

6. SUMMARY

Case study of the agile software development project on risk assessment using FMEA was conducted on DST project to:

- Analyse possible failures in ASD process
- Calculate risk importance using FMEA
- Defining most crucial risk factors

During the research all the objectives have been met successfully. Record of potential failure modes and components associated with them have been documented in the Appendices 4, 5, 6, 7 and 8. Calculations and analyses of collected data has shown the crucial risk factors for each process to be as follows:

- Requirements and Analyses – complexity of attaining essential input from client for further development
- Implementation – inefficient code creating technical debt
- QA – releasing buggy codes to live, due to incorrect test built on misunderstood requirements
- Maintenance – technical dept complicating and prolonging issue resolving process
- Leading and Management – failure of attaining additional resources when needed

It has been identified that Requirements and Analyses may start the chain of failures for other processes and in order to decrease overall risk values, they need to be captured in the very beginning. Thus, the first focus for the team should be resolving Requirements and Analyses related highest RPN risks first.

Potential solution for the issue should be separating requirements collecting and analyses processes from each-other and have them carried out by two separate specialists. This will ensure to free time for the analyses processes (ex.: actual analyses, testing) – which according to study, currently is an issue; and have more dedication towards customer related topics.

After the study, team concluded that recruiting additional resource and having two specialized professionals for Requirements and Analyses process should in fact be beneficial. Onboarding process has already begun, and next session of failure modes study will show how that has managed to improve project outcomes.