Westfälische Wilhelms-Universität Münster

ERCIS
Service Science at the
European Research Center for Information Systems

Integrating Regulatory Requirements into Information Systems Design and Implementation

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PERIENCE

Compliance in inter- and intra-organizational Collaboration

- Existing approaches in Business Process Compliance mainly focus on modeling, verification, and formal semantics of business processes and compliance rules (Kharbili 2012)
- Aspects of comprehensibility, communication, and target-group-specific functionality are gaining awareness
- Impacts of legal regulations during transition between design and execution hardly covered

Challenges in managing regulatory compliance

- Lack of compliance culture
- High cost
- Difficulties in creating evidence of compliance
- Lack of perception of compliance as a value-add
- Lack of understanding of its relevance to business
- Lack of communication among staff
- Frequent changes in regulations
- Inconsistencies
- Overlap in regulations
- Lack of compliance knowledge base
- Lack of IT support/tools

(Abdullah, Sadiq, Indulska 2010)

represents four references in structured interviews

A Meta-Design for Structure and Guidance

Direction of Integration (Perspective)

Information Systems Development Layer

	Regulation ⇨ IS Element	IS Element ⇨ Regulation
Design Layer (Model)	• To which degree have regulatory requirements already been considered by parts of the model? • Which parts of the model are affected by altered or new regulations?	• What legal rational stands behind a part of the model? • Can model elements be altered or omitted without violating existing regulations?
Implem. Layer (Instance)	• To which degree have regulatory requirements already been considered in the implemented instance? • Which parts of the implemented instance are affected by altered or new regulations?	• Which regulations are determining a specific part of the implemented instance? • Can parts of the implemented instance be altered or omitted without violating existing regulations?

Model-Instance-Bridge

Expectation concerning change of investment in compliance program within 2 years

(accenture 2014)

Expenses for compliance

(Solicitors Regulation Authority 2014)

"We agree that compliance is costly and will involve expenditure, but let me remind you that, in the final analysis, it is non-compliance which would prove costly and may endanger the very survival of the institution."
Dr. K C Chakrabarty, deputy governor of the Reserve Bank of India (English, Hammond 2014)

Exemplary Instantiation of the Meta-Design

Direction of Integration (Perspective)

Information Systems Development Layer

	Regulation ⇨ IS Element	IS Element ⇨ Regulation
Collaboration Modeling Tool	• Hierarchical representation of regulations • Traffic light visualization of regulation's implementation status • Links from regulations to process model elements	• Visualization of annotated regulations with icons • Links from model elements to regulations • Reminders for possible violations when changing model elements with annotated regulations
Enterprise Wiki	• Browsable regulation book • Links from regulation descriptions to activity descriptions and instances	• Information on relevant regulations directly connected to activity descriptions • Links from activity instances to regulations

Comments

MDT

References:
Abdullah, N. S., Sadiq, S., Indulska, M. 2010: "Emerging Challenges in Information Systems Researchfor Regulatory Compliance Management." in Proceedings of the 22Nd International Conference on Advanced Information Systems Engineering, B. Pernici (ed.), pp. 251-265.
accenture 2014: "Compliance's Seat at the Table - Hard to Earn, Hard to Retain. Accenture 2014 Compliance Risk Study." www.accenture.com/complincestudy2014.
English, S., Hammond, S. 2014: "Cost of Compliance 2014." Thomas Reuters Accelus. http://accelus.thomsonreuters.com/specialt-report/cost-compliance-survey-2014
Kharbili, M.E. 2012. "Business Process Regulatory Compliance Management Solution Frameworks: A Comparative Evaluation."Asia-Pacic Conference on Conceptual Modelling, A. Ghose and F. Ferrarotti (eds.), Melbourne, Australia.
Solicitors Regulation Authority. 2014. "Review of SRA Regulatory Management.: Survey findings report." http://www.sra.org.uk/documents/SRA/performance/regulatory-outcomes-q1-2014.pdf.

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