Kasvuyrittäjyys ja riskinotto

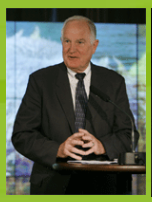
Jyrki Kontio, Ph.D.

Background: Jyrki Kontio

- Principal Consultant, R & D-Ware Oy
  - Risk mgmt consulting and training
  - Software engineering consulting
  - Technical due diligence
  - Process management and improvement
- Board member at QPR Software Oyj, Webropol Oy, Tietotekniikan Liitto, etc.
- Professor of Software Business @ Helsinki University of Technology, 2002 – 2007
- Nokia, 1986 – 2002
  - Knowledge-based systems research and consulting at Research Center (1986-92)
  - Manager of the software engineering research group at Research Center (1992-94)
  - Quality manager at a business unit (1997-99)
  - Senior manager at Nokia Networks: process management (1999-2000)
  - Principal Scientist at Nokia Research Center, software capability (2001-02)

Kasvufoorumi

- Kasvufoorumi edistää suomalaisen ohjelmistotoimialan kasvua ja kansainvälistymistä
- Hankkeen tavoite on herättää julkinen keskustelu suomalaisen ohjelmistoteollisuuden keskeisistä haasteista
- Kasvufoorumi kerää yhteen alan keskeiset vaikuttajat sekä yrityksistä että muista alan toimijoista
- Tavoitteena on löytää ratkaisuja ohjelmistoalan kansainvälisen kilpailukyvyn kehittämiselle ja parantaa alan näkyvyyttä mediassa ja yhteiskunnallisten päättäjien keskuudessa



Haasteet

Toimialan sisäiset haasteet
1. Myynnin ja markkinoinnin puutteet (1)
2. Pieni yrityskoko (2)
3. Markkinan ja asiakkaan heikko tuntemus (3)
4. Kasvustrategian muodostamisen vaikeus (4)

Kansalliset haasteet
1. Yrittäjyysasenne-ilmasto, joka ei kannusta (5)
2. Pääomamarkkinan pienuus (6)
3. Pieni riskinottohalukkuus (7)
4. Huono riskinottokyky (8)

Globaalit haasteet
1. Markkinoiden ja innovaatio-keskittymien etäisyys Suomesta (10)
2. Globalisoituva kilpailu tuotteilla ja ratkaisuilla (12)

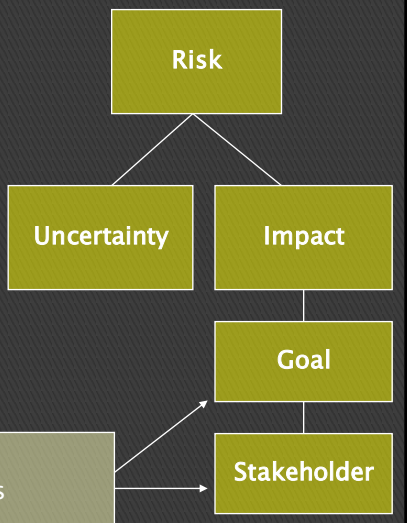
Definition of Risk

- *Uncertainty associated with reaching the objectives.*
- Risk has two main attributes:
  - **Impact**: some damage ("pain")
  - **uncertainty**: there is uncertainty about whether the loss will occur

Goals and Stakeholders

- The evaluation of impact is based on what is expected – and who is having those expectations:
  - **goals** or expectations: without them the definition of loss is vague or does not exist
  - **stakeholder**: goals and expectations are associated to some interested party, a person or an organization

Risk analysis must be based on good understanding of goals and stakeholders



Let's Play a Game …

- You must choose between two gambles:
  - 100% probability of losing 50 € 100% * -50 € = -50 €
  - 1% probability of losing 5,000 € 1% * -5,000 € = -50 €

Will you play?

- How about this game:
  - 100% probability of losing 50 € 100% * -50 € = -50 €
  - 1% probability of losing 4,900 € 1% * -4,900 € = -49 €
- Last bid:
  - 100% probability of losing 50 € 100% * -50 € = -50 €
  - 1% probability of losing 1,500 € 1% * -1,500 € = -15 €

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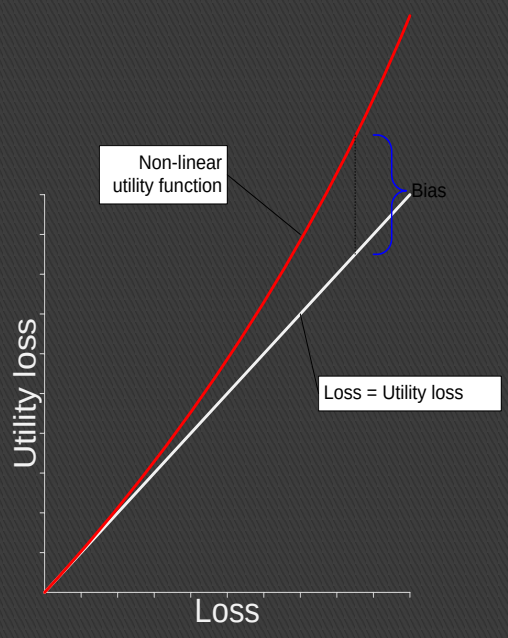
Utility Theory

- Expected loss cannot account for non-linear utility function
- Most fields assume non-linear utility functions
- Riskit evaluates expected utility loss



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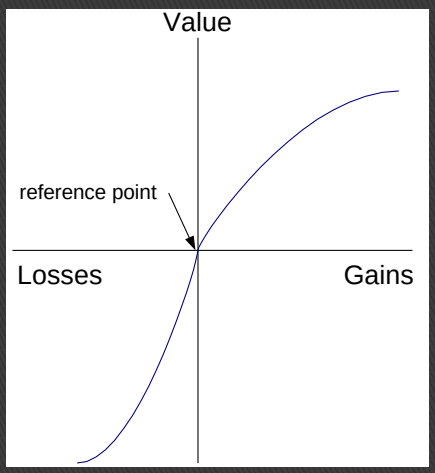
Prospect Theory

- Reference point in decision making
  - Losses are perceived bigger than gains



Prospect Theory: biases

- Perception of time
  - "Things look bigger when they are closer"
- Representativeness
  - Representativeness over accessible information
  - Insensitive to sample size
  - Misconceptions about probabilities (e.g. gamblers fallacy)
  - Misconceptions about regression
  - …
- Memory recall
  - Retrievability of instances
  - Imaginability
  - Illusory correlation
  - …
- Anchoring
  - Insufficient adjustment
  - Compound probabilities
  - Probability distribution

Conclusions

- Risk-taking is primarily based on attitudes
- Success is primarily determined by the will of owners and management
- Think about what you really want
- Be objective, don't be fooled by biases

- Play the game –

no risk = no reward

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