



Checklist for Common Requirement Risk Factors

Type of Risk	Impacts/Consequences of Risk	Examined
	Scope Risk Factors	
Failure to define Scope	<ul style="list-style-type: none"> • Product purpose/use not well understood • Stakeholder's expectations not met • Vague or undefined desired outcomes • Lack of direction/Lack of vision • Possible Conflicts • Constant Change • Insufficient knowledge to write requirements 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Failure to involve relevant stakeholders	<ul style="list-style-type: none"> • Missing requirements • Incorrect information • To many assumptions • Stakeholder's expectations not met 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Failure to identify drivers and constraints	<ul style="list-style-type: none"> • Missing requirements • Non-compliance • Rework • Could fail to work with existing systems 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Failure to define a feasible concept to meet the stakeholder needs	<ul style="list-style-type: none"> • Stakeholder expectations not met • Lifecycle stage requirements missing • Lack of robustness to handle off-nominal cases • Cost & schedule impacts • Scope creep 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Failure to define product boundaries and external interfaces	<ul style="list-style-type: none"> • Do work you don't need to do • Leave out work you should have done • Could fail to work when interacting with other systems 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Failure to baseline scope before writing requirements	<ul style="list-style-type: none"> • Uncontrolled change • Scope creep • Possible Conflicts • Inconsistent, incorrect, and incomplete requirements • Cost & schedule impacts 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Requirement Risk Factors		
Requirement not necessary	<ul style="list-style-type: none"> • Increased requirement management cost • Increased project cost • Less resources for needed requirements 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Requirement not verifiable	<ul style="list-style-type: none"> • Wrong implementation • Stakeholder expectations not met • Incorrect verification (verify wrong thing) 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Requirement not attainable	<ul style="list-style-type: none"> • Cost impacts • Schedule impacts • Technology – performance, cost, schedule impacts 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Requirement can be understood more than one way (ambiguous)	<ul style="list-style-type: none"> • Wrong implementation • Stakeholder expectations not met • Incorrect verification (verify wrong thing) 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Requirement(s) incomplete	<ul style="list-style-type: none"> • Requirement can not be implemented • Stakeholder expectations not met • Non-compliance with drivers and constraints • Could fail to work when interacting with other systems 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Type of Risk	Impacts/Consequences of Risk	Examined
	Requirement Risk Factors	
Requirement reflects implementation	<ul style="list-style-type: none"> • Real requirement not addressed • Requirement could be at the wrong level • Restricts solution space – better solution not defined 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Requirement subject to change	<ul style="list-style-type: none"> • Rework (impact on cost & schedule) • Non-compliance • Possible Conflicts • Wrong requirement implemented • Could fail to work when interacting with other systems 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Requirements not allocated (flowed down)	<ul style="list-style-type: none"> • Requirements not implemented • Missing requirements at lower levels • Could miss an internal interface • Incomplete change assessment 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Requirements not traceable to a parent	<ul style="list-style-type: none"> • Gold plating – requirement may not be needed • Incomplete change assessment • Parent requirement not properly implemented 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Requirement Management Risk Factors		
Not enough time and resources allocated to define and baseline scope expectations	<ul style="list-style-type: none"> • Scope risk factors • Lack of feasible concept to meet stakeholder • Scope creep 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Not enough time and resources allocated to develop and baseline requirements	<ul style="list-style-type: none"> • Requirement risk factors • Lack of/poor/incomplete direction to developers • Requirement creep 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
No official process/process not followed	<ul style="list-style-type: none"> • Wasted resources • Scope risk factors • Requirement risk factors 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Poor change management	<ul style="list-style-type: none"> • Uncontrolled change • Unnecessary rework • Scope creep • Requirements creep • Cost & schedule impacts 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Mitigating Scope Risk

- Develop a clear vision
 - Identify the Need
 - Define clear goals and objectives
- Identify and manage drives and constraints
- Develop operational concepts
- Identify and manage external interfaces
- Identify and manage scope risk

Mitigating Requirement Risk

- Define and enforce a requirement development process
- Follow the “Writing Good Requirements Checklist”
- Include key attributes: rationale, traceability, verification method, allocation, priority, risk
- Train requirement writers, management, developers, testers, reviewers on how to write defect free requirements
- Practice continuous requirement validation
- Identify and manage requirement risk
- Baseline Requirements

Mitigating Requirement Management Risk

- Allocate sufficient time and resources to define and baseline Scope
- Allocate sufficient time and resources to develop and baseline requirements
- Develop and enforce a formal requirement development and management process
- Use requirement attributes to manage requirements
- Train team in your requirement development and management process



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