THE MISSING LINK – RISK IDENTIFICATION

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What is the Problem?

Increasing product and service development program overruns, performance shortfalls and failures

Why?

**Missed Risks:** program issues that cost $$$$$ to fix, especially late in development, operation

Why do we care?

Problems late in development cost 500-1000 times to address (INCOSE SE Handbook, Chapter 2)
If you improve Risk ID, you improve RM

- Our industry study found that although 75% of companies had a RM process in place, 51% suffered risk related losses or failures

Why?

- The Piecemeal Approach to Risk Management
- The Subjectivity of Risk Management
- Denial, Fear and Embarrassment About Risk
Current Risk ID methods need improvement!

We present a new, radical approach to risk identification - supported by 10+ years of research, analysis

- Unlike most other PM processes, RM does not require a risk baseline to be developed

- Due, in part, to the belief that each program has unique risks

- This is false, according to our research
The Risk Identification Analysis

- Over 500 programs, their risks and outcomes were analyzed
- The same risks kept coming up, over and over
- Although risk specifics vary by program, the underlying causes are the same
- 218 common risks identified
- Risk weighting based on risk frequency, severity
A Better Way

Other Analysis Conclusions

• Program complexity and program risk relationship
  • Program factors that affected risk relationships
  • Program cost, schedule, # of personnel, # of technologies, influencing factors

• Complete evaluation for each risk – 2 parts
  • The risk line item
  • Program status of the risk at this time
    • Objective criteria developed for each risk
From 218 Risks - Selected Risks

### Technical
- Requirements Definition
- Interface Definition and Control
- Common Mode/Cascading Failures
- Quality
- Safety
- Logistics Supportability
- Technology Maturity
- Failure Analysis
- Models and Simulations
- Data Quality
- Software Module Maturity
- Software Integration Maturity
- Experience Required to Implement HW Module
- HS Methodology and Process Maturity
- Change Management Process
- Producibility
- Testing Planning
- COTS/GOTS/Reuse Experience

### Organizational
- Organizational Management
- Organizational Interest in Personnel Motivation
- Processes
- Organizational Culture
- Organizational Experience
- Organizational Business/Mission Benefit

### Operational
- System Operational Problems
- Obsolescence Management Process
- Personnel Training and Experience
- Human Error
- Near Miss Consideration
- User Acceptance
- User Satisfaction
- System Availability
- System Failure Contingencies

### Enterprise
- Enterprise Experience
- Enterprise Reputation
- Enterprise Management Processes
- Enterprise Security Processes
- Enterprise Contingency Planning

### Management
- Management Experience
- Resources and Commitment
- Overall Program Staffing
- Personnel Experience
- Turnover Rate
- Personnel Morale
- Subcontractor Management
- Supplier Management

### External
- Funding
- Regulatory
- Legal
- Labor Market
- Customer Experience
- Customer Interaction
Program Risk ID embodies analysis results

- Web-based SaaS
- Includes 218 risks and their risk levels
- Relates program complexity
- Enables metric-based risk analysis
- Enables risk trending through time
- Enables objective risk comparison across programs
## Program Risk ID Tool

### Program Risk ID Risk Example

<table>
<thead>
<tr>
<th>Risk Title</th>
<th>Risk Levels</th>
<th>Application Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Total Personnel Turnover Rate</td>
<td>5 – The current total personnel turnover rate is 48% or more per year.</td>
<td>• Consider the age distribution in your workforce—a narrow age distribution creates a risk.</td>
</tr>
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<td></td>
<td>4 - The current total personnel turnover rate is between 24% and 47% per year.</td>
<td>• Program staff turnover, versus historical norms, versus the program staff turnover plan &gt;10% difference per year is a red flag.</td>
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<tr>
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<td>3 - The current total personnel turnover rate is between 12% and 23% per year.</td>
<td>• Excessive staff turnover significantly lowers productivity below planned, and causes schedule slippage.</td>
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<td>2 - The current total personnel turnover rate is between 6% and 11% per year.</td>
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<tr>
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<td>1 - The current total personnel turnover rate is 5% or less per year.</td>
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<td>N/A</td>
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</tr>
</tbody>
</table>
www.programriskid.com

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