

Insufficient project planning of the design and installation of photovoltaic units on board a ship may lead to the failure of the project.

This thesis shows:

- What needs to be done in order to have a proper project plan and what are the steps to be taken throughout the project that will lead to its success.

Chapter 1

Introduction

- The depletion of the world's reserves in fossil fuel has become a sad fact in today's world. Therefore, ANOK LINES S.A have decided to install photovoltaic units on board one of their ships.
- For this purpose they have hired the company I work for, OCEANIC TECHNICAL SERVICES CO, to carry out this project. Unfortunately things did not work out as expected though.

- Being the project manager of OCEANIC TECHNICAL SERVICES CO, means that my position is of critical importance, since I am the one who has to make sure that the project is successfully completed.
- That means that I have to be able not only to bring money into my company but also make sure that the company's reputation is enhanced.

- I have to display leadership or else my project team will not perform adequately and efficiently.
- Certain communicative abilities from my part are essential so that I can communicate my vision to my project team and the stakeholders.
- Perceptiveness is another quality that I should demonstrate from the beginning of the whole venture. I could predict any possible flaws that may occur throughout the project.

- The purpose of this study will be for me to create a model project plan, comprehensible even to the layman. The creation of such a model project plan is a difficult venture since it is about a project that has not been done before and it can be characterized as a novel project. A novel project cannot really be planned because it presents big complexities and certainly many unknown risks, that cannot be predicted beforehand.

Chapter 2

Problem Statement

- In this project my company had to use photovoltaic units to provide some parts of the ship with energy. This whole idea posed a personal challenge for me, since nothing similar had been done before, on board a Greek ship.
- Towards the completion of the project, the feedback I was getting from my team was not at all encouraging. The reports coming from the financial manager clearly showed that we were heading towards serious cost overruns.

- Communication among the project team members was not effective. The communication planning did not work and the proper data I should have got did not reach me.
- Indeed we were unable to complete it on time and within our budget.

Chapter 3

Review of Literature

- The themes the literature review covers are:
 - a. The importance of a formal and thorough project plan.

According to Kerzner (2006), the implementation of a carefully prepared project plan is of the utmost importance since it not only minimizes the uncertainties concerning the project's course and completion, but also improves the efficiency of the operation.

b. The need for strategic planning

According to Artto, Kujala, Dietrich and Martinsuo (2008), a project strategy is vital if we are determined to complete a successful project. Also they state that the project strategy shows first and foremost the overall goal of the project manager and the direction that he/she wishes the project to follow.

c. Managing the people

Flannes and Levin (2005) clearly state that if we want to ensure a project's success we should first of all establish the proper project team. The proper teamwork is dependent on this selection and can be guaranteed if the project managers chooses wisely.

d. Special equipment planning

According to Loch, Demeyer and Pich (2006), we cannot really plan a project when it comes to novel projects. A novel project, can present certain risks impossible to be predicted and too many factors that cannot be foreseen. However, the need for any project plan is necessary even if it may seem rather impossible to be prepared. That is because through a thorough project plan we can identify the possible risks of the project, evaluate them and attempt to prioritize them. It is the only way to solve any problems that may be presented.

Chapter 4
Methodologies and Procedures
Used in the Study

- The thesis presented here is a literature review. This writer has attempted to establish, through the respective bibliography, what has to be done before the beginning of a project and during its process as well.
- First of all, it should be noted that, I have chosen this specific topic as my thesis due to the personal experience I have had at my work place.

- Furthermore, all the books and articles and generally all the resources that were used for this thesis, came from the library of the City University, the Msc books and electronic libraries, as well. It should be stated that, after a thorough study that I have conducted, I found the suitable resources that have provided me with the knowledge of what makes a proper project planning which in turn can lead to a successful project.

Chapter 5

Results

- The problems that we had to tackle were related to the time frame of the project, the budgeting and the quality of the deliverables. Not only that but we also had problems with the communication - or lack of it - among the project team members who were involved.

- That obviously happened because the roles and responsibilities that each one should have in the project were not clear to them.
- The initial designing of the project team had not been the best possible one, meaning that the suitable persons were not assigned accordingly to the proper positions within the team.

- Another problem that we faced was the quality of the materials we used which, as it turned out was not the highest possible.
- Those suppliers involved did not have the suitable knowledge of the project and therefore provided us with low quality materials that did not meet the suitable specifications.

- Another problem that led to the project's failure was the wrongly planned time schedule.
- The lack of any milestones within the project that would set the necessary deadlines became painfully obvious especially towards the final deadline that we had originally set and of course were not able to meet.
- The project's time slippage was also caused by the already mentioned bad communication among the project team's members. Because of this, there was a considerable delay in the decision making when it came to the problems that we faced.

- Another problem that we faced was the overbudgeting.
- Replacement of the supplier also affected our budget. With the new materials of higher quality, the project cost became significantly higher as well, so there came the overbudgeting.
- Finally, the manpower that we had estimated we would need for the project turned out to be insufficient. Obviously, we found ourselves in the position of hiring more people since the ones who had started working on the project were not enough to cover its needs.

Chapter 6
Discussion, Conclusions,
Recommendations

- It is obvious that a proper project team should have been organized right from the start so that its members could co-operate harmoniously.
- If we wish to have a strong team that will be in the position of facing any problems presented and solve them successfully, we have to make sure that it goes through certain stages:

Forming

Storming

Norming

Performing & Excelling

- In order for a project team to be strong and work flawlessly the project manager should be able to explain clearly and remind constantly to them what is the project's goal, so that they never deviate from it.
- The project manager ought to show his/her trust and confidence to his/her project team. By doing this he will provide them with the confidence to make important decisions after having co-operated with each other in harmony.

- What should have been done, is clearly a proper procurement planning which plays a major role in the completion of the project.
- During the stage of the procurement planning, which must be done very thoroughly, we very carefully check and select the materials that are of the proper quality and will be delivered on time and on the pre-fixed price.

- The timeframe we had set our project, became another serious problem, since we had not established any milestones for deadlines throughout the project.
- Consequently, the original step we should have taken is to set milestones for our project. This way, even when problems were presented we would be able to spot them and tackle them on time, since the milestones would have made our deadlines very clear.

- Firstly, if we had selected the suitable supplier, through the proper procurement planning, we could have estimated the exact project cost.
- We should also have estimated a better Work Breakdown Structure (W.B.S), which could have enabled us to make a correct assessment of the days needed for each task and therefore the manpower we would need to work on it.
- Since it is almost certain that changes occur in every project, a change control process is very important. This process would have enabled us anticipate them and act accordingly so that we would not have jeopardised the cost or timeframe we had set.

- In conclusion, it should be stated that when it comes to a novel project, a proper project plan is of the utmost importance. Although this novelty means too many “unknown unknowns” and risk factors for the whole project, a very thorough project plan is crucial as this the only way that a project manager with his/her team can spot the risks and assess their consequence for the project.

- Throughout this study, it has been well established that a thoroughly prepared project plan is essential for the project presented and which has already been clearly recommended. Specifically, the proposed project plan has provided solutions for the problems that we had to face during its course and were related to its timeframe, its budgeting and the quality of the deliverables. Additionally, problems concerning the communication and co-operation within the project team.

PROJECT PLAN CHECKLIST

ITEM	ACTIONS	CHECK
Communication	Good design and organization of project team (Forming Norming-Storming-Excelling).	
	Clear roles and responsibilities or project team members.	
	Project Manager's trust and confidence in his/her team.	
	Clear constraints concerning the project scope.	
	Clear assumptions concerning the project scope.	
	Well defined project's criteria.	
	Project Manager encouraging his/her team and reminding them of project's objectives.	

PROJECT PLAN CHECKLIST

Procurement	Arranged meetings with everyone involved regarding the contract (explaining and clarifying).	
	Thoroughly prepared contract.	
	Detailed procurement Planning.	

PROJECT PLAN CHECKLIST

Time	Set milestones.	
	Project team's ability to make right decision fast.	
	Change control process.	
	Estimation of work effort.	
	Estimation of duration each project's task.	
Cost	Careful selection of suppliers.	
	Well prepared W.B.S with subtasks.	
	Change control process.	
	Estimation of work force.	
	Estimation of duration of each project's Task.	

- This template can be used by the Project Manager at any time of "crisis" that may occur during the project and help him/her decide what needs to be done quickly and efficiently when such actions are needed.

THANK YOU
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