

Association for Information Systems AIS Electronic Library (AISeL)

AMCIS 2011 Proceedings - All Submissions

8-5-2011

An Intelligent Risk Detection Framework Using Business Intelligence Tools to Improve Decision Efficiency in Healthcare Contexts

Fatemeh Hoda Moghimi

PhD Student in the school of Business IT & Logistics, RMIT University, fatemeh.moghimi@rmit.edu.au

Dr. Hossein Seif Zadeh

RMIT University, Hossein.Zadeh@rmit.edu.au

Dr. Michael Cheung

Head of Department of Cardiology, Royal Children Hospital, Australia, michael.cheung@rch.org.au

Nilmini Wickramasinghe

RMIT University, nilmini.wickramasinghe@rmit.edu.au

Follow this and additional works at: http://aisel.aisnet.org/amcis2011_submissions

Recommended Citation

Moghimi, Fatemeh Hoda; Zadeh, Dr. Hossein Seif; Cheung, Dr. Michael; and Wickramasinghe, Nilmini, "An Intelligent Risk Detection Framework Using Business Intelligence Tools to Improve Decision Efficiency in Healthcare Contexts" (2011). *AMCIS 2011 Proceedings - All Submissions*. 173.

http://aisel.aisnet.org/amcis2011_submissions/173

This material is brought to you by AIS Electronic Library (AISeL). It has been accepted for inclusion in AMCIS 2011 Proceedings - All Submissions by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

An Intelligent Risk Detection Framework Using Business Intelligence Tools to Improve Decision Efficiency in Healthcare Contexts

Fatemeh Hoda Moghimi

PhD Student in the school of Business IT & Logistics, RMIT University, Australia
fatemeh.moghimi@rmit.edu.au

Dr. Hossein Seif Zadeh

Senior Lecturer in the school of Business IT & Logistics, RMIT University, Australia
hossein.zadeh@rmit.edu.au

Dr. Michael Cheung

Head of Department of Cardiology, Royal Children Hospital, Australia
michael.cheung@rch.org.au

Professor Nilmini Wickramasinghe

Professor in the school of Business IT & Logistics RMIT University, Australia
nilmini.wickramasinghe@rmit.edu.au

ABSTRACT

Leading healthcare organizations are recognizing the need to incorporate the power of a decision efficiency approach driven by intelligent solutions. The primary drivers for this include the time pressures faced by healthcare professionals coupled with the need to process voluminous and growing amounts of disparate data and information in shorter and shorter time frames and yet make accurate and suitable treatment decisions which have a critical impact on successful healthcare outcomes. This research contends that such a context is appropriate for the application of real time intelligent risk detection decision support systems using Business Intelligence (BI) technologies. The following thus proposes such a model in the context of the case of Congenital Heart Disease (CHD), an area which requires complex high risk decisions which need to be made expeditiously and accurately in order to ensure successful healthcare outcomes.

Keywords

Business Intelligence (BI), Risk detection, Decision support, intelligence continuum (IC), healthcare, Congenital Heart Disease (CHD).