Over the years, there have been several major software disasters, resulting from poor software project management, poor risk assessment, and poor development and testing practices. The results of the disasters range from project delays, project cancelations, loss of millions of dollars on equipment, to human fatalities[2]. It is important to study software disasters, to alert developers and testers to be vigilant, and to understand that huge catastrophes can arise from what seems like small problems[2]. A mega project is attributed to as a project that can, by its size and character, disrupt or change its own project environment[1]. Throughout, Europe and America gigantic or mega project failures have hit the news media often. In UK the BAE Systems in 2002, NIMROD Maritime Air Reconnaissance Project, Airbus A380, while in America such projects as Lockheed and Boeing F22 among others. All these projects failed to meet the key goals and results were catastrophic[6].

In the software discussion forum, Airbus A380 and other similar software disasters such as Boeing 737 MAX issues were discussed. Airbus A380 is the most complex commercial jet that was ever built by airbus and it is installed with 100,000 different wires, totaling 530 kilometers, in length, that perform 1,150 separate functions[3]. Airbus's next largest commercial jet, the 380 seat A340-600, has 60,000 wires[3]. There were many reasons provided by fellow peers with regards to the failure of Airbus A380 in the discussion forum. Some reasons included technical issues, management issues from the top as well as logistics and cultural issues.

I have provided my inputs and thoughts to Airbus A380 project issue in the discussion forum stating that the project location caused logistics difficulties, as constructed modules from different sites were sent to France for integration[4]. Also, resource leveling could have been done, by taking resources from where there was a surplus to where it was needed. When the project was behind schedule, there was no Project Management Office for integration of the schedule to identify the critical path, which will be followed by the management buy-in and eventually a recovery plan developed and implemented[4]. These lapses made the teams work under pressure to do most activities in an overlapping sequence, giving room to quality compromise. The complexity of operating from different locations without a unifying Project Management Office (PMO) caused the overlook of key critical issues which were not addressed at the right time; eventually, this lapse in coordination gave way to a more degenerated situation of significantly higher cost, as a result of the technical challenges[4]. A proper and well-structured project management system would have had the management get more involved in the project. Furthermore, the involvement of the leaders in regional politics, above the project took its toll on the collective project goal, by extension, the social-cultural aspect was affected, and the politics of divide that was practiced in the projects made the different workforce loyal to their immediate project and not the overall project. Each government came to the rescue of its own, rather than come together to find a unifying solution to the project as they had earlier. An intercultural session across the sites would have given the team a sense of unity[4].

The other reasons which I have not mentioned in the discussion forum included the technical issues. Technical issues such as wire shortage and poor designing by using older version of CATIA, a software commonly used in the aircraft design industry resulted in the failure to fit in the wiring process into plane halting the process and causing further delay and extra cost of over $6 billion rendering ineffective project management[5]. As I reflected on the issues that Airbus 380 faced in every project aspect, I felt that even-though technical issues did cause damage to the project management to a certain extent, technical issues can`t be faulted or blamed for the project failure entirely. It is easy to blame the project failures on technical issues however the root cause of the problem lies almost in every aspect of the project[2]. If indeed the software was critical to the integration and design of the aircraft …which it certainly was … then why was it not coordinated from the top[2]. After all, this is what the consortium was expected to do best. Could it be that management, although they succeeded in moving executives to a central location in Toulouse, failed to move the culture off dead center? The blame, as is often the case, needs to focus on management’s contribution to the project failure. As mentioned by my fellow peer Pallavi in the software discussion forum, I totally agree with the statement that she made on the most valuable and important lesson which is, organizational culture matters and without an effective culture project and their project managers are condemned to produce mediocre results or fail altogether.

I also agree with my fellow peer, Jhaanvi, whereby she discussed on the lack of communication across the concerned teams. The lack of communication during the project undermines the credibility of the organization performance as well as the employee motivation. This is attributed to conservatism which is the failure to consider and communicating new information or negative information during and after the project[5]. That being said, Airbus A380 started realizing and communicating its failure during the fall of 2016. Some authors claimed that the project managers were in denial of the facts surrounding the project[5]. Therefore, the failure to communicate and consider new and negative information during and after the project leads to failure of projects achieving its key goals[6].

In conclusion, good planning therefore means proper scheduling and workload assessments, without these projects become null and void. There is, of course, no doubt that cultural and behavioral factors are also highly relevant and affect the project completion process. Yet political influence and antagonism can easily be associated to a big hindrance in achieving organizational goal of the project. From the Airbus A380 experience it is important to note that although underestimation of complexity cost and schedule, failure to establish appropriate control over requirements, lack of communication, logistics failure, failure to involve stakeholders, address cultural change, poor oversight, unqualified workers, inadequate risk management, failure to address adequate project requirements and poor planning have been attributed to project failure, a great deal of responsibility falls to the role of the organization in ensuring the project is effectively achieved. The failure of the organization to manage its project equally results to the failure of the employees though most scholars have always pointed out that the employee’s performance influences organization performance which is true though much of the responsibility falls to the side of the organization as a whole in ensuring that the project is effectively achieved to the satisfaction of its goals and objectives in measurable/proposed time frame.

From the engagement and discussion from the software disaster of Airbus A380, I was able to broaden my knowledge and perspectives on the various factors that can cause project management failure. It is often seen that whenever project failure happens, we often tend to find the root cause of the problem in the wrong direction and point fingers at one area that caused the downfall. I personally feel that we should not just look at one angle or a single aspect of the project but look at an overall picture as a whole. We easily tend to fault the factor that is immediate and put all the blame on technical issues whenever there happens to be a software disasters and neglect the other aspects that could have caused the failure. IT projects rarely fail for one or two reasons, it fails due to combination of reasons as seen from the Airbus A380 software project. In addition to the issues that Airbus A380 faced, there were discussion on strategies or mitigations that could be learnt from Airbus A380 project disaster such as effective communication, intercultural session across sites to give a sense of unity and a better culture and value that would promote transparency and honesty leading to an improved employee motivation and ownership.

Other than the airline software project failures, there were other great topics brought up by other peers as well, such as the hacking of crypto currencies known as Mt Gox Hack incident and software disaster of the OpenSSL cryptographic software library which increased my curiosity of those incidents as to what had happened, when did the issue happen and why it happened. After researching through these incidents, I thought to myself, what has been done is done and so what could organizations do to prevent such incidents from happening in the future. In order to prevent such incidents from happening, organizations/enterprises must ensure a robust quality assurance aspect in every phase to validate that all functional modules are consistent and well-integrated, establish a strong risk assessment in order to be well prepared to mitigate big incidents, effective communication across teams and a strict governance looking after the thorough testing and maintaining high quality of the software before  it is put to use in real time. Overall, I found the discussion very enriching and engaging.

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