# Travel Management System - RISK ANALYSIS
# Charul Patidar - 16JE002265

## POTENTIAL RISKS

| S. No. | RISK DESCRIPTION | RISK TYPE |
|---|---|---|
| 1 | Lack of top management commitment to the project | ORG |
| 2 | Misunderstanding of the requirements | R |
| 3 | Not managing change properly | P&C |
| 4 | Failure to gain user commitment | U |
| 5 | Lack of effective project management skill | P&C |
| 6 | Lack of adequate user involvement | U |
| 7 | Failure to manage end-user expectations | U |
| 8 | Lack of effective project management methodology | P&C |
| 9 | Unclear / misunderstood scope/ objectives | P&C |
| 10 | Changing scope / objectives | P&C |

## RISK ASSESMENT & CONTROL MEASURES

| S. No. | RISK | DESCRIPTION | SOLUTION | CHECKLIST |
|---|---|---|---|---|
| **1** | **Inherent Schedule Flaws** | Software development, given the intangible nature and uniqueness of software, is inherently difficult to estimate and schedule. | Get the team more involved in planning and estimating. Get early feedback and address slips directly with stakeholders. | *-PASS-* |
| **CONTROL MEASURE** | On agile projects the team is heavily involved in planning and estimating through activities such as XP's planning game and Wideband Delphi workshops. By working in short increments the true velocity of the team quickly emerges and is visible to all stakeholders who are now more closely involved in the project. In short, the true progress is hard to hide and quickly revealed, giving feedback to the stakeholders. | | | |
| **2** | **Requirements Inflation** | As the project progresses more and more features that were not identified at the beginning of the project emerge that threaten estimates and timelines. | Constant involvement of customers and developers. | *-PASS-* |
| **CONTROL MEASURE** | Agile projects plan in the regular trade-off discussions about features and estimates at every iteration boundary. Changes and requirements inflation are accepted as a fact of software projects. Rather than utilising change-suppression mechanisms, prioritisation sessions are scheduled that allow worthwhile changes to proceed and initially envisioned features to be superseded if the business gives their authorisation. It has never been possible to squeeze a pint into a quart cup, but now at least we anticipate the likely issue and have mechanisms in place to address the matter as part of the project from its early stages. | | | |
| **3** | **Employee Turnover** | Key personnel leave the project taking critical information with them that significantly delays or derails the project. | Increased collaboration and information sharing on the team. | *-PASS-* |
| **CONTROL MEASURE** | Agile projects practice information sharing techniques such as pair programming, common code ownership, and frequent reporting at daily stand-ups specifically to reduce the "bus-factor". When this "bus factor" (the impact to the project of a key member being hit by a bus) is reduced multiple team members share key information and the risk due to employee turnover is small. Also, often overlooked, is the fact that when working in an engaging, rewarding, empowered, collaborative environment such as agile projects, people are far less likely to want to move elsewhere so the risk is often avoided as well as reduced. | | | |
| **4** | **Specification Breakdown** | When coding and integration begin it becomes apparent that the specification is incomplete or containsconflicting requirements. | Use a dedicated Product Manager to make critical trade off decisions. | *-PASS-* |
| **CONTROL MEASURE** | Agile projects utilise the concept of an ambassador user, subject matter expert, or customer proxy to play the product manager role. The idea is that someone (or some group) need to be readily available to answer questions and make decisions on the project. Traditional projects suffer specification breakdown when no one will own the role and conflicting assumptions or decisions are made. Agile projects have some form of product owner role central to their core team composition to ensure decisions are made in a timely fashion. | | | |
| **5** | **Poor Productivity** | Given long project timelines, the sense of urgency to work in earnest is often absent resulting to time lost in early project stages that can never be regained. | Short iterations, right people on team, coaching and team development. | *-PASS-* |
| **CONTROL MEASURE** | Agile methods recognise Parkinson's Law and the Student Syndrome apply to software projects. Parkinson's Law says that: "Work expands to fill the time available" and Student Syndrome: "Given a deadline, people tend to wait until the deadline is nearly here before starting work." By having short iterations, work is time-boxed into a manageable iteration (typically 1-4 weeks) and there is always a sense of urgency. Agile methods do not specifically address getting the right people on team, coaching and team development, but these are core leadership roles applicable to both agile and traditional projects | | | |