**A Report on**

**SOFTWARE PROJECT MANAGEMENT OF PIXOIT**

By Sinthila Rahman

**ACKNOWLEDGEMENT**

At the very beginning we would like to express our deepest gratitude to almighty ALLAH for giving us the strength and the composure to finish this dissertation task within the scheduled time.

I would like to express my extreme gratitude to MD. RAZIB HAYAT KHAN**faculty of Computer Science & Engineering** Department, who has given us the opportunity to make such a report for not only in this semester but also throughout my education life at AIUB by giving his valuable suggestions and advices at any time, at any situation. I would able to make this report effectively and properly only for his right direction.

Sincerely we would like to thank**Mr.Alamin**cont:+8801824225928**(web Developer,Pixo IT ltd.)** giving us the opportunity to collect our desired information about their software project management process formPixoIT ltd. I would like to thanks to them for his support, help, and encouragement during the data collection process for our report.

Thanks to our beloved classmate who help us during our class and out of class room. And also thanks to our family member’s for their support, patience and encouragement during our study.

**Introduction** :

Recently, there is a rapidly growth of digital startup companies in Bangladesh, but at the same time many of which are not successful. One of the main factors is the implementation of the project management related for product and services. This paper discusses how project management as a model able to increase success rate of digital startup company. The research data was obtained from a questionnaire with the criteria of the company in the sector of software IT company. In this study, researchers conducted a test model of project management combined 10 knowledge areas of Project Management with the Triple Constraints using smart PLS approach Start Equation Model (SEM) to determine the model tested is significant with the data available today can improve a project's success digital start-up company. Project management is an essential activity across several areas, including Software Engineering. Through good management it is possible to achieve deadlines, budgets goals and mainly delivering a product that meets customer expectations. Project management activity encompasses: measurement and metrics; estimation; risk analysis; schedules; tracking and control. Growth of startup companies in Bangladesh is lacking and left behind from the other Asian countries. Therefore, to many factors which are still not ready for startup ecosystem in Bangladesh.

**OBJECTIVES OF THE STUDY:** In software industry there are many startup software farms that are followings several techniques of general software project management. There are many project management processes in software engineering, different startup companies are following different process for their software project management. In this report we are collecting data about the project management process of a startup software company.

We tried to know about their planning, schedule estimating, cost, quality assurance, quality control process, successful projects and failed projects. Why project fails or the reason behind the project failure, which project management process they followed in those failed projects, which project management process is followed in successful project, there employee management process who are working in a project, Their customer relationship management process.

The main objective of this study is to know about their management process of that whole farm. They are successful or not and reason behind success or failure.

**SIGNIFICANCE OF THE STUDY:** This study makes a contribution to both theoretical and practical knowledge on project management process of startup Software Company. By reviewing and analyzing the previous studies on success and failure of project management process of startup Software Company.

In this paper we aim at identifying the reason behind success and failure of project of startup Software Company. And mapping them to body of knowledge area and categories describe both state of art and graph in research on project management process of startup Software Company.

During this study we tried to investigate how project are manages by startup Software Company. Their management process in critical condition, their customer relationship management, employee management, project handling, and success/failure etc. which gives us a practical project management process idea on Startup Company.

Though this research or data collection process about a startup software companies project management will gives us a practical or batter guideline like how to manage a project successfully, which policy we should use in which condition in our future. In future we will be benefited by this data collection.

**METHODOLOGY:** The data for this research paper was collected form **Pixo IT ltd. Bangladesh** which is a startup software company. Here We used primary data collection method for this research.Bydirect meeting or phone calls to the company’s web developer or project manager.

Researcher also arranged interview sessions over telephone with surveyed company’s personnel to know the actual process capability of the company.

A set of open-ended questions were initially preparedand later a set of specific questions on software project management process were prepared as data gathering techniques. Researcher asked the same set of questions during the phone

Question sets were related to software project management process familiarity, their risk management, planning, schedule, estimating, cost, quality assurance, and quality control process, how they collect customer requirement, successful projects and failed projects. Why project fails, employee management, customer manageent. The data collection technique that is used in this study is questionnaire. Each question of indicator from variables of project management, which assessed by respondents, classified into four alternative answers using ordinal scale that describes the respondents’ opinion. This study consists of ten independent variables, which came from 10 knowledge area project management (integration management, scope management, time management, cost management, quality management, human resource management, risk management, communication management, procurement management, stakeholder’s management) and dependent variable is Quality of Project, while the intervening

variable is triple constraints (scope, time, cost).

**Concept and Defination**  
2.1 SOFTWARE PRODUCT AND PROCESS

Software product:Software is defined as instructions (computer programs) that when executed provide a desired function and performance, data structures that enable the programs to adequately manipulate information, and documents that describe the operation and use of the programs (Pressman, 1997).

Software is a logical rather than a physical system element. According to Pressman (1997)

a software product has three characteristics.

* Firstly, software is developed or engineered. Itis not manufactured in the classical sense.
* Secondly, software is not “worn out”. It is notsusceptible to the environmental condition which causes hardware to be worn out, but itmay deteriorate.
* Finally, most software is custom – built, rather than being assembled fromexisting components. In fact, with a few exceptions, there are no catalogs of softwarecomponents. It is possible to order off-the-shelf software, but only as a complete unit, notas components that can be reassembled into new program.

A Software is a set of executable computer readable files bundled together and executed as a single program that directs a computer's processor to perform specific operations. A Software Product is tradable (off the shelf or otherwise), identifiable (licensed), and countable (inventoried – physical boxes or virtual instances). COG-TRIP test is used to distinguish between software services and Software Products.

**2.1.2 Software Process:**There are some different definitions of the software development process. According to the Institute of Electrical and Electronics Engineers, software engineering is (1) the application of a systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software; that is, the application of engineering to software, and (2) the study of approaches to application (IEEE, 1993). A software

**Review of Empirical Studies:**

**Software Project Problems:** Software projects are similar to traditional projects in the sense that the sametypes of problems affect them both. However, the difference in managing the

Problems lie in the approach that you take to the specific issue.

We can classify the problems that affect software projects into the following fourcategories:

1. People-related problems
2. Process-related problems
3. Product-related problems
4. Technology-related problems

**People-related** problems in a software project are:

**Low motivation**: Lengthy projects, complex activities and scarce resources often decrease the motivation level in a software development team. However, project manager need to lead in such a way that the team is constantly motivated to do a good job.

**Problem employees**: Some members of any team always create a problem. For examples, an employee may carry a ‘holier-than-thou’ attitude. Problem employees raise the chances of conflicts and differences of opinions within the development team. They lower the efficiency and productivity of the other team members and make it difficult to meet the objectives of the software project within the specified time.

**Unproductive work environment**: The work environment is a major factor that affects the productivity of the development team. For example, a noisy or cramped workspace decreases the motivation levels of the employees. Similarly, unfriendly organizational policies also lower the motivation of the team members.

**Inefficient project management style:**The project manager needs to lead by example. The team members absorb the work culture, work ethic and attitude of the project manager and implement it in their work style.

**10.Planning Factors and Performance:**

Project planning is the first stage of a project. Planning was implemented by the project manager.

**Defining the Customer Requirements, Scope and Objectives:** Based on the customer proposal, the initial requirements were defined. In the initial meetingsbetween the client and project team the scope and objectives were identified. The project team also set their own objectives, such as return from the project, and to gain potential customer from other hospitals through developing this software. Although both sides obtained an agreement for the general objectives of the project, there were still differences in defining thespecific features of the software.The main objective of the project was to satisfy the customer. To evaluate the project results, many quantitative criteria were identified.

**Identifying the Project Activities and Estimation:**Based on the proposal of the customer the product specifications and project activities were defined.The team leader defined and estimated the human resources needed for analysis and design, coding, testing, and deploying.

**Identifying the Project Activities and Estimation:**Based on the proposal of the customer the product specifications and project activities were defined.The team leader defined and estimated the human resources needed for analysis and design, coding, testing, and deploying.Project time management includes estimating how long it will take to complete the work. Developing an acceptable project schedule, and ensuring timely completion of the project. Five main processes are involved in project time management: define activities, sequence activities, estimate activity resources & duration, develop schedule, control schedule.

**Identifying Activity Risks:**In this plan, the potential risks were listed. The solutions to prevent or overcome these risks were proposed in the plan. The risk management plan was reviewed and updated weekly. Project risk management includes identifying, analyzing, and responding to risks related to the project. Five main processes are involved in project risk management: plan risk management, identify risks, and perform qualitative & quantitative risk analysis, plan risk responses and control risks.

**The evaluation of planning performance and project outcomes:** The first isthe analysis and defining of product specifications. The team leader evaluated the customer requirements are understood but defining the product specifications are not very good.The second is the estimation of effort, time and cost for the project. The third is scheduling the project which defined the timeline with important milestones for the project. The last is risk analysis. Project outcome are evaluated in terms of project time, cost, overall success, financial and non-financial benefits.

**Factors influence the planning performance:** The team leader also confirmed the relationship between team member’s knowledge and experience in the analysis of requirements and for system development and planning. This influence however, is less important than customer involvement and project manager effort and experience. In a small project, the team leader is involved in both management and technical tasks. He takes the main responsibility for defining the customer’s requirement and product specification. The team members involved mainly in coding stage. For this reason the team leader is evaluated the factor of team member’s knowledge and experience in requirement analysis and system development in planning as not very important.

**CONCEPTUAL FRAMEWORK**

Startup Digital Project

Management

Successful Project

Triple constraint of project management

scope

Time

Cost

Quality

Fig. 1 Framework Model using 10 knowledge project management with triple

constraints

Figure 1 shows the relation between variables indirectly. In this research, the topic that will be examined in the indirect effect between variables, where the 10-knowledge area project management can influence triple constraints. Then, the tripe constraints influenced quality of project