Centre for Risk Research Annual Report 2009

Staff Changes: Dr. Udechukwu Ojiako and Dr. Randevra Jayasekera were appointed as lecturers in Project Management and Accounting, respectively.

Conference organisation:

1. Organiser, Credit Scoring and Credit Control XI Conf., Edinburgh (LT).
2. Associate Sponsor, 14th International Conference on Gambling & Risk Taking, Tahoe, USA (JJ)
3. Co-chair, International Conference on Data Mining, Las Vegas (SL).
4. Program committee of International Conf. on Artificial Intelligence and Pattern Recognition (SL)
5. Session organiser/chair, EURO XXIII Conference, Bonn (LT, CM)
6. Organised international workshop on Pareto scholarship Manchester Metrop.Uni. (AM)

Research Students: 20 PhD students working on risk related topics, 3 graduated and 4 new students.

MSc Programmes: Students enrolled on risk related Masters Programmes in October 2009: 25 for Corporate Risk and Security Management and 39 for Risk Management. Professional accreditation by Institute of Risk Management was actively pursued for both programmes (MS).

Research dissemination/measures of esteem:

Risk related publications: 7 books; 55 papers presented at international conferences; 53 published in refereed journals and 6 in professional journals; 5 chapters in edited volumes; 11 working papers, 4 research reports.

Presentations:

1. Plenary speaker, Business analysis and optimization, Uni. Of Chile (LT).
2. Do novel algorithms pay-off ? Invited presentation at 23rd European Conf. on Op. Research (SL).
3. Keynote address: data mining in the financial services industry SAS M2009 Conf, Las Vegas (BB)
4. Keynote address: Project acceleration and runaway, International project Management day (TW)
5. Invited seminar on risk taking biases in real estate management, University of Cambridge (JJ).
6 Invited seminar, making forensic evidence reliable. Ontario's Centre of Forensic Sciences (ID)
7. Invited seminar, enhancing training. UK Army Skills Development Managers CPD (ID)
8. Presentation: reputation risk, to Geneva Association of Chief Risk Officers Conf., Warsaw (GH)
8. Invited seminar, human factors and scientific evidence. Univ.of California, Los Angeles (ID)
9. Invited seminar, how to make training and communications more effective: A cognitive neuroscientific perspective. Chartered Institute of Personnel and Development (ID).
10. Invited seminar, why forensic examinations are inherently biased, Univ. of Toronto (ID)
11. Seminar: Cognitive biases in judgement and decision-making College Link programme (PF).
12. Plenary speaker, OR51, Uni. Of Warwick (LT)
13. Plenary speaker, Financial crisis, causes, characteristics and effects, FCCCE, Western Aus (LT)
14. Roundtable discussant on "The risk world of 2020" (SW).
15. Seminar, stochastic modelling of production loading problems, Dalian Uni. of Tech., China (YW)

Established Links:

1. Link with National Uni of Singapore, credit risk/data mining (BB, CM)
2. Link with Hamburg Univ., application of combined forecasting models for competitive events in speculative markets (MS,JJ, SL, BB, CM).
3. Link with Univ of Leuven, and Univ College Ghent, Belgium (CM)
4. Links with the Univ. of Sydney, exploring optimal forecasting methodologies and wagering strategies in uncertain environments (JJ, MS).
5. Link with NTNU Trondheim, governance and early warning signals projects (TW)
6. Link with Stern Univ., New York, credit risk/data mining (BB).
7. Link with the Univ. of Melbourne, Generalised additive models for event prediction (JJ, MS).
8. Links with Univs of W. Carolina, US; Chulalongkorn, Thailand; Nigeria;Federal de Pernambuco, Brazil; Pukyong National, Korea; British Uni., United Arab Emirates, re project management (OU)
9. Links with Bilkent Univ. (Turkey) & HEC Montreal, Canada (TB).
10. Links with Uni. Cambridge, prediction of company failure; Boston Uni, clean energy/sustainability(RJ)

Editorial Boards:

Machine Learning (BB); Editorial Associate for "Information Polity" Journal (AM).
 Project Management Jnl and International Jnl of Project Management (TW)
Journal of Gambling, Business and Economics (JJ); Computers & Operations Research (TB).

Editing:

Co-editor, OR Insight (TB); Joint Editor, Jnl of the Operational Research Society (TW); Guest editor, Annals of Information Systems (SL) Editor, special issue of Machine Learning on swarm intelligence for knowledge discovery (BB); Editor, special issue of the IEEE Transactions on Neural Networks Jnl (BB).

Other research dissemination:

1.Member of Expert Working Group on Forensic Decision Making of the National Institute of Justice and National Institute of Standards and Technology (ID).
2.Member of the Research Advisory Board, Project Innocence, New York (ID)
3.Cover story in Risk Management Professional (SW).
4.Hosted visiting academics from Univ. Hamburg, modeling competitive event outcomes (MS, JJ).
5.The Centre hosted an active seminar series, involving both internal and external speakers throughout 2009.
6.Continued development of major database of over 150k separate betting markets (FM, MS, JJ)
7.Development of new database of individual trading decisions in financial markets (JJ, MS, PF)
8.Articles in New York Times, The New Yorker & New York Post re forensic evidence analysis (ID)
Other measures of esteem: 1.Identified as 'gurus' in risk management (SW) and risk taking and decision making (JJ) by the Independent Business School Guide
2.Member of PhD exam committee for 8 PhD students (BB)
3.Expert witness for Experian, Equifax and Transunion
4.Appointed Teaching Fellow (reputation risk) Said Business School, Oxford University (GH)
5.Member of BSI Risk management committee (SW)
6.Member of IRM special interest group on PPP/PFI inc. risk analysis/management (SW)

Current and new research grants:

1.Quantitative Risk Management Centre- risk management in the personal financial sector (£565k, of which £155k to Southampton, EPSRC, LT)
2. Efficiency of sports betting markets (£105k, *International Software Services*, JJ, MS).
3. Enhancing organisational performance via new mathematical/statistical approaches for improving forecasts of competitive events (£83k, EPSRC, MS).
4. Culture differences in decision bias (£3k, *School of Management* MS).
5. An exploration of the use of digital information by professional financial market traders and their resulting decision biases (£27k, *University of Southampton Adventure in Research Grant Scheme,* MS).
6. Speculative market structure, ecology, and individual behaviour: An agent-based computational modelling approach (£3k, *School of Management,* MS).
7. Assessing the roles of skill/chance in successful poker play (£3k, *Uni. of Southampton,* JJ)
8. Use of information in sports betting markets (£115k, *International Software Services,* MS, JJ)
9. Application of combined forecasting models in speculative markets (£3k, *Uni. of Hamburg/ Uni. of Southampton*: *Hamburg staff exchange programme*, JJ, MS)
10. Outcome prediction in speculative markets (£49k, *International Software Services* (JJ, MS, FM).
11. Cultural imperatives in the perception of project failure ($42k, *PMI*, UO,TW)
12. Forensic expert error ($867k, *Dept of Justice (DoJ) /Nat.Inst. of Justice* (*NIJ*), ID).
13., Quantified assessment/reliability of contextual info for forensic decision making ($349k, *DoJ / NIJ*, ID)
14. Personnel evaluation tools for forensic managers ($290k, *National Inst. of Standards and Tech.*, ID)
15.Basel II-compliant credit risk modeling- low-default portfolios(£80k, *EPSRC/SAS*, BB, LT, CM)
16. Manpower allocation for the 2011 census (£5k, *National Statistics Office*, LT)
17 Understanding human perception of environmental conflict (£62k, *ESRC/EPSRC*, IH)
18. Early warning signs in complex projects ($30k, *NTNU/RMIT/PMI*, TW)
19. Predicting competitive event outcomes (£2k, *Hamburg Uni. Staff Exchange Prog.*, JJ, MS)
20. Efficiency of sports betting markets (£115k, *International Software Services,* MS ,JJ)
21. Outcome prediction in traditional and speculative financial markets (£49k *William Benter*, JJ, MS, FM)
22. Assessing the roles of skill/chance in successful poker play (£3k, *University of Southampton*, JJ)

23. Application of combined forecasting models to competitive events in speculative markets (£3k
    University of Hamburg/ University of Southampton: *Hamburg staff programme,* JJ, MS)
24. Multistage stochastic model for air cargo forwarding problems (£3k, *Uni. of Southampton*, YW)
25. Storage and stacking logistics planning and mngmt (£7.5k, *Chart. Inst. of Logistics & Transport*, YW)

Commercial/external activities :

Advice provided:

1. Predictive analytics for SAS (BB)
2. Credit risk modelling for PNC/National City (BB)
3. Development and evaluation of demand forecasting methods for *Hapag Lloyd* (SL)
4. Assessment and evaluation in training medical surgeons for *the AO Foundation* (ID)
5. Reputation risk amongst key stakeholders, for Dept. of Schools and Families (GH)
5. Surveys on consumer perception, for *Place for People* (ID)
6. Improving soldier decision making and training, for the *Army Foundation College* (ID)
7. Development of Evaluation Tools for Forensic Science Managers for the Federal Bureau of
   Investigation, National Inst.of Standards and Tech. (NIST) and Dept of Defense (PF).
8. Development of Client Profiling System for World Spreads Ltd.
9. Basel Accord modelling for Coventry Building Society (LT)
10. Credit scorecard building for BBVA, Spain (LT)

Courses provide/designe:

1. Reputation risk, Strategic Leaders Programme, Oxford Uni. (GH)
2. Managing risk, the human factor: course delivered to senior managers of Bank SETA (JJ).
3. Designed/delivered outdoor grad. selection programme, inc. aspects of risk taking, for PWC (MA, CC, JJ).
4. Workshop on building E-Learning with the brain in mind, for the Learning and Skills Group (ID)

Other commercial/external activities:

1. Project risk analysis for Atkins/MOD (TW)
2. Continuing links with Cognitive Consultants International and World Spreads to examine biased manner in
   which investors employ information (MS,JJ))
3. Developed commercial links to exploit new patented financial instrument for risk management (JJ).
4. Professional work with European Assoc. for the Study of Gambling, European Assoc.of Decision Making,
   the Intl Association for Research in Economic Psychology and the Soc. for the Study of Gambling (JJ).

Key to initials used in Centre for Risk Research Annual Report

AM Dr. Alasdair Marshall; BB Bart Baesens; CBC Professor Chris Chapman; PF P. Fraser McKenzie; CC Professor Con Connell ; CM Dr. Christophe Mues; FM Dr. Frank McGroarty; GH Gary Honey; ID Dr. Itiel Dror; IH Dr. Ian Harwood;FM Dr. Frank McGroarty JJ Professor Johnnie Johnson; LT Professor Lyn Thomas; MA Dr. Melanie Ashleigh; MS Dr. Ming-Chien Sung; PF Peter Fraser-MacKenzie; RJ DR. Rana deva Jayasekera; SL Dr. Stefan Lessmann; SW Professor Stephen Ward; TB Dr. Tolga Bektas; TW Professor Terry Williams; UO Dr. Ude Ojiako;YW Dr. Yue Wu.