

**Paper digest** All areas Any time Type: Paper Query: (BPM or 'Business Process Management') and "Regulatory Compliance"

#### Related Work

[1] Kevin D. Barber; Frank W. Dewhurst; R. L. D. H. Burns; J. B. B. Rogers; "Business-process Modelling and Simulation for Manufacturing Management: A Practical Way Forward", BUS. PROCESS. MANAG. J., 2003. (IF: 3) [2] Ying Liu; Samuel Müller; Ke Xu; "A Static Compliance-checking Framework for Business Process Models", IBM SYST. J., 2007. (IF: 5) [3] Ulrich Lang; Rudolf Schreiner; "Managing Business Compliance Using Model-driven Security Management", 2008. [4] Bruno de Moura Araujo; Eber A. Schmitz; Alexandre L. Correa; Antonio J. Alencar; "A Method for Validating The Compliance of Business Processes to Business Rules", 2010. (IF: 3) [5] Marwane El Kharbili; Qin Ma; Pierre Kelsen; Elke Pulvermüller; "CoReL: Policy-Based and Model-Driven Regulatory Compliance Management", 2011 IEEE 15TH INTERNATIONAL ENTERPRISE DISTRIBUTED OBJECT ..., 2011. (IF: 3) [6] Guido Boella; Marijn Janssen; Joris Hulstijn; Llio Humphreys; Leon van der Torre; "Managing Legal Interpretation in Regulatory Compliance", 2013. (IF: 3) [7] Amal Elgammal; Tom Butler; "Towards A Framework for Semantically-Enabled Compliance Management in Financial Services", 2014. (IF: 3) [8] Shazia Wasim Sadiq; Guido Governatori; "Managing Regulatory Compliance in Business Processes", 2015. (IF: 4) [9] Patrick Delfmann; Michael Hübers; "Towards Supporting Business Process Compliance Checking with Compliance Pattern Catalogues - A Financial Industry Case Study", ENTERP. MODEL. INF. SYST. ARCHIT. INT. J. CONCEPT. MODEL., 2015. (IF: 3) [10] Mustafa Hashmi; Guido Governatori; Moe Thandar Wynn; "Normative Requirements for Regulatory Compliance: An Abstract Formal Framework", INFORMATION SYSTEMS FRONTIERS, 2016. (IF: 3)

#### Summary of the Related Work

Business process modelling (BPM) and business-process simulation (BPS) help to facilitate process thinking. (Barber et. al., 2003) suggest a practical way forward until hardware and software limitations are overcome. As enterprises increasingly use business process management systems to automate their business processes, technologies to automatically check the compliance of process models against compliance rules are becoming important. (Liu et. al., 2007) present a method to improve the reliability and minimize the risk of failure of business process management systems from a compliance perspective. This is because, especially with regulatory compliance, both business and government have to expect large financial and reputational losses if compliance cannot be ensured and demonstrated. (Lang et. al., 2008) illustrate the theory behind Model Driven Security for compliance, provide an improved and extended architecture, as well as a case study in the healthcare industry using the OpenPMF 2.0 technology. Regulatory compliance of business operations and practices is increasingly becoming an area of great concern for management, costing tens of billions of dollars in compliance actions a year. (Araujo et. al., 2010) present a method for validating business processes with respect to the business rules. In the discipline of business process management in particular, compliance is considered as an important driver of the efficiency, reliability and market value of companies. For this purpose (Kharbili et. al., 2011) contribute CoReL, a domain-specific modeling language for representing compliance requirements that has a graphical concrete syntax. Legal Knowledge Management systems that

combine repositories of legislation with legal ontologies can support the work of in-house compliance managers. (Boella et. al., 2013) extend the Legal Knowledge Management system Eunomos to deal with alternative interpretations of norms connecting it with Business Process Management systems. (Elgammal et. al., 2014) propose a semantically-enabled compliance management framework. In the heart of the framework is an integrated semantic repository incorporating regulatory, business and compliance knowledge; i.e., CMKB. (Sadiq et. al., 2015) present an overarching methodology for aligning business and control objectives. The chapter concludes with a discussion on the role of BPM as a driver for regulatory compliance and a presentation of open questions and challenges. In the business process compliance management literature, (Delfmann et. al., 2015) find an abundance of approaches supporting business process compliance checking. With this objective of (Delfmann et. al., 2015) at making a step towards comprehensive catalogues of compliance rules that can be used as input for business process compliance checking approaches. By definition, regulatory rules (in legal context called norms) intend to achieve specific behaviour from business processes, and might be relevant to the whole or part of a business process. (Hashmi et. al., 2016) present an abstract framework consisting of a list of norms and a generic compliance checking approach on the idea of (possible) execution of processes.

Daily limit reached