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ABSTRACT

Operational risk defined by the Basel Committee for Banking Supervision (2004 p. 144) as “[t]he risk of loss resulting from inadequate or failed internal processes, people and systems or from external events” still remains a novel and largely unexplored domain of research. Unlike more explored market and credit risk, operational risk is inherent to the operational activity of organisations and is potentially present in any processing transaction, at any step of operational business processes. This makes operational risk particularly dependent on the dynamic changes of the operational internal operational environment and minimizes the relevance of the *ex post* statistical approaches to operational risk modelling based on the operational loss data analysis. The increasing awareness of the systemic relationship between the operational risk and the organisational business process context calls for new approaches to operational risk modelling that would reflect the nature of this relationship and make possible the identification and analysis of operational risk according to the aspects of organizational business process dynamics. Following calls to advance the integration of operational risk and business process modeling paradigms, in this talk we present the model building process that incorporates operational risk into business process context through the principles of Value-Focused Process Engineering (VFPE). In order to guide the integrated risk-aware model building process, a multi-level research framework is adopted. It includes the following levels: scientific positioning (Critical Realism), modelling paradigms (Systems Thinking and Design Research) and the level of business process modelling methodology (Value-focused Process Engineering methodology). As an outcome of the model building effort, process-aware operational risk is conceptualized and formalized on the one hand, as a product of complex interactions between activity-based elements, and on the other hand, as a natural component of the value creation mechanism of an elementary function or a complex process. The proposed Risk-aware Value Focused Engineering (RaVFPE) formalism also formulates rules for decomposing risk in process models according to the organisational values, thereby enabling better risk visibility, reducing process complexity, and ensuring continuity of business processes. The resulting RaVFPE modelling methodology is illustrated in the context of supply chain risk management.



SPEAKER

Kristian Rotaru received his “Candidate of Science” degree (equivalent to Australian Doctor of Philosophy Degree) in Economics from State Investment Professionals’ Academy, Russia in 2005. In his thesis he has originated an evaluation model for assessment of the maturity level and economical effectiveness of business continuity management programs. The suggested model has had wide industry impact and has been successfully implemented in leading industrial and service companies – including members of the Russian Risk Management Society.

In his PhD research project started in Australia in 2006 within the Accounting Information Systems Group, Monash University, Kristian has pioneered an innovative methodology for modelling process-based risk: Risk-aware Value-Focused Process Engineering (RaVFPE). The RaVFPE methodology originated by Kristian has formulated rules for decomposing risk in process models according to the organisational values. The conceptual part of RaVFPE methodology has been published in top journal in the field: the Journal of Operations Management; and the formal part of RaVFPE methodology has been accepted for publication in Information Systems and e-Business Management Journal and presented at the 16th European Conference for Information Systems (ECIS 2008). Kristian’s contribution to the study of epistemological foundations of business process design has been reported at the 4th Biennial ANU Workshop on Information Systems Foundations, 2-3 October 2008.

Kristian is a referee for the Journal of Operations Management. Since 2008 he has also been a referee for the European Conference on Information Systems reviewing manuscripts in such areas as risk-aware business process modelling, methodological and epistemological foundations of Information Systems.

Kristian is a member of: a) Decision Analysis Society, Health Applications Section, Information Systems Society and Simulation Society of the Institute for Operations Research and Management Science (INFORMS); b) the Association for Information Systems (AIS); and c) the Professional Risk Managers’ International Association (PRMIA).