ANALYSIS AND THOUGHTS ON PROJECT TITANIC

INTRODUCTION:

The year 2012 marked the 100th anniversary of the sinking of the Titanic on its maiden voyage on April 14, 1912 [5]. It is hard to believe that this was more than a century ago. The project titanic was and still is considered as one of major case studies from a project management point of view. From its conception in 1907, to its designing, to the beginning of construction in 1909, to its maiden voyage in 1912, the titanic and the project as a whole went through many changes. The main focus of this paper will be these changes that took place in various phases of the project, what was the nature of these changes, the reasons for which the changes were suggested, the impact that it had on the overall project and the end product, and also how they relate to or differ from changes in modern day IT projects.

BACKGROUND:

The idea of the Titanic was conceived by J. Bruce Ismay and William James Pirrie at a casual dinner in April 1907. They were also the major stakeholders in the project. Other stakeholders were Harland-Wollf (constructors), Edward J. Smith (Captain), Alexander Carlisle and Thomas Andrews (Designers). As suggested in [3] the Titanic and its sisters Olympic and Britannic, at its core, were supposed to be ferry services provided by White Star Lines built to compete with their rival Cunard lines class of luxury ships: RMS Mauretania and RMS Lusitania. Thus, in terms of modern-day IT projects, it can be considered as Software as a Service (SaaS) type of project. So, factors such as lifespan of the product, maintenance of the product and avoiding service disruption were equally applicable to the project Titanic.

ANALYSIS AND THOUGHTS:

The Olympic was the first ship that was built amongst the three sisters. The Olympic was designed by Alexander Carlisle (structure) and it shared its design structure with the Titanic with additional changes and refinements made by Thomas Andrews [2]. The design for such a massive ship building project is usually heavy and it involves limited, or almost no feedback. According to me, this design strategy is not a good option for modern IT projects. Feedback from major stakeholders is very important as they have a big picture view of the project. The designer might miss a key feature in the design phase and with no feedback in this phase, it would be difficult to later incorporate that key feature into the design. It would need additional resources and potentially delay the completion. The ships were designed as a whole system (like a top-down approach but not exactly that) and did not allow for changes to be made in it. Following such a rigid design strategy could prove to be potentially dangerous for the project as it may hinder the process of system integration and deployment.

The original designs and overall intention behind these ships was to incorporate the latest technologies to ensure a safe ferry service [2]. But in order to compete with the rivals, White Star Lines put pressure on its architects and designers to remove the safety features and introduce the element of luxury in its designs. Some of the changes enforced were, reduction in number of life-boats (minimum number legally required), enlarging deck size for accommodating more people at a time (not safe at all) and reducing number of water-tight compartments below the deck which reduced the bulkhead distance to just ten feet above waterline. It appears to me that this decision was an impulsive one. The Delphi technique could have been used here. The decision to remove safety features for luxury was a major one. I feel that experts could have been consulted whether it was acceptable to compromise safety for luxury. If implemented, what would be the implications in terms of feasibility (technical, commercial and financial), what would be the possible risks involved and how will the schedule be affected. Holland mentions that often in an IT project, many non-functional requirements get ignored [1]. This is because more often than not, these changes are not visible and cannot be observed in the final product. In my opinion, the safety features in the Titanic could be considered as a non-functional requirement. It will not affect the ship’s working in any way. Luxury on the other hand, is something than is clearly visible and it became the main selling point later on, so it must have got preference over safety. I think that non-functional requirements are an essential part of a successful project and should not be neglected however minute they may be. Also, the idea that the ship was unsinkable was floating around in the news at that time. Although White Star Lines never claimed the Titanic to be unsinkable, there was a false sense of safety in this advertising campaign. This could have led the stakeholders to believe so as well and made it easier for them to decide on removing the safety features. Project managers must be wary of unrealistic expectations both internally and externally and quickly keep them in check before they grow into something that cannot be handled.

Another change that took place during the construction phase of the Titanic was the change in schedule. This was due to an external factor. In 1911, the Olympic had a major collision with RMS Hawke [4]. All the resources had to be diverted to the Olympic for damage control and repairing. This significantly delayed the Titanic’s schedule. This situation can relate to modern IT projects as well. There might be an emergency and the available resources might have to be shared with another project. Companies that have a matrix organization structure can deal with this type of situation by using the concept of shared resource pool. Also, as the Olympic and the Titanic shared base design, the flaws revealed from the Olympic accident should have been resolved in the construction phase of the Titanic, but the schedule did not have any slack period to review and implement the changes. So, in a way the warning signals from previous projects were ignored.

This delay in construction adversely affected the testing phase. The maiden voyage date had already been disclosed and delayed once already. World’s richest people had booked their tickets and White Lines could not afford to disappoint them [1]. As a result, the testing phase was cut short and apart from a few mechanical, functional and engine related tests, all other tests and sea-trials were called off. The maiden voyage itself turned out to be a sea-trial! According to me, this was also not a wise decision. In modern IT projects, testing prototypes, modules, functional requirements and the entire integrated system is very important. Appropriate test cases must be designed to ensure a robust system capable of handling changing environments, inputs and processes. Not testing the Titanic in real-world testing conditions in some ways contributed to its sinking in 1912.

After going through so many changes during the designing and construction phases, the Titanic was ready to set sail in April 1912 [1][2]. The maiden voyage itself was one of the first times when the ship was going to be tested in open waters. At Queenstown, the last harbor before crossing the Atlantic, some final tests were conducted, one of which was the life-boat test [1]. The crew failed miserably at this test in terms of readiness and overall practical training. This is where documentation and training would have helped. Documentation of the processes involved in emergency protocol could have been used to train the crew beforehand. However miniscule be the task, it must never be assumed as “common knowledge” when documentation is concerned. I think this must have been the case for Titanic. Captain Edward Smith and his crew although experienced, were not familiar with the technology been used in the ship and were never properly trained to use it. It was assumed that when the time comes, the crew will figure things out on the go. As a result, the crew failed at the test. Even after this failure, no steps were taken to resolve this issue. In my opinion, documentation is the most underrated part of a project. But these are the guidelines that will help the user understand and experience the product better as well as explore all the features so that no feature remains hidden.

CONCLUSION:

In conclusion, the Project Titanic is a very intriguing case from a project management perspective. It highlights the importance of having a flexible plan which embraces changing environments, requirements, schedules and personnel. This can be easily related to constantly changing nature of modern IT projects. With the discovery of new technologies and advancements in the primitive ones, the project managers and stakeholders are under a lot of pressure to incorporate new features and technologies into their projects in order to be a step ahead of their competitors. The decisions made must be taken with utmost care and all the implications, costs and risks must be considered before enforcing them. Another takeaway from the Titanic project is the significance of testing phase in the project. The design of test cases must be thorough, insightful and must reveal bugs in the system. This will ensure a smooth deployment phase with minimal disruption.

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