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| SPM – Vasa - Assignment |
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## Introduction

On August 10, 1628, the Swedish Warship “Vasa” set sail on its maiden voyage. The ship sailed less than a nautical mile and then the warship toppled in a light gust of wind. Water poured in through the gun portals and the ship sank with a loss of fifty lives. The sinking of Vasa was a great loss for Sweden. Sweden was at war with Poland at that time and the ship was required for the War. It was an expensive and critical project for Sweden. Ship’s Captain survived the incident but still went to prison as the ship couldn’t be launched successfully. During the trial, NO one was found guilty of negligence as stated by the King. No underlying reasons for the sinking were uncovered and the disaster was explained as an act of God.

The lessons learned in this story could very well be applied when building large and complex systems of modern age.

## Question and Answer

1. **What were some of the major problems associated with this project?**

Following are some of the major problems associated with “Vasa” project.

1. Frequent change in scope and design
   1. Ships specification were changed from 108 ft to 120 ft in the middle
   2. From one gun deck to two gun deck
   3. Change in scope at a time when the woods were already cut for a defined specification
   4. Requirements for armaments to be carried went through quite a few revisions (from original 32 24-pounds gun to 64 24-pounds gun)
2. Lack of technical knowledge and specifications
   1. It was being built for the 1st time hence no one had the knowledge to change the course of action based on the changing requirements.
   2. No one had built a ship before with two gun deck and there was no specification available for the same.
3. Master shipwright Hybertson became ill and died.
   1. Project was handed over to Hybertson’s assistant Hein Jacobsson who had very little management experience.
   2. Hein Jacobsson did NOT had any detailed record or plan to start the project work i.e. there were no schedules, milestones or work plans available for Jacobsson.
4. No stable method to check sailing characteristics.
   1. 500 sculptures added to the ship raised its center of gravity which contributed to the ships instability
   2. No scientific method was available at that point of time to calculate ships center of gravity, heeling characteristics and stability. These parameters were gauged by trial and error method.
5. Testing of Vasa proved ship was NOT ready for launch.
   1. Vasa launched with known problems for the aggressive pressures from King as the test was aborted only after three runs otherwise ship would have toppled.
   2. Ship builders Jacobsson and his assistant were NOT present for the test.
   3. Crew member’s remark about the ships instability after the test was ignored.
6. **What lessons can we learn from sinking of VASA that can be applied to IT Projects?**

Following are the lessons learned which can be applied to IT projects as well

1. Schedule pressure is too high – which generally leads to poor project quality and failures.
2. Changing requirements - Architectural changes are good to absorb before the design is finalized or during the beginning of the project. Also, every time scope changes pushes the time and cost boundaries as well.
3. No project plan and documentation – There were no project plan and documentation prepared initially and when it was taken over by assistant then also no schedule, milestones & work plan were prepared. In the absence of project management experience by the new in-charge it is advisable to follow the bottom up approach of the development so that there would be a further chance for feature enhancements and to cope up with the new requirement changes.
4. High innovation - Innovation is good but something to try out in a crunch scenario can result in failure. Hence a quick POC is always good for the project. Also, continuous risk management and impact analysis for new innovations helps.
5. Requirements creep – Requirements usually creep in over the time for projects that run long. Therefore, initial requirement baseline should be available combined with proper risk management techniques.
6. Lack of proven methods – In this case, prototyping or incremental developmental methods are preferred.
7. Ignoring known issues – This is unethical to launch something with known issues when the product is safety critical. Also, Proper tests should be performed on the final product. Don’t ignore the outcomes of the tests as it may lead to the disasters.
8. Changing leadership in the middle of the project - This never helps, but to cover risks, building the secondary leadership from the beginning can help to cover the black swans like death of Master Shipwright.

## Conclusion

We can see clearly that Vasa was initially planned as small ship like other ships which existed at that point of time but slowly grown to a large project. The innovation for new changes which was never built during that time contributed to the ships instability factors and the project was a huge loss for Sweden.

We can also, observe that there were no interrogations during the trial on why Vasa was launched with known issues when this was a safety critical product. This is unethical to not to communicate the issues uncovered during testing to all the stakeholders when it’s a matter of life and death. This is the most important learning to be taken from this particular case.