Fakultät für Betriebswirtschaft
Munich School of Management

The risks and opportunities of delivering SaaS – Results of a survey of German companies

MANAGEMENT REPORT

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Dr. Alexander Benlian
Institut für Wirtschaftsinformatik und Neue Medien
www.wim.bwl.lmu.de

Prof. Dr. Thomas Hess
Institut für Wirtschaftsinformatik und Neue Medien
www.wim.bwl.lmu.de

Research questions and design

Background

• Software-as-a-Service (SaaS) has been predicted to become a major new IT trend that helps deliver software **at a lower cost and more rapid time to value**. On the downside, critics mention that SaaS is **less stable and secure** in providing software services, as it heavily depends on robust Internet connections. Given this discrepancy between opinions, we analyzed the opportunities and risk of SaaS by addressing the following questions:
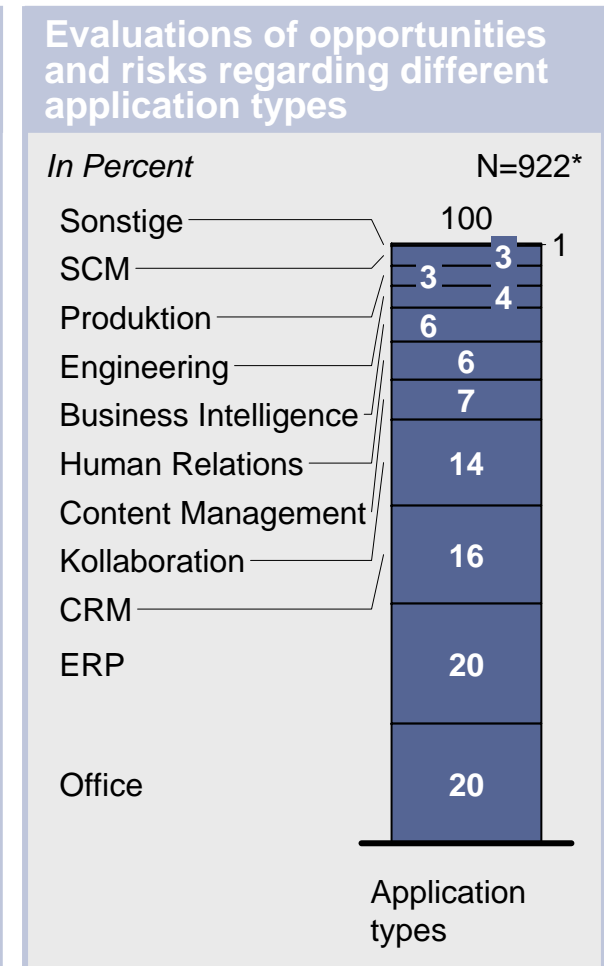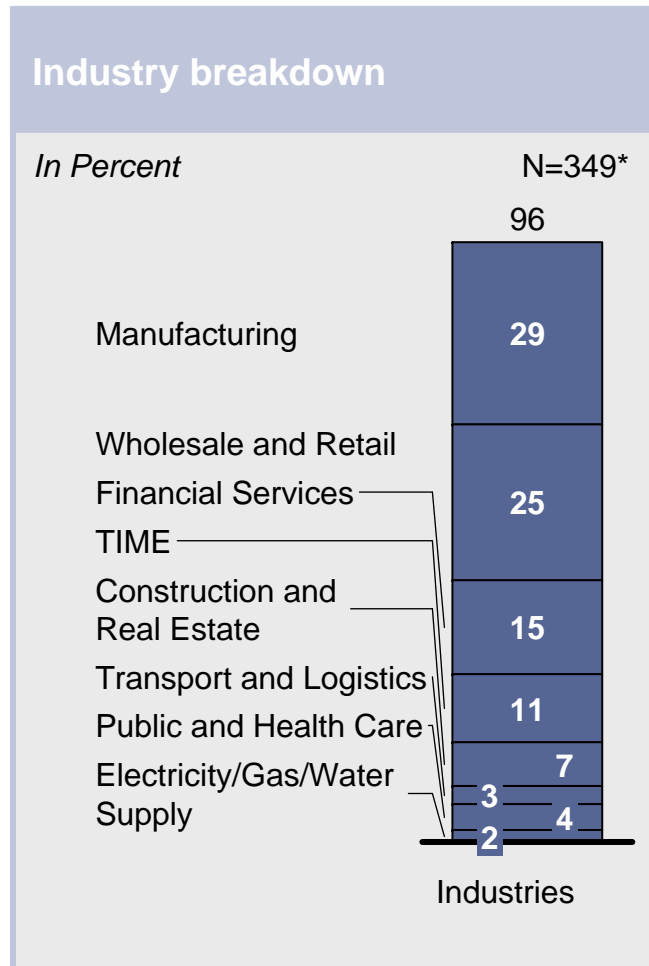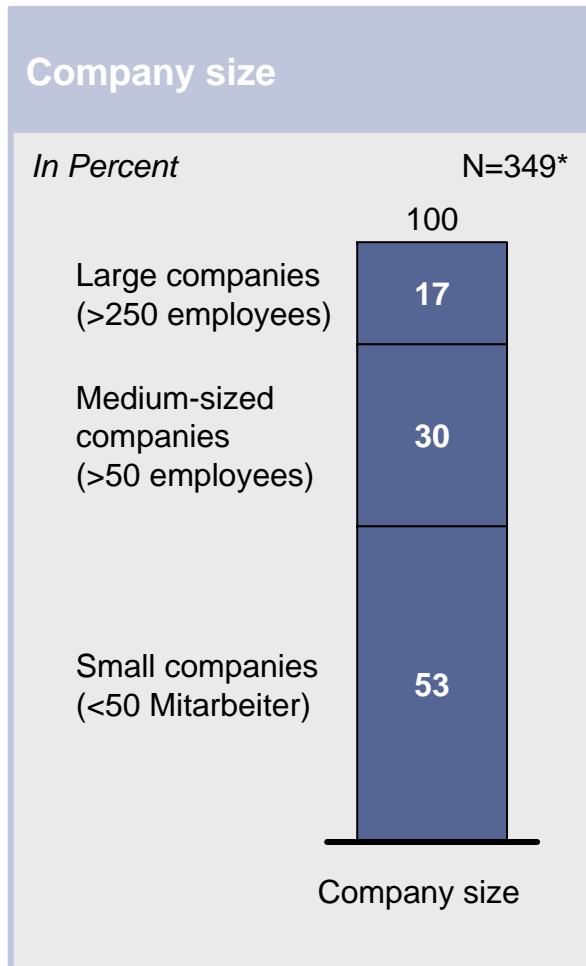
1 What are the most important opportunities and risks of SaaS

- Across different application types?

- For SaaS-adopters and non-adopters?

- For SMEs and large enterprises?

2 How do companies evaluate different risk-mitigation strategies regarding the adoption of SaaS?

Research design

• We conducted a **survey of IT managers and CIOs of German companies** between July and September 2009

• Based on a random sample of software-using companies, we could gain **922 responses (of 349 companies) to the evaluation of opportunities and risks** for different application types

Description of survey sample

Company size

In Percent   N=349*

100

Large companies (>250 employees) — 17

Medium-sized companies (>50 employees) — 30

Small companies (<50 Mitarbeiter) — 53

Company size

Industry breakdown

In Percent   N=349*

96

Manufacturing — 29

Wholesale and Retail
Financial Services — 25

TIME

Construction and Real Estate — 15

Transport and Logistics — 11

Public and Health Care — 7

Electricity/Gas/Water Supply — 3

2 — 4

Industries

Evaluations of opportunities and risks regarding different application types

In Percent   N=922*

100

Sonstige — 1
SCM — 3
Produktion — 3
Engineering — 4
Business Intelligence — 6
Human Relations — 6
Content Management — 7
Kollaboration — 14
CRM — 16
ERP — 20
Office — 20

Application types

* In total, 349 companies evaluated the opportunities and risks of 922 SaaS-solutions, i.e., each company evaluated around 2.64 applications
types on average

Overview on opportunities and risks of SaaS analyzed in our study

Risk factors

Financial risk
The risk that a SaaS customer has to pay more to reach the expected level of service than initially anticipated

Strategic risk
The risk that a SaaS customer loses critical resources or capabilities as a factor for competitive advantage

Operational risk
The risk that SaaS does not deliver the expected level of service by failing to provide application availability, network bandwidth and system interoperability

Security risk
The risk a SaaS customer runs due to giving direct control of (critical) data and thus valuable assets to a provider

Social risk
Social risks involve the possibility that the reputation and career of the manager responsible for SaaS will be harmed due to negative press or employee resistance

Opportunity factors

Cost advantages
Cost advantages assume that external vendors can provide application services at lower TCO* than the client company

Strategic flexibility
Strategic flexibility assumes that SaaS clients become more flexible in switching the IT provider and in reducing vendor lock-in

Quality improve-ment
Assumes that SaaS providers incorporate industry best practices and total quality management procedures to become more responsive to customer needs

Focus on core capabilities
Refers to the notion that SaaS will make it easier for firms to focus on their core competences because they are able to shift application development and maintenance to the vendor

Access to specialized resources
Assumes that SaaS customers can benefit from specialized resources, capabilities and technologies of SaaS providers

* TCO = Total cost of ownership

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Management summary of main results

- SaaS adoption will get a boost in 2010 in all major application markets; growth will, however, stagnate afterwards

- While security concerns about SaaS are prevalent in customers' risk assessments, SaaS is considered as cost saving lever across all core business applications

- Interestingly, while potential clients are consistently overestimating the risks of SaaS, actual clients experience considerable cost advantages (and other benefits) through SaaS

- SMEs tend to be more risk-averse compared to large enterprises, but also see higher returns when adopting SaaS

- A sound contract configuration is perceived to be the most important means to mitigate risks

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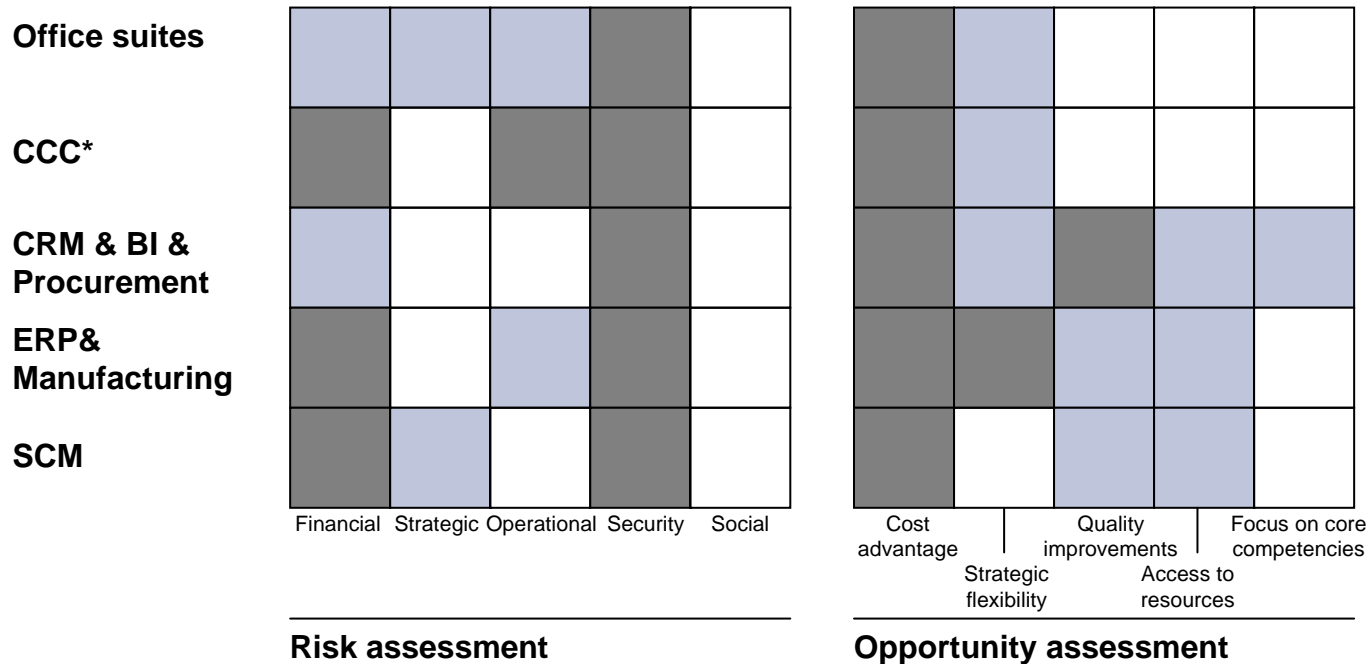
SAAS ADOPTION 2008-2010
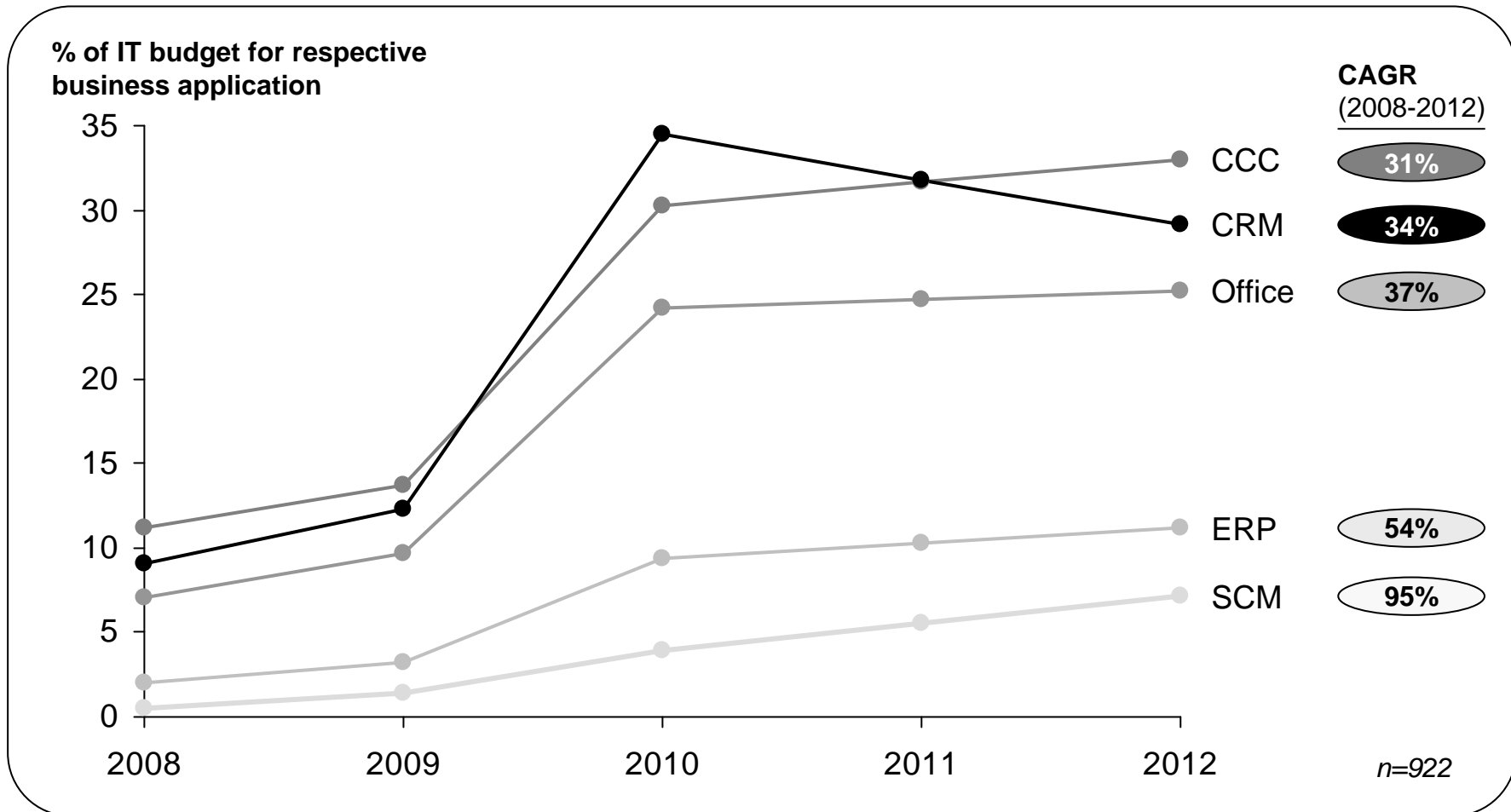
Source: SaaS opportunity risk survey 2009

While security concerns about SaaS are prevalent in customers' risk assessments, SaaS is considered as cost saving lever across all core business applications

RISK/OPPORTUNITY ASSESSMENTS
ACROSS CORE BUSINESS APPLICATIONS

■ High
▨ Middle
□ Low

n=922

Risk assessment

Opportunity assessment

* Communication, Content, Collaboration
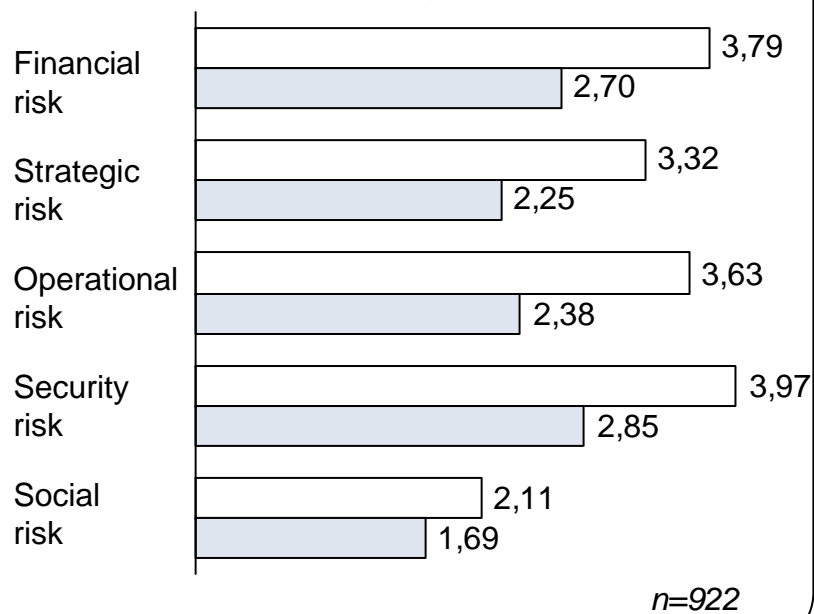
Interestingly, while potential clients are consistently overestimating the risks of SaaS, actual clients experience considerable benefits through SaaS

**RISK/OPPORTUNITY ASSESSMENTS OF
POTENTIAL AND ACTUAL SAAS CLIENTS**

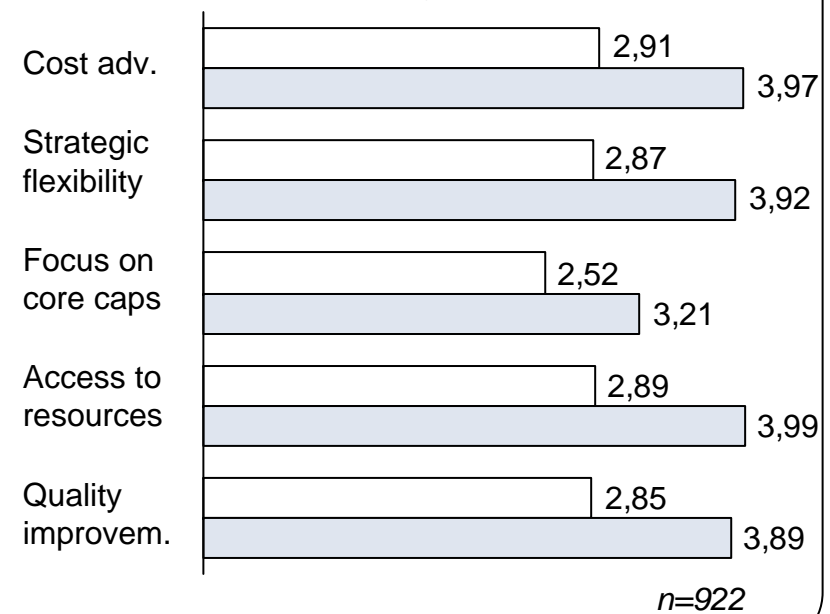☐ Potential SaaS clients (n=547)
▨ Actual SaaS clients (n=375)

Risk assessment

Scale from 1=low risk to 5=high risk, mean values

Financial risk	3,79 / 2,70
Strategic risk	3,32 / 2,25
Operational risk	3,63 / 2,38
Security risk	3,97 / 2,85
Social risk	2,11 / 1,69

n=922

Opportunity assessment

Scale from 1=low op to 5=high op, mean values

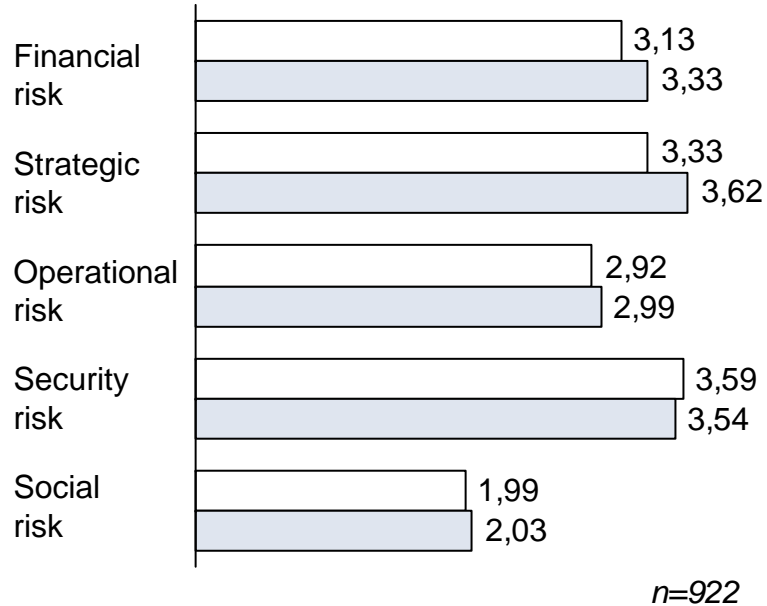|	
Cost adv.	2,91 / 3,97
Strategic flexibility	2,87 / 3,92
Focus on core caps	2,52 / 3,21
Access to resources	2,89 / 3,99
Quality improvem.	2,85 / 3,89

n=922

Source: SaaS opportunity risk survey 2009

SMEs tend to be more risk-averse compared to larger enterprises, but also see higher returns when adopting SaaS

RISK/OPPORTUNITY ASSESSMENTS OF SMALL-AND-MIDSIZED AND LARGE ENTERPRISES

☐ SMEs (n=695)
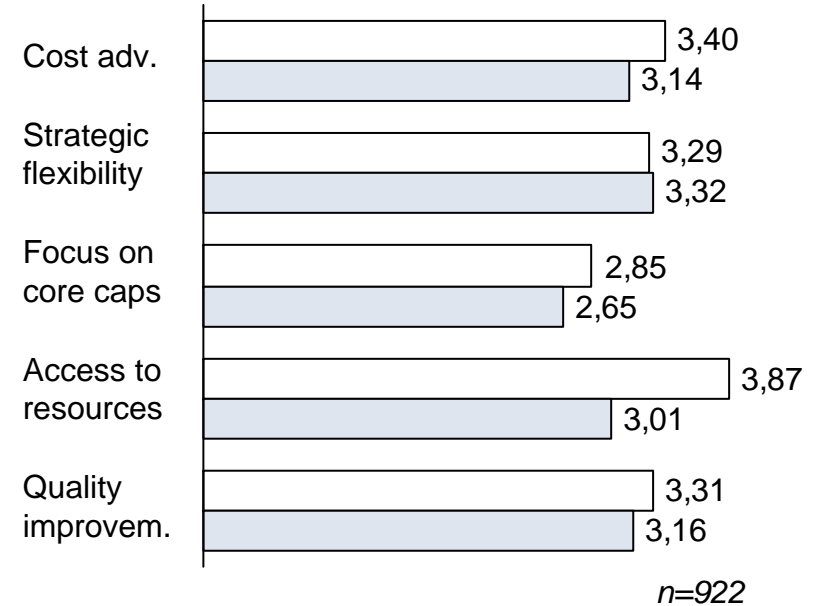▨ Large Enterprises (n=227)

Risk assessment

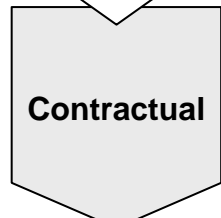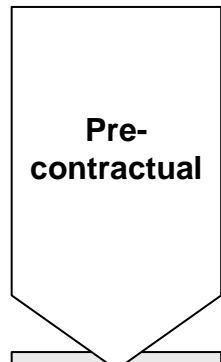*Scale from 1=low risk to 5=high risk, mean values*

	SMEs	Large Enterprises
Financial risk	3,13	3,33
Strategic risk	3,33	3,62
Operational risk	2,92	2,99
Security risk	3,59	3,54
Social risk	1,99	2,03

n=922

Opportunity assessment

Scale from 1=low op to 5=high op, mean values

	SMEs	Large Enterprises
Cost adv.	3,40	3,14
Strategic flexibility	3,29	3,32
Focus on core caps	2,85	2,65
Access to resources	3,87	3,01
Quality improvem.	3,31	3,16

n=922

Source: SaaS opportunity risk survey 2009

A sound contract configuration is perceived to be the most important means to mitigate risks

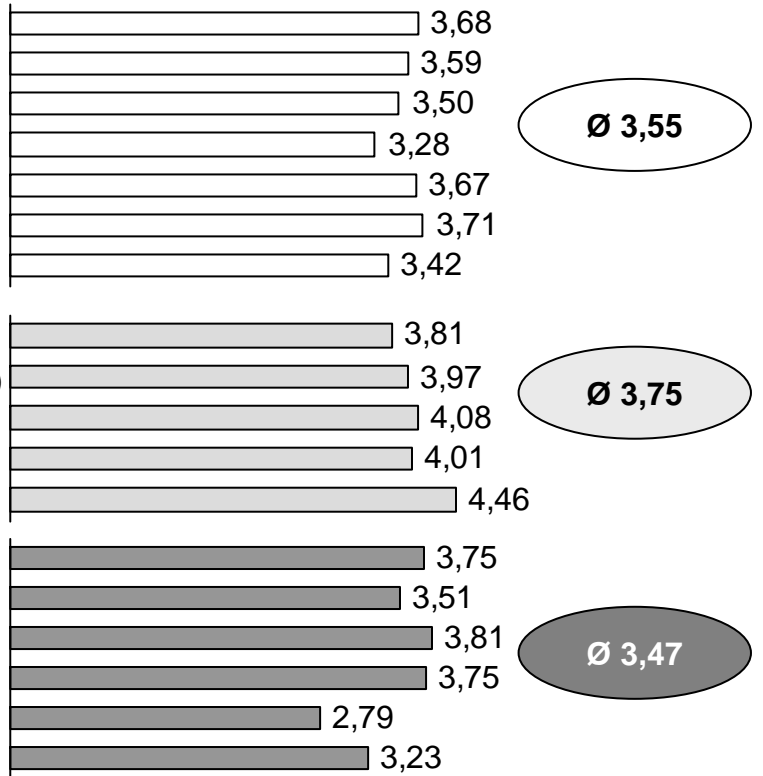## RELEVANCE OF RISK MITIGATION STRATEGIES in SAAS

Risk mitigation strategies

Risk mitigation measurements

Confidence in effectiveness of strategy
Scale from 1=low to 5=high confidence, mean values

Pre-contractual

- Increase capabilities in
  - vendor selection (e.g., RFP etc.)
  - contract/liability law
  - contract negotiations
  - relationship management
  - performance management
- Test cultural fit with different providers
- Focus on big players

3,68
3,59
3,50
3,28
3,67
3,71
3,42

Ø 3,55

Contractual

- Use comprehensive SLAs with penalty system
- Negotiate adequate pricing model (payment structure)
- Use detailed definition of liability clauses
- Integrate specific clauses for re-negotiations and exit
- Specify (Data) security levels (and escrow services)

3,81
3,97
4,08
4,01
4,46

Ø 3,75

Post-contractual

- Introduce detailed disaster recovery plan
- Conduct regular benchmarking of cost and services
- Control via disciplined SLA management
- Use trust-building mechanisms
- Incentivize IT employees for active cooperation
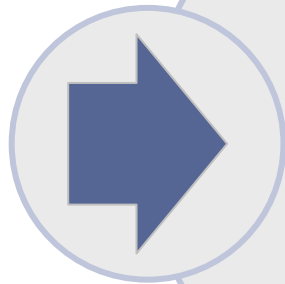- Train users in business units

3,75
3,51
3,81
3,75
2,79
3,23

Ø 3,47

Source: SaaS opportunity risk survey 2009

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Outlook on follow-up SaaS projects

- In future studies, we plan to analyze the **service quality of SaaS-based solutions** as experienced by SaaS customers. Are there specific ‚**zones of tolerance**' for (potential/actual) customers that SaaS providers have to consider?

- Furthermore, we are interested in how SaaS will **transform the application landscape and the IT operations** of companies increasingly using SaaS-solutions. How for example do SaaS-based solutions dovetail with existing (legacy) systems?

Contact data for further information

Dr. Alexander Benlian / Prof. Dr. Thomas Hess

Ludwig-Maximilians-Universität München
Department für Betriebswirtschaftslehre
Institut für Wirtschaftsinformatik und Neue Medien

Ludwigstr. 28
D-80539 München

Telefon: +49 (0)89 2180-6390 | -13541 (Fax)
E-Mail: {benlian|thess}@bwl.lmu.de
Internet: www.wim.bwl.lmu.de | www.software-economics.org