Using Corporate Finance Principles to Easily Determine Return on Investment
Introduction – Who we are

- Optimal Solutions & Technologies (OST, Inc)
- Washington DC-based, founded in 1999

Core competencies
- Integrated IT solutions
- Managed Services
- Management consulting
- Research, development & engineering

- CMMI L3 (CMMI-DEV v1.2)
- ISO 9001:2008 certified
- ANSI 748 compliant
The Roadmap
Defining ROI

\[
\text{ROI} = \frac{\text{Net Benefits}}{\text{Cost}}
\]

Example:

<table>
<thead>
<tr>
<th>Invested</th>
<th>$25,000 (Cost)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td>$75,000</td>
</tr>
<tr>
<td>Net Benefit</td>
<td>$50,000</td>
</tr>
<tr>
<td>ROI</td>
<td>$50,000/25,000 = 2</td>
</tr>
</tbody>
</table>
For which investment would you require the least return?
- U.S Treasury Bonds
- AIG
- GE
- Bernie Madoff

Danger  Opportunity
Measuring Risk

- 1-3, 1-9, 0-100 etc.
Hurdle Rate

I can live with given the riskiness of the project.
Terms

Safe Investment

“Riskless/Riskfree Rate”

E.g.
U.S Treasury Bonds
Hourly Rate…doing your regular tasks
Excess returns stock market makes over treasury

Market excess: Average over 80 years = 4.82%
Terms

Additional return for taking risk

Risk Premium

E.g.
RiskScore * (Riskfree rate)

Risk Score * (Market Excess)
Example – Process Improvement

You have 1 person available for 70 hrs.
Risk free rate = 70 hrs

They could work on –

**Options A** = Project “Audit”
Investment = 70 hrs
Expected Return = 400 hrs

OR

**Options B** = Project “Training”
Investment = 70 hrs
Expected Return = 600 hrs

Risk Score for Project “Audit” = 1
Risk Score for Project “Training” = 10
Risk premium = risk score * risk free rate

Risk premium = 1 * 70 = 70

Expected Return = 400 hrs

HR = 140 hr

Risk Premium (70)
Risk free (70)
Example – Process Improvement

Risk premium = risk score * risk free rate
= 10 * 70 = 700

Expected Return = 600 hrs

HR = 770 hr

Risk Premium (700)
Risk free (70)

Ms. Training
Another example – Business Development

$$= \text{Riskless rate} + \beta \times (\text{Market Premium})$$

$$= 4\% + \beta(4.82\%)$$

Key Statistics page of Yahoo finance
Measure or Quantify

- CMMI, ISO 9001 etc.
  - Output/Cost/Time/Quality
  - New Business which required CMMI/ISO
- Branding Activities
- Training
  - Output/Cost/Time/Quality

Risk

Skills

Professional Development

Time

Value

ROI Risk Hurdle Terms E.g.1 E.g.2 Consider Steps Decide Why Ponder
Additional things to consider

- Use ranges...
  ...instead of single values

- Guidance
  - Timeframes
  - Hourly rates
  - Exchange rates

- Priorities
Additional things to consider…Priorities

- Delighters
  1. ...
  2. ...
  3. ...
  4. ...

- Performance Needs
  1. ...
  2. ...
  3. ...
  4. ...

- Basic Needs
  1. ...
  2. ...
  3. ...
  4. ...

- Not implemented

- Customer frustration

- Fully implemented

- Satisfaction

- Dissatisfaction

- Neutral

- Customer Delight!

- Customer Satisfaction
Additional things to consider

- Isolating effects
  ...CAR before the fact

Training failed to deliver business result

Applied correctly

Learned correctly

Correct training

Measurements are needed at all levels so you can make the right decisions going forward!
Best practices for the process

1. Determine alternatives (DAR like)
   - Normal
   - Scale Up
   - Scale Down
   - Sustain

2. Peer review

3. Senior Management Review

4. Get Agreement

5. Make Portfolio decision
Making the decision…

- Creating a portfolio Vs top 10
- Whole is greater than sum of parts
- Risk reduction/greater value
- E.g. harnessing synergy
  - EVM
  - ANSI Compliance
  - Estimation
  - Project Server

Harnessing the synergy
Why bother?

- Transparency
- Consistency
- Sound justification
- Better decisions
- High Maturity organization
Closing thought...to ponder about

- The finance debacle...risk/return models
- Does the ROI model pass the “common sense” test
- Intuitive sense?
- Assumptions can be validated?
- Do the users understand it?
- Do we know when not to use it...
- Higher Maturity thinking...SEI
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Any Questions?