CHAPTER I INTRODUCTION

I.1 Background

Project is temporary, to which, it has a beginning and an end (Turner & Mu, 2003). By this definition, a project must stick on a timeline that is signed on an underlying contract by the project manager, along with the goals approved. In order to successfully achieve the goal of the project, one must carefully manage every resources involved in it. This can actually be associated with project management as Mayor et al. (2006) stated that it has become an important part of any organizations. However, it is a common sense that there is no such thing as success project by applying a particular method or organization structure.

Basically, a project is considered success as it has met its goals and objectives. In the context of project management, success is about to fulfill the planned objective and bring satisfaction of the project into what the stakeholders expected. This includes getting it within deadlines and budgets (Farrokh & Mansur, 2013). However, Gomes et al. (2016) added in their research that success is perceived differently by the various participants involved in managing projects. Yet despite the fact that there may be differences in project management approaches, most authors agree about the inclusion of cost, time and quality as criteria for measuring progress in achieving the objectives of a project (Atkinson, 1999).

As a matter of fact, project's succession would leverage its profitability through competitive advantage (CA). Farrokh and Mansur (2013) in their literature stated that for any organization, gaining CA and lucrative profits go side by side because only CA can assure long term existence of the organization. In addition, a competitive advantage allows for market dominance or strategic advantage (Jugdev & Thomas, 2002). It involves doing different activities from rivals or similar activities differently (Porter & Roach, 1996). This is because CA involves a focus on the firm's internal assets and connotes innovation and creativity in terms of market positioning (Jugdev & Thomas, 2002). This makes organizations always remain in pursuit of gaining CA through various means including, but not limited to, financial investments, launching novel products and services, aggressive marketing campaigns and many more (Farrokh & Mansur, 2013). It then makes

perfect sense to claim that efficient project management and CA for organizations are strongly correlated.

On the other hand, a project is considered to be a failure when it is unable to meet the goals and objectives of the project. Some projects might be assumed failed if it occurs to be over budget, exceeds the project due date, and does not meet the stakeholder's requirement (El-sokhn & Othman, 2014). In addition, Stojcetovic et al. (2016) show that some causes need to be solved in order to solve the rest of other causes of project failure. They provide 10 most causes of project failure that frequently occur in a project in table 1. In addition, Pareto analysis is then applied into the data in table 1 so that project managers could focus on which causes they should take into account. The result of the Pareto Analysis, based on the Pareto Diagram in figure 1, shows that there are 5 causes of project failure, which represents the 20% of the causes, that need to solve the project failure problem to 80%. Those 5 causes are insufficient resource, poor project management knowledge, poor communication, poor budgeting, and lack of user involvement.

Table I.1 Causes of Project Failure
(Stojcetovic et al., 2016)

Causes of Project Failure	Frequency	Percent	Cumulative Percent
Insufficient resources	102	19.47%	19.47%
Poor project management knowledge	90	17.18%	36.7%
Poor communication	83	15.84%	52.5%
Poor budgeting	80	15.27%	67.8%
Lack of user involvement	61	11.64%	79.4%
Unprofessional project manager	30	5.73%	85.1%
Insufficient time	22	4.20%	89.3%
Poor scheduling	22	4.20%	93.5%
Unclear project scope	18	3.44%	97.0%
The wrong project structure for the project	16	3.05%	100.0%
Total	524	100%	

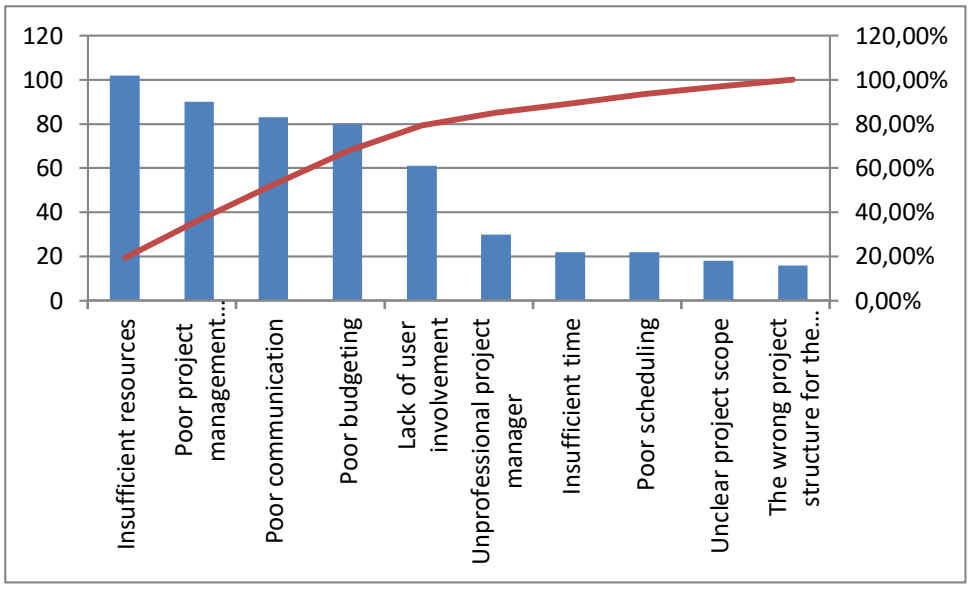

Figure I.1 Pareto Diagram of Project Failure Causes

Figure I.1 shows the Pareto Chart whose causes are plotted into it and it shows which causes that should be solved. In addition, those five causes exist from its root cause. For instance, insufficient resources occurred due to poor planning, poor resource management, and possibly budget cut due to customer demands which would affect the result of the project negatively. Poor project management knowledge occurred due to lack of project management training and the project team seems to not possess any clear understanding upon their roles. Poor communication occurred due to the ineffective communication between project manager to the team and the project sponsor. Poor budgeting occurred due to the lack of assessment of the funding necessary in the planning process, to which it may be a problem in the execution. Lastly, lack of user involvement Experts see this as a high risk events (Shahhossein et al., 2017).

Risk itself means something uncertain that may happen during the execution of a project. It may have a negative and a positive side of impact (PMI, 2017). The negative impact may appear to be threats, such as adding more cost. Meanwhile, many opportunities would be its positive impact, such as time efficiency and reduced expenses. In the case above particularly, it can be interpreted that such causes lead to a negative risk. The impact to risks may vary, depending on many aspects, including the sector of the project. Especially in construction sector, some impacts such as over cost and late completion are very much likely taken into

account due to the bad reputation of construction projects to deal with risks (Akintoye & MacLeod, 1997; Szymański, 2017).

This indicates project failure is a phenomenon that the impact is critical that every project manager avoids. This is as a consequence to the fact that million dollars are frequently wasted as the event of project failure rates occurred – which is what companies and governments all across the world face each year (Damoah, 2015; Discenza & Forman, 2007). As a comparison, according to Bertelsen (2003) construction projects happen to be in plan failure, delays and cost overruns more than in successes.

Table I.2 Internal Data of Company XYZ

No	Project	Beginning TOC	Progress		Requested TOC
			Plan	Real	
1	Pengadaan dan pemasangan pekerjaan FTTH PT3 tahap 2 All Witel Bandung dan Bandung Barat Nomor SP K.Tel.000415/HK.810 /DR3-10000000/2018	June 30th 2018	90%	44.29%	July 31st 2018
2	Surat Pesanan pengadaan dan peasangan pekerjaan FTTH PT3 tahap 2 All Witel Non Bandung Nomor SP K.Tel. 000414/HK.810/DR 3-10000000/2018 Tanggal 21 Februari 2018	June 30th 2018	90%	47.83%	July 31st 2018

One of the State-Owned Enterprises that focuses on telecommunication is now on an effort to make all of its customers use fiber optic for a faster internet access. The company targeted that in 2020 all of its customers uses fiber optic instead of copper wire (Panji, 2015). This decision is based on the beliefs that the technology could reach 7 million houses across Indonesia. This idea turns into a project that is conducted by its subsidiary: company XYZ.

Company XYZ had an underlying contract with its father company to conduct a project with an objective to install the fiber optic to houses or usually called as Fiber To The House (FTTH) in Bandung. However, due to several reasons,

such as the material that had not yet been produced and long leaves of the employee, the material to install FTTH is late to deliver. This event makes the project failed to accomplish what has been planned at the beginning. Table I.2 shows the progress of the project FTTH. It can be seen that the company was unable to accomplish the TOC (Time of Completion) that is planned to 90% up to June 30th 2018. Instead, the company was only able to accomplish to 44,29%.

Table I. 3 Detail Description of Lateness Duration of Company XYZ

No	Project Name	Region	Location	Initial TOC Date	Amount of Obstacles	Time Extention Proposal
1	K.TEL.415 (FTH-PT3) STTF	Bandung	Apartemen Technoplex	June 30th 2018	7 work days + 24 work days = 31 work days	Jule 31st 2018
2			New Feeder CJA 5 ODC			
3			1. Jalan Pelindung Hewan 80			
4			7. Perumahan Jati Permai 80			
5			DGO FAR/FCFCluster Jalaprang Sidomukti, sidoluhur			
6			Kebon Lega			
7			Situsaeur			
8			Panyawangan Cluster Cempaka Tahap 2			
9			Pesona Ciwastra Permai			
10			Akita 1 dan 2			
11			Mengger - Sukaati			
12			Jl. Bojong Loa			
13			Jl. Lio Genteng			
14			Cigondewah Kidul			
15			Ds. Cigondewah Hilir			
16			Ds. Margahayu Selatan			
17			Ds. Margahayu Tengah			
18			Ds. Sulaeman			
19			Babakan Sari			
20			Babakan Surabaya			
21			Cikawao			
22			Jl. Negla			
23			Terusan Sutami			
24			Setraria			
25			Setrasari Kulon			
26			Lembah Nendeut			
27			TC Jl. Dulatip (DCLP)			
28			TC Jl. Otista (ODC-LBG-FCA)			
29			TC Jl. Tamim & Otista			
30			TC Jl. Lengkong Kecil, Jl. Kasim			
31			Jl. Soekarno Hatta ODC-CJA-FDH			
32			Jl. Soekarno Hatta ODC-CJA-FBF			
33			Tambahan Kawasan Industri/Arah SMPN 1 Bojongsoang			
34			TRG - FCT - Kliningan - Salontongan			
35			FCS - Situ Lembang & Komp Mandiri			
36			TRG - FCQ - Rajamantri			
37			TRG - FCP - Kiara Condong			
38			TRG - FCK - Kawaluyaan			
39			TRG - FCJ - Palem Raya			
40			ODC - TRG - FCH - Sanggar Hidup			

The case of project failure like company XYZ can be solved with the involvement of Project Management Maturity (PMM). PMM itself is an organizational condition that allows successful projects (Souza et al., 2012). The improvement in successful projects is originated mostly from the increasing

maturity of the organization (Skulmoski, 2001). In addition, a success or a failure of a project is claimed by measuring the internal-aspect performance of the project team, of which it includes how the project should stay on track on its schedule, budget, and technical purpose (Pinto & Mantel, 1990). Souza et al. (2012) added that the assessment of PMM is a growing practice in organizations and it can be verified with the development and use of several models for this purpose. Higher levels of maturity generally lead to better project results, which can be associated with better cost and schedule results (Dooley et al., 2001; Gomes et al., 2016). And finally, as an organization grows in project management maturity, it obtains a better project management performance at a lower cost – which in turn, can provide competitive advantage to the organization in the long term (Farrokh & Mansur, 2013). This implies that whenever project maturity assessment is conducted in a project, the causes of project failure which are associated with risk might potentially be decreased afterwards.

The definition of maturity when implemented into organization itself might refer to a state where the organization is in a perfect condition to achieve its objectives. Project maturity would then mean that the organization is perfectly conditioned to deal with its projects (Andersen & Jessen, 2003). However, in reality there is no such thing as mature organization which therefore leads to project success. As the success of a project depends on the perception of a significant number of stakeholders, the absolute success of a project does not really exist, but only the perceived success (Gomes et al., 2016). On the other hand, there are just so many cases similar like project failure which resists organizations to grow. Hence, Andersen & Jessen (2003) in his research argued that there is a need of an effort to actually measure the maturity of an organization. This is also due to the lack of evaluation in organizations Since successful completion of projects plays a decisive role in maintaining CA for the organizations, so improvement of project management practices, such as project management maturity, will too (Farrokh & Mansur, 2013).

The project maturity itself has models which became an essential tool in assessing organization's current capabilities and helping them to implement change and improvements in a structured way (Jia et al., 2011). Cooke-Davies &

Arzymanow (2003) added that the usage of organizational maturity model has increased as it helps boost up and develop the project management organizational maturity. On many models exist in the PMM, this research focuses on the approach of Organizational Project Management Maturity Model (OPM3) with beneficial reasons on Project Risk Management as its specific focus.

Proposed in 2003 by Project Management Institute (PMI), OPM3 assists organizations to develop capability to support macro-business process in managing all projects, connecting them with the business strategy (Tobal et al., 2012). Thus it provides a systematic evaluation and improvement method for the organization from a single project to a portfolio of projects (Lianying et al., 2012). As a matter of fact, according to Silva et al. (2014) this model includes tools and methods that allow the continuous assessment, diagnostic techniques that identify potential problems and deficiencies within the projects as well as the detailed design of the improvements to be implemented.

I.2 Problem Formulation

Based on the introduction above, the problem formulation is described as follow.

1. What is the project maturity level currently of the company XYZ?
2. How is the analysis upon the result of tailoring compared to the maturity level of company XYZ?
3. What is the improvement plan that could be applied by company XYZ in order to improve the project performance?

I.3 Research Objective

Based on the problem formulation, the research objective is:

1. To measure the project maturity of Project Risk Management processes in company XYZ;
2. To determine the weight of each Project Risk Management process through tailoring process;
3. To produce a proposed improvement plan for company XYZ to be applied on its project.

I.4 Research Limitation

On this research, there are boundaries to give focus of this research described as follow.

1. This research focuses on project risk management performance of maturity.
2. This research focuses only on project domain.
3. This research focuses on Bandung region.
4. The improvement plan is proposed without any duration

I.5 Research Benefit

This paper provides some advantages that would be beneficial for any parties relevant to the topic, such as:

1. As a knowledge and a consideration for the company to evaluate the whole project management implementation;
2. To provide a better comprehension on the concept of project maturity model as a foundation to achieve a proper implementation of project management;
3. To figure out whether the project is inefficient or ineffective with the development process provided afterwards.

I.6 Writing Systematics

This research is elaborated to the writing systematics as follow.

Chapter I **Introduction**

This chapter consists of background on what causes this research is conducted. To be more comprehensive on the topic, a case study is described in this section as well.

Chapter II **Literature Study**

This chapter provides a literature that is relevant to the topic studied, gives an explanation on the previous research and discusses the importance of improving the management project aspect and its impact to the successful of the project.

Chapter III **Research Methodology**

This chapter is to explain the detail steps, such as conceptual model and problem solving systematics involving research initial phase, collecting and obtaining data process in order to achieve the objective of the research.

Chapter IV **Data Collection and Obtaining**

This chapter is to explain the process done on collecting, obtaining the data, and creating the result that would be able to answer the problem formulation.

Chapter V **Analysis and Recommendation**

This chapter is to give an analysis on the data that has been collected and obtained from the previous section and, hence, could be considered as company's recommendation.

Chapter VI **Conclusion and Suggestion**

This chapter is to give a conclusion on the entire research elaboration from the previous sections and suggestion for the next research.