Shadow IT risk

empirical evidence from multiple case studies

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History
- Research institute @ UAS Constance
- Established 2012

Area of interest
- Integrated process controls
- BPM
- Governance => Shadow IT

Applied research
- Case Studies
- Proof of concepts
- Training
- Consulting
Introduction

Shadow IT – a definition
Typical occurrences

Shadow IT usage
Decisions and accounting
Impact on processes

Shadow IT quality
Relevance and quality
Quality and sourcing

Management measures
Register
Coordinate
Reengineer

Summary

Research project @kips
Method design and verification
Consulting
Data set: Four companies, 386 instances
Shadow IT – a definition

Shadow IT:
Business process supporting systems implemented and maintained by Business Departments without being integrated in IT Service Management.

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Typical occurrences

The types of Shadow IT differ between finance and manufacturing industry.

<table>
<thead>
<tr>
<th>Source</th>
<th>Banking &amp; Insurance</th>
<th>Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware and devices</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>Mobile Devices</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Cloud Services</td>
<td>0%</td>
<td>87%</td>
</tr>
<tr>
<td>Application programs</td>
<td>0%</td>
<td>31%</td>
</tr>
<tr>
<td>Combined Solutions (Server and –systems…)</td>
<td>0%</td>
<td>37%</td>
</tr>
<tr>
<td>End User Computing (Excel, Access,…)</td>
<td>10%</td>
<td>20%</td>
</tr>
</tbody>
</table>
Users implement Shadow IT to support their daily work. Therefore these systems are used for decision making and collection of financial figures.

Operational and strategic decisions

- Yes: 40%
- No: 60%

Accounting relevance

- Yes: 90%
- No: 10%

No accounting department was analysed!
Impact on Processes

Critical processes are often dependent on Shadow IT.

Short recovery times draw attention to the quality of shadow systems.
Relevance and Quality

EUC tools are often used in a wrong setting.
The average quality differs significantly from self-developed to sourced solutions.
Management Measures

Depending on quality and relevance different measures can be taken to mitigate shadow IT risks.

Only 36% of all instances remain unchanged.

Similar between industries.
Shadow IT is widespread

Control systems do not consider Shadow IT sufficiently

Maturity level of
- EAM
- Risk management could be set to 0

Poor controls force users into (weak) Shadow IT

More implementations
Self development instead of purchasing high quality solutions

Management need
Identification
Evaluation
Control

Continuation
Ongoing registration
Adaptive Governance

No department or process without Shadow IT
Many shadow systems are highly critical to the Business

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Thank you for your attention.

If there are any questions on Shadow IT or IT-Governance please do not hesitate to contact us.

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