controls should be in place that ensure that the final product will meet the specifications of the project charter. The results of the design stage should include a project/product design that:

- Satisfies the project donor, sponsor, end user, and business requirements.
- Functions as it was intended.
- Can be implemented/produced within quality standards.
- Can be implemented produced within time and budget constraints.

Closing and Maintenance Closing includes the formal acceptance of the project and the ending thereof. Administrative activities include the archiving of the files and documenting lessons learned.

Maintenance is an ongoing process, and it includes:

- Continuing support of end users
- Correction of errors
- Updates of the software over time
- In this stage, auditors should pay attention to how effectively and quickly user problems are resolved.

Over the course of any project, the work scope changes. Change is a normal and expected part of the process. Changes can be the result of necessary design modifications, differing site conditions, material availability, contractor-requested changes, and impacts from third parties.

The literature also presents **Project Management Tools** that include:

- Financial Tools
- Cause and Effect Charts
- PERT Charts
- Gantt Charts
- Event Chain Diagrams
- Run Charts
- Project management software like Management Information System (MIS)

## **Monitoring and evaluation**

In project management stages great importance is given to monitoring and evaluation (M&E). M&E of development activities provides government officials, development managers, and civil society with better means for learning from past experience, improving service delivery, planning and allocating resources, and demonstrating results as part of accountability to key stakeholders. Within the development community that function by international organizations there is a strong focus on results - this helps explain the growing interest in M&E. Yet, the World Bank manual on *Monitoring and Evaluation* (2004) clarifies that there is often confusion about what M&E entails. There are 9 widely used M&E tools, methods and approaches that are outlined below.

### **1. Performance indicators**

Performance indicators are measures of inputs, processes, outputs, outcomes, and impacts for development projects, programs, or strategies. When supported with sound data collection - perhaps involving formal surveys - analysis and reporting, indicators enable managers to track progress, demonstrate results, and take corrective action to improve service delivery. Participation of key stakeholders in defining indicators is important because they are then more likely to understand and use indicators for management decision-making.

### **2. The logical framework approach**

The logical framework helps to clarify objectives of any project, program, or policy. It aids in the identification of the expected causal links - the “program logic”—in the following results chain: inputs, processes, outputs (including coverage or “reach” across beneficiary groups), outcomes, and impact. It leads to the identification of performance indicators at each stage in this chain, as well as risks which might impede the attainment of

the objectives. The LogFrame is also a vehicle for engaging partners in clarifying objectives and designing activities. During implementation the LogFrame serves as a useful tool to review progress and take corrective action.

### 3. Theory-based evaluation

Theory-based evaluation has similarities to the LogFrame approach but allows a much more in-depth understanding of the workings of a program or activity - the “program theory” or “program logic.” In particular, it need not assume simple linear cause-and effect relationships. By mapping out the determining or causal factors judged important for success, and how they might interact, it can then be decided which steps should be monitored as the program develops, to see how well they are in fact borne out. This allows the critical success factors to be identified. And where the data show these factors have not been achieved, a reasonable conclusion is that the program is less likely to be successful in achieving its objectives.

### 4. Formal surveys

Formal surveys can be used to collect standardized information from a carefully selected sample of people or households. Surveys often collect comparable information for a relatively large number of people in particular target groups. They can be used for providing baseline data against which the performance of the strategy, program, or project; comparing different groups at a given point in time; comparing changes over time in the same group; describing conditions in a particular community or group; providing a key input to a formal evaluation of the impact of a program or project; assessing levels of poverty as basis for preparation of poverty reduction strategies.



### 5. Rapid appraisal methods

Rapid appraisal methods are quick, low-cost ways to gather the views and feedback of beneficiaries and other stakeholders, in order to respond to decision-makers' needs for information. They can be used for providing rapid information for management decision-making, especially at the project or program level; providing qualitative understanding of complex socioeconomic changes, highly interactive social situations, or people's values, motivations, and reactions, etc.

### 6. Participatory methods

Participatory methods provide active involvement in decision-making for those with a stake in a project, program, or strategy and generate a sense of ownership in the M&E results and recommendations. They can be used for learning about local conditions and local people's perspectives and priorities to design more responsive and sustainable interventions; identifying problems and trouble-shooting problems during implementation; evaluating a project, program, or policy, etc.

### 7. Public expenditure tracking surveys

Public expenditure tracking surveys track the flow of public funds and determine the extent to which resources actually reach the target groups. The surveys examine the manner, quantity, and timing of releases of resources to different levels of government, particularly to the units responsible for the delivery of social services such as health and education. PETS are often implemented as part of larger service delivery and facility surveys which focus on the quality of service, characteristics of the facilities, their management, incentive structures, etc.

## 8. Cost-benefit and cost-effectiveness analysis

Cost-benefit and cost-effectiveness analysis are tools for assessing whether or not the costs of an activity can be justified by the outcomes and impacts. Cost-benefit analysis measures both inputs and outputs in monetary terms. Cost-effectiveness analysis estimates inputs in monetary terms and outcomes in non-monetary quantitative terms (such as improvements in student reading scores).

## 9. Impact evaluation

Impact evaluation is the systematic identification of the effects – positive or negative, intended or not – on individual households, institutions, and the environment caused by a given development activity such as a program or project. Impact evaluation helps to better understand the extent to which activities reach the poor and the magnitude of their effects on people's welfare. Impact evaluations can range from large scale sample surveys in which project populations and control groups are compared before and after, and possibly at several points during program intervention; to small-scale rapid assessment and participatory appraisals where estimates of impact are obtained from combining group interviews, key informants, case studies and available secondary data.

The World Bank Manual points that some of these tools and approaches are complementary; some are substitutes. Some have broad applicability, while others are quite narrow in their uses. The choice of which is appropriate for any given context will depend on a range of considerations. These include the uses for which M&E is intended, the main stakeholders who have an interest in the M&E findings, the speed with which the information is needed, and the cost.

## **Project Management Standards**

The practice of effective project management is standardized throughout the world. Kerzner (2003) explains that standardization is not only important among different organization but also inside a single organization. The overall management of the projects and their simultaneous control is efficient if the various departments of the same organization use the same tools and techniques of project management, share the same system. More sophisticated of this standardization is the usage of IT project management tool.

Because of the significance of PM standardization several national and professional associations exist which have as their aim the promotion and development of project management and the project management profession. The more prominent of these organizations are:

- The Project Management Institute (PMI)
- The Association for Project Management (UK) (APM)
- The Australian Institute of Project Management (AIPM)
- The International Project Management Association (IPMA)
- The International Association of Project and Program Management (IAPPM)
- The International Project Management Commission (IPMC)

These Associations have made several attempts to develop project management standards, such as:

- PMBOK (Project Management Body of Knowledge as defined by the - PMI): "management is the application of knowledge, skills, tools and techniques to project activities to meet project requirements"
- The Standard for Program Management
- Project Management Certification (PMI)
- APM Body of Knowledge 5th ed. (APM (UK))
- PRINCE2 (Projects IN a Controlled Environment) PRINCE project management methodology: "The planning, monitoring and control of all aspects of the project and the motivation of all those involved in it to achieve the project objectives on time and to the specified cost, quality and performance"
- DIN 69901 (Deutsches Institut für Normung - German Organization for Standardization): "Project management is the complete set of tasks, techniques, tools applied during project execution"
- V-Modell (German project management method)

- HERMES\_method (The Swiss general project management method, selected for use in Luxembourg and international organisations)
- Organizational Project Management Maturity Model (OPM3)
- International Standards Organization Founded 1947
- ISO 10006:2003, Quality management systems - Guidelines for quality management in projects
- JPACE (Justify, Plan, Activate, Control, and End - The James Martin Method for Managing Projects (1981-present))

All these companies have also established system for Professional Certifications like CPM (The International Association of Project & Program Management); Project Management Professional; Certified Associate in Project Management; PMI certifications.

### **European Union’s Approach to Project Management**

Based on the theoretical perspectives of standardization presented above International Organizations that implement various development projects in a given country have developed their internal standardized systems for project management. European Union implements its projects according to the *Project Cycle Management (PCM) Handbook*. The handbook presents that the way in which projects are planned and carried out follows a sequence that has become known as the project cycle. The cycle starts with the identification of an idea and develops that idea into a working plan that can be implemented and evaluated. Ideas are identified in the context of an agreed strategy. The project cycle provides a structure to ensure that stakeholders are consulted and relevant information is available, so that informed. The cycle defines the key decisions, information requirements decisions can be made at key stages in the life of a project.

The generic project cycle has five phases: Programming; Identification; Formulation; Implementation; and Evaluation and responsibilities at each phase.

The phases in the cycle are progressive – each phase needs



to be completed for the next to be tackled with success.

The cycle draws on evaluation to build experience from existing projects into the design of future programmes and projects.

#### A. Phases of the Project Cycle

The phases of the project cycle can be described as follows:

1. During the Programming phase, the situation at national and sectoral level is analysed to identify problems, constraints and opportunities which cooperation could address. This involves a review of socio-economic indicators, and of national and donor priorities. The purpose is to identify and agree the main objectives and sectoral priorities for cooperation, and thus to provide a relevant and feasible programming framework within which projects can be identified and prepared. For each of these priorities strategies will be formulated that take account of the lessons of past experience.

2. During the Identification phase, ideas for projects and other actions are identified and screened for further study. This involves consultation with the intended beneficiaries of each action, an analysis of the problems they face, and the identification of options to address these problems. A decision can then be made on the relevance of each project idea (both to the intended beneficiaries and to the programming framework), and on which ideas should be further studied during the Formulation phase.

3. During the Formulation phase, relevant project ideas are developed into operational project plans. Beneficiaries and other stakeholders participate in the detailed specification of the project idea that is then assessed for its feasibility (whether it is likely to succeed) and sustainability (whether it is likely to generate long-term benefits for the beneficiaries). On the basis of this assessment, a decision is made on whether to draw up a formal financing proposal and seek funding for the project.

4. During the Implementation phase, the project is mobilised and executed. This may require the tendering and award of contracts for technical assistance or works and supplies. During implementation, and in consultation with beneficiaries and stakeholders, project management assesses actual progress against planned progress to determine whether the project is on track towards achieving its objectives. If necessary the project is re-oriented to bring it back on track, or to modify some of its objectives in the light of any significant changes that may have occurred since its formulation.

5. During the Evaluation phase, the funding agency and partner country assess the project to identify what has been achieved, and to identify lessons that have been learned. Evaluation findings are used to improve the design of future projects or programmes. Although in the generic cycle the evaluation phase comes after implementation, it is common practice also to conduct a mid-term evaluation during implementation, to identify lessons that can be applied during the remaining life of the project.

PCM brings together aid management principles, analytical tools and techniques, and applies them within the structured decision-making process of the project cycle to ensure that:

1) projects are relevant to the agreed strategy and to the real needs of beneficiaries:

- projects are linked to sectoral, national and Commission objectives
- beneficiaries are involved in the planning process from an early stage
- problem analysis is thorough
- objectives are clearly stated in terms of benefits to target groups

2) projects are feasible in that objectives can be realistically achieved within the constraints of the operating environment and the capabilities of the implementing agencies:

- objectives are logical and measurable

- risks and assumptions, and the implementing agencies capabilities are taken into account
- monitoring concentrates on relevant targets

### 3) projects are sustainable

- factors affecting sustainability are addressed as part of project design
- results from evaluation are used to build lessons learned into the design of future projects

Project planning and management tools provide the practical mechanisms by which relevance, feasibility and sustainability can be achieved. The core tool used within PCM for project planning and management is described Logical Framework Approach (LFA).

## B. The Logical Framework Approach

Major projects can be divided into subprojects, and program denotes collection of related projects. Typically, collaboration between project team members is needed for a successful outcome.

The Logical Framework Approach is the main tool used for project design during the Identification and Formulation phases of the project cycle. Using the LFA during Identification helps to ensure that project ideas are relevant, while during Formulation it helps to ensure feasibility and sustainability.

The approach is split into two phases:

Phase 1 - the Analysis Phase during which the existing situation is analysed to develop a vision of the 'future desired situation' and to select the strategies that will be applied to achieve it. It contains:

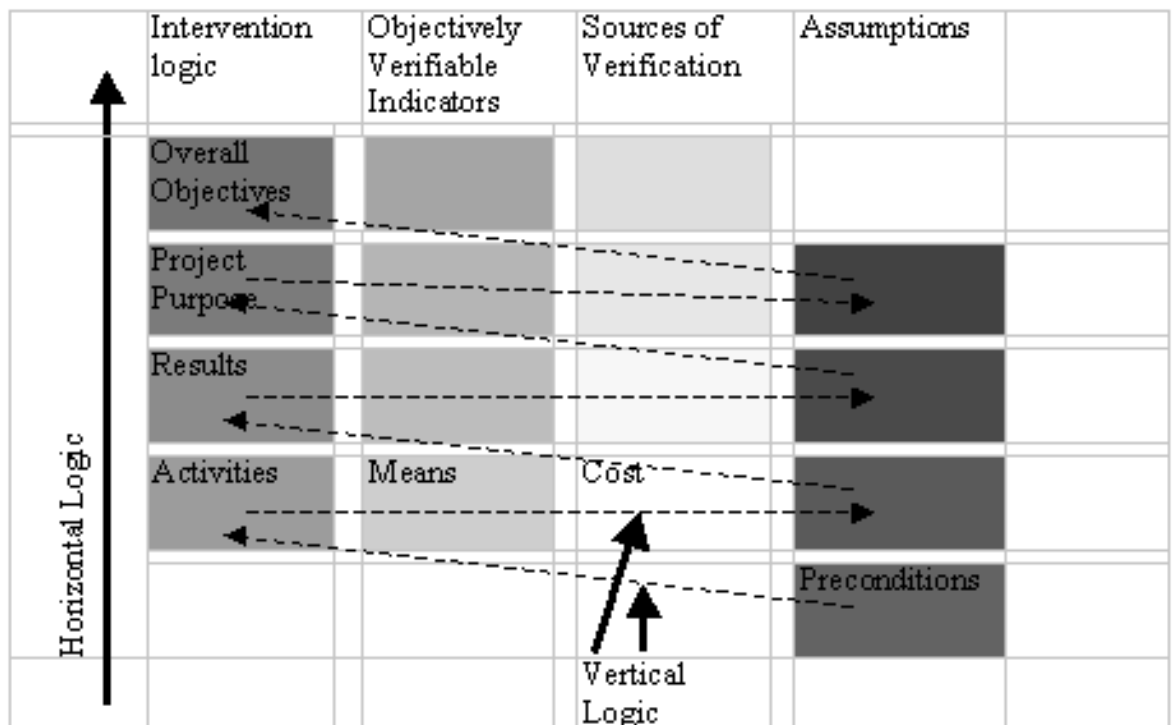
- Problem analysis – identifying stakeholders, their key problems, constraints and opportunities; determining cause and effect relationships

- Analysis of objectives - developing objectives from the identified problems; identifying means to end relationships
- Strategy analysis - identifying the different strategies to achieve objectives; determining the major objectives (overall objectives and project purpose)

Phase 2 – the Planning Phase during which the project idea will be developed in operational detail. It contains:

- Logframe - defining the project structure, testing its internal logic, formulating objectives in measurable terms, defining means and cost (overall)
- Activity scheduling – determining the sequence and dependency of activities; estimating their duration, setting milestones and assigning responsibility.
- Resource scheduling - from the activity schedule, developing input schedules and a budget

The main output of the LFA is the logframe matrix. It consists of a table, which has four columns and four rows (see figure blow).





The vertical logic identifies what the project intends to do, clarifies the causal relationships and specifies the important assumptions and uncertainties beyond the project manager's control. The horizontal logic relates to the measurement of the effects of, and resources used by, the project through the specification of key indicators of measurement, and the means by which the measurement will be verified.

The logframe sets out the intervention logic of the project (if activities are undertaken, then results will be achieved, then project purpose, etc.) and describes the important assumptions and risks that underlie this logic. This provides the basis for checking the feasibility of the project. For management and supervision of projects, the logframe defines the tasks to be undertaken, the resources required, and the responsibilities of management.

### **The Research Hypothesis**

Recent public administration literature often assumes that partnership between state and non-state entities has been growing since the widespread uptake of New Public Management reforms of the 1980s and the condemnation of government monopolies. The shift in the Government's role from rowing to steering was driven by concerns over public sector inefficiency and an interest in public participation to ensure good governance. In the delivery of most projects, programs and increasingly in basic services, partnership is now considered essential to enhance organizational capacity, cost effectiveness, resource mobilization, managerial innovation, consensus building, people's participation and public accountability (Haque 2004).

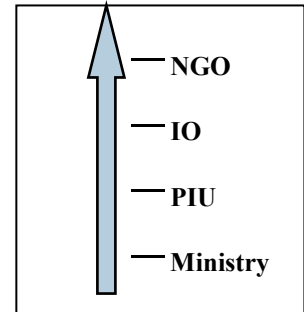
Because of their perceived strengths in possessing local knowledge, understanding local needs and priorities, consultative management and ability to engage international practices with the local setting, partnerships with NGOs have been sought by governments to

address necessary development and empowerment of local populations. Partnerships with NGOs have been prescribed to reduce governments' risks and responsibilities, to reduce public sector debt and to enrich the quality of public policies (Haque 2004).

At the same time Tvedt (1998) denotes that international organizations see NGOs as mature organizations to channel funds by and through them, as they are institutionally separate from the state and are non-profit distributing.

The purpose of this essay is to study whether the type of Armenian public organizations determine the way they manage; to discover the successful project management techniques within these organizations; to investigate whether project management is used as a strategic or operational tool within these organizations; to find out whether PM is systematically used; and to see whether it is a standardized method throughout the whole organization.

Therefore, the hypothesis for this study is the type of the implementing organization is the most important determinant for the overall effectiveness of project management: \_\_NGOs, being the most effective ones to survive, the practice of which is followed by international donor organizations after with comes PIUs and the least effective ones are government ministries. The direction of the hypothesis is presented in the figure.



### **Methodology and Research Design**

Project management literature defines different types and styles of project management that is presented above. Moreover, in the scientific literature of public administration area various indicators are identified as measures for efficient project management (Nauheimer 1997; Berkun 2005; Chamoun 2006; Lewis 2002; Heerkens 2001).

Based on the literature in the area and different project management methodological tools and project control variables four main indicators of overall effective management were defined. These indicators were developed into a single questionnaire on four dimensions to measure the overall effectiveness of projects' management implemented by the four types of Armenian public organizations. The data were collected by face-to-face semi-structured interviews.

Further, structured comparisons of the results were done within the given project area on each of the indicator per type of organization. In addition, when appropriate and available, documentation like project reports, schedules, budgets and deliverables were studied in the selected organizations to contribute in finding answers and explanations raised by the study.

### **Case Selection**

To find out project management styles in different types of Armenian public organizations in comparison with the general trends and developments in project management on global level four types of organizations were selected for the case study. There were two general selection criteria: type of activity and type of a public organization.

1. Type of activity: it was decided to consider organization to be valid for selection in the case study if it operates in the sector of education. The same sphere of activity for the organization ensures equal and similar conditions for its operation.
2. Type of a public organization: four types of public organizations were defined that can have different style of management practice in the given sector. These types are: a state organization, a non-governmental organization, an international organization and a project implementation unit.

However, it is necessary to note that those organizations that are considered international donor organizations in Armenia may be an NGO or even a profit making company registered abroad. Yet, they are other than national organizations in Armenia and therefore, for the purposes of our study it was interesting for us to study their case as well.

There is another thing that needs to be mentioned in terms of Project Implementation Units (PIUs). PIU is not a type of organization; it is an interconnecting body between the donors and relevant government agencies. It is a state body supposed to function as a donor organization. Currently a vast majority of projects financed by international donor organizations are being implemented through the PIUs created specifically to implement the given project in Armenia. For that reason we found it appropriate to study their case as well in terms of project management style.

Thus, in the frames of the study as state organization the Ministry of Education and Science was selected, as an NGO the “Adult Education and Lifelong Learning” Association was selected, as an IO United Nations Office in Armenia was selected, and finally Social-Educational Protection Administration Project PIU was selected as the fourth type of the organizational case.

In each of the organization the department responsible for the methodological issues of management was selected and questionnaires were filed with four employees being the average people of the organization and representing different job levels: a project manager, a specialist, an assistant and a financial officer. As effective management is dependant on meeting the time and cost as well as resource constraints it was necessary to have the views of the financial officer and to compare them with the responses of the implementing staff. Overall sixteen people were interviewed. For the list of interviewed people see Appendix A.

## **Measure of Effectiveness and Research Instrument**

Effectiveness was measured in four dimensions the research instrument was developed according to these logical sections, each having from seven to ten measures rating with simple aggregate scores.

The first dimension was the usage of project management techniques like milestone schedule or budget, Bar/GANT chart and others as well as identification of major project success criteria as defined in theory above.

The second direction was the usage of project management as a strategic tool in addition to using it as an operative tool. When it is used as an operative tool it means that project management techniques are used temporarily, merely for certain activities and for the fulfillment of given project goals whereas strategically the whole organization is managed as a whole aggregate project, with long-term goal and objectives that fit into its mission.

The third measure of effectiveness was carried out by checking whether the usage of project management was systematic by organization and whether it was composed of several elements that constructed the whole system.

The fourth path to check the overall effectiveness of project management was through finding out whether a single, standard method of project management is used throughout the whole organization, or variety of techniques are applied in different divisions and departments.

In addition to checking effectiveness in the described four dimensions the questionnaire also comprised a section with five proxy measures where the respondent could give his/her own rating of the effectiveness of the projects implemented by them as by their consideration. This section was especially designed to draw comparisons between the actual

effectiveness of the PM at a given organization and the views and self-estimation of the employees implementing them.

The full instrument was compiled and adopted to the purposes of our study from several other survey instruments available on line on different professional project management resource Websites. For the full questionnaire see Appendix B.

## Findings and Discussion

The results of the analysis of data is presented below. Findings for each of the four dimension of checking PM effectiveness are presented separately for all types of organizations. The range is presented in the respective table per given dimension.

### First criterion: PM Successful techniques

Type of oragnisation	NGO	IO	PIU	Ministry
	There is a successful use of PM tools; yet no current IT tool is used. In addition there is a clear vision on planning, goal setting and its connection with the final project deliverables.	Very many useful successful PM techniques are used; even IT based highly sophisticated ones. Logical framework of the projects is also in practice.	There is no understanding of the difference the project techniques and the managers' skills. No formal management technique or planning process is used.	Consider planning and manager's skills as key to success, yet only budget and departmental work plan is used, and quarterly financial reporting because they have a "rainfall" of paperwork to do, instead of drafting and implementing plans. But participated in training and see it useful.
<b>Index</b>	6	7	3.6	4.3
<i>RANGE 1-7 (1-least successful, 7-most successful)</i>				

### Second criterion: PM is a Strategic tool versus operational one

Type of oragnisation	NGO	IO	PIU	Ministry
	PM, except being used as operative tool. is also used as a strategic one; project mission is connected with long-term goals and current activities. Irrespective of the great	Despite using PM in everyday operations, it is also viewed as a strategic tool, for long term objectives. Extensive research and development	PM is considered to be strategic but it is not used for either purposes. In case it is used is as an operational means and only because it was required by the	PM is viewed as only operational tool despite the fact that 3 year strategic plan is developed and there is a strong understanding among the staff on the mission & long term objectives of the organization.

	importance that is attached to research, development and training, it is not used because of the lack of funds, only when financed by a donor.	activity is implemented, trainings are also in place.	donor. Trainings are considered to be important, yet no practical effort is undertaken in this direction.	Research and development as well as trainings are viewed as important tool, yet not used.
<b>Index</b>	6.1	6.6	2.5	3.8
<b>RANGE 1-7</b> (1-operative tool, 7-strategic tool)				

### Third criterion: PM is systematic

<b>Type of organisation</b>	<b>NGO</b>	<b>IO</b>	<b>PIU</b>	<b>Ministry</b>
	PM is systematic, every element in the project is identifiable and defined, monitoring and evaluation is used, however it is viewed more as tool designed only for initiating, implementing and managing a change.	PM is systematic, it is conducted very critically and there is a high connection between project budget and milestone schedule. Also different ways and styles of monitoring and evaluation were used.	PM is not systematic. Some kind of planning and reporting is implemented but only 4 times a year when required by the donor. The subcontractor organizations are monitored but very rarely, only upon donor's requirement.	The only tools of PM used were plans and reports that are done only 4 quarters a year as they are demanded so. No monitoring and evaluation is practiced, yet after the training it is considered to be as good tool. Yet, their programs are perceived as having small constituting elements.
<b>Index</b>	4.5	4.6	2.3	2.6
<b>RANGE 1-5</b> (1-unsystematic, 5-systematic)				

### Forth criterion: PM is Standardized throughout the whole organization

<b>Type of organisation</b>	<b>NGO</b>	<b>IO</b>	<b>PIU</b>	<b>Ministry</b>
	PM is standardized throughout the whole organization, but	PM is standardized with the organization, the same	PM is not a standardized method; the significance of this criterion is	PM is not standardized, however, it is considered to be useful in case



	they lack practical knowledge how can this be achieved in face. Therefore their success in this respect is explained as a more instinctive process because NGOs are comparatively small and are mainly critical on many criteria, not to end in failures.	method is used in different departments, and no extensive changes are permissible.	not even perceived. No importance is attached to the integrated activity throughout the departments. However codetermination of objectives is viewed as very difficult but a possible process.	standardization is applied. Yet there is no clear vision how this can be achieved.
<b>Index</b>	5.7	6.1	3.5	4.6
<b>RANGE 1-7</b> (1 - non-standardized, 7- standardized)				

Finally to check the hypothesis and find the overall effectiveness of project management in given organizations the results were added per criteria as presented in the table below:

<b>Criteria (C)</b>	<b>Overall Effectiveness of PM (C1+C2+C3+C4)</b>
<b>Type of organization</b>	
<b>Ministry</b>	Only a few weak PM techniques are used. The overall understanding of PM among the staff was sufficient, yet what they lack is a clear vision how to achieve on what is intended. They are eager to learn, take part in trainings, use a strategy, departmental work plan, yet they lack many modern techniques of PM, even computer skills and internet use was absent that has its secondary impact on the skills of employees. The knowledge on PM was proportional and gradually decreasing according to their positions, (head of department was more knowledgeable, than leading specialist, etc.). In the budget only financial means and activities are planned, there is no time dimension in the budget and the resources are stable and always given. The leading specialist in Financial Department mentioned that he has no time for trainings and has a lot of work to do. All in all it is considered to be somewhat successful.
<i>Ministry Index</i>	15.5
<i>Own evaluation</i>	-
<b>NGO</b>	Basic PM principles and techniques are used, which as the chairperson described is due to the fact that NGOs are mainly functioning

	due to the funds of donor organizations, which put also obligations on them to follow the norms that are accepted for them. Consequently, in a course of a time they adopt these tools, get used to them, and see their effectiveness and use in their overall management practice. The only problem that arises here is the lack of funds and impossibility to carry out the many things that are considered to be useful. PM is characterized as successful.
<i>NGO Index</i>	22.375
<i>Own evaluation</i>	4.8 out of possible 1-5
<b>IO</b>	A full and complete use of PM techniques has been recorded. New IT software is used, like “Atlas” system for financial report, or Management of Information Systems, etc. Projects are in line with country strategy and individual action plans that are in line with the four priority areas that UN has adopted from the 10 millennium Development Goals. Very detailed planning is being implemented, like formulation of project justification, then its design with triple resource allocation plan. After the fund raising project document or memorandum of understanding is signed. Flexible management is in place to manage change due to monitoring and evaluation for effectiveness. Each project has its indicators towards which it is evaluated by outcome board composed of independent experts. Regular reporting “keeps the project on track” also discusses the issues and future plans as well as risks connected with implementation. PM is considered very successful.
<i>IO Index</i>	24.498
<i>Own evaluation</i>	4.6 out of possible 1-5
<b>PIU</b>	No specific PM tool is used. Only work plans are attached to the contracts with the subcontractor organizations as donors require doing so. However the connection between the project, its strategy, goal, activities and deliverables is well seen. Trainings are considered important yet no initiative is done for that. Management is not systematic and standardized. Definition of mutual goals and methods seems almost unattainable. Management is unintentional.
<i>PIU Index</i>	11.999
<i>Own evaluation</i>	3.5 out of possible 1-5
<b>RANGE</b> for “overall effectiveness” (C1+C2+C3+C4) index is 4-26 (4-least effective, 26-most effective) and for “own evaluation” is 1-5 (1-least effective, 5-most effective).	

To make the indices of the “overall effectiveness” comparable to that of “own evaluation” both of them were converted to percentages. What is necessary to note in this respect is that those organizations (IO) that had an actual high index of effectiveness represented low scoring in their own evaluation. The situation was the same also for the contrary situation; the organization (PIU) which had the lowest score for the effectiveness demonstrated such a high percent of own evaluation as 70%. So, it is worthwhile to mention

in this respect that self-criticism is of use for Armenian public organizations. Thus, these results are presented in a separate table.

Actual effectiveness versus own evaluation of effectiveness:

<b>Type of Organization</b>	<b>“Effectiveness Index” (range: 4 - 26; 4 - least effective, 26 - most effective)</b>	<b>“Effectiveness Index” in % (% is calculated from the total possible points)</b>	<b>“Own evaluation” index (range: 1 - 5; 1 - least effective, 5 - most effective)</b>	<b>“Own evaluation” index in % (% is calculated from the total possible points)</b>
PIU	11.9	46%	3.5	70%
Ministry	15.5	60%	N/A	N/A
NGO	22.3	86%	4.8	98%
IO	24.4	94%	4.6	93%

Thus, as it is presented in the table there is a strong difference on overall successful project management between the studied four types of organizations. It is interesting to note that the final numerical results show close or similar numbers for “state originated” organizations (PIU 11.9 and Ministry 15.5) and for “non state originated” organizations (NGOs 22.3 and IOs 24.4). This confirms the theoretical approach of Kerzner (2003) about the contractual relations of organizations and the way they manage the projects. Yet, the hypothesis of this research that predicted the NGOs to have highest effectiveness in PM followed by IO, PIU and then the Ministry found no support. According to the results of the study it is the IO that was most effective in project management, followed by the NGO, Ministry and the least effective one was the PIU.

## **Conclusion and Recommendations**

The theoretical approach of Kerzner (2003), Brinkerhoff 2002 and Tvedt (1998) found no support in the results of this study. Below, some speculations and possible explanations are presented:

- IO turned out to be the most effective because of the long-term expertise, resources and capacities that possesses.
- NGOs generally may have a leaky foundation, may lack resources and constant funds which may put them in a condition of being in regular search for funding, tailoring their activities to the grant proposals and thus diverting from a general organizational strategy.
- PIU in its style of management acts more as state organization whereas on the basis of its formulation it is supposed to be more like in the style of IO management. Sometimes it is even unknown how the PIUs are established and selected. For some PIUs there were tenders and competitive selection but this case is not so wide spread.
- Ministry is on the way of improvement, there are lots of trainings for the Ministry staff to improve their skills, yet the issue is that the staff itself does not find time to participate in the trainings because of the lot of paperwork that they have to do.

In sum, NGOs, PIUs and Ministries have place to improve and should pay more attention to their overall management, policies and procedures. Particularly there is a great need for them in trainings to raise their skills and capacities. Life long learning and training is the best remedy for capacity rising (Kerzner 2003).

Moreover, these organizations have to introduce project management techniques that may seem innovative for Armenia but they are wide-used in the developed countries. Especially state sector needs to be improved to increase their efficiency.

There is a need for scientific approach in handling project management. This can be facilitated by providing meaningful information on recent literature and applications in the subject (Kerzner 2003).

The discussed all four types of organizations should carefully track PM practices that they use. It is necessary for Armenian public organizations to acquire and improve IT skills, online techniques and tools as a key to effective management. Kerzner (2003) points out that project executing organization should be encouraged to use network planning techniques.

Furthermore ideal PM is when the project is monitored and not once a year but on an ongoing basis. Therefore, the project managers should allocate more time and efforts towards carrying out monitoring. This is also emphasized in PRSP report that it is recommended for the government of Armenia to put “strong emphasis on monitoring and evaluation” (2005, 7).

The reporting system of the project implementation should meet at least minimum set of standards permitting effective corrective actions. Specific formats should be designed to suit the reporting needs of different levels of management (Kerzner 2003).

Finally, the main functions of project management, namely, planning, scheduling, budgeting and control should be understood and the related responsibilities should be clearly assigned (Kerzner 2003).

This research has certain limitations. The most important of them is that the results of this study cannot be generalized because it is a non representative study. Yet it may add some insights to the studies on Armenian public organizations and serve as a small but very useful investigation about the current public organizations in Armenia, the way they manage their projects and the tools they use. In addition, this study can guide the initiation of a wide-scope research on the given topic, the findings of which can be generalized.

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## Appendix A: List of Interviewed People

### Ministry

Samvel Pipoyan	Head of Vocational Education Department, Ministry of Education and Science of Armenia
Aida Harutyunuan	Chief Specialist, Vocational Education Department, Ministry of Education and Science of Armenia
Mariam Movsesyan	Planning and coordination specialist, Vocational Education Department, Ministry of Education and Science of Armenia
Hayk Hovhannisyan	Chief Specialist in Financial Economic Department, Ministry of Education and Science of Armenia

### PIU

Robert Harutyunyan	Executive Director, Social Educational Project Implementation Unit
Suren Saghatelyan	Chief Specialist, Social Educational Project Implementation Unit
Karen Gevorgyan	Leading specialist Social Educational Project Implementation Unit
Lusine Movsisyan	Financial Assistant, Social Educational Project Implementation Unit

### NGO

Arevik Sargsyan	President, Adult Education and Life Long Learning Association
Aram Avagyan	Founding Member, Adult Education And Life Long Learning Association
Nazaret Nazaretyan	Programs Coordinator, Adult Education And Life Long Learning Association
Lilit Beglaryan	Financial Assistant, Adult Education And Life Long Learning Association

### IO

Garik Hayrapetyan	UN Assistant Representative
Karine Simonyan	UN Vocational Project Coordinator
Lilit Dadikayn	UNDP Project Assistant
Nune Berberyan	UNDP Finance Associate



## Appendix B: Questionnaire

1. Our projects finish mostly:  
 Ahead of time  Just on time  A little late  Fairly late  Very late
2. Our projects mostly come in:  
 Under budget  On budget  Over budget  Way over budget
3. Key resources complain of being overloaded with work:  
 Rarely  Sometimes  Frequently  All the time
4. Proper planning and scheduling of resources to meet task demand is:  
 Very difficult  Difficult  Acceptable  Easy
5. In the end, the project deliverable:  
 Exceed expectation  Meet expectation  Below expectation
6. What success criteria can you mention for project management?
7. Do you consider that necessary project time, cost or resources have any role in determining project success?
8. What do you think project management success depends on?
9. Which project planning methods do you use? ( PERT/CPM  Critical Chain  
 Simple task list  Bar/GANT chart  Force field analysis  No formal process  
 Other
10. Is a milestone schedule or budget is a type of Project Planning?  Yes  No  
Is identification of major project goals & objectives important for the project? Why?
12. What connection do you think there is if any between project deliverables with its goals and objectives?
13. Do you think that project management is only a tool to be used in some projects or it is a strategic tool?

14. Do you use PM practice when it is required or it is necessary for the long term objectives of your organization?

15. When is it important to define the duties and responsibilities of the project staff?

16. Do the projects that the organization implements have any connection with its mission?

17. Do you think that strategic management is important for your organization?

18. Do you see any connection between each project that you implement and the future of your organization?

19. Is it worth to make investments in research and development or new team members of the company?

20. How many times do you think planning need to be implemented?

What connection do you see between the project and its small elements?

22. In your projects can you clearly define when the element is complete?

23. Do you think if there is a need to turn to project goal setting, monitoring, etc for many times?

24. What is more essential for you regular review of project lifecycle or just their situational definition.

25. Do you think that in an organization an escalation scenario must be defined, and also agreed upon with the project managers and heads of departments? Why?

26. Should the project management process allow room for maneuver for individual changes?

27. Perhaps every department should have unlimited authority to independently use the method s/he finds appropriate.

28. Do you agree that when a person is assigned to a clearly defined area of authority and is able to make unrestricted decisions, this freedom of choice will have a motivating effect?

29. Do you believe that co-determination on objectives is practically impossible?

30. Can commonly defined group values and a free flow of information help to avoid many conflicts?

31. Should members of the project group share the same method for project management or everyone can have his/her own style?