Introduction to Enterprise System Integration: Issues and Answers

Marinos Themistocleous  
University of Piraeus, Greece  
themist@unipi.gr

Gail Corbitt  
California State University  
gorbitt@csuchico.edu

Paulo Rupino da Cunha  
University of Coimbra, Portugal  
rupino@dei.uc.pt

During the last few decades, Enterprise Systems (ES) have been widely investigated and applied in practice. In modern organizations, Enterprise Systems automate a variety of business processes and thus, organizations consider them as a fundamental part of their Information Technology (IT) infrastructures. ES support organizations to keep up with competition, improve their productivity, performance and achieve competitive advantage.

Over the years, this mini-track has been a forum to disseminate knowledge on ES. This mini-track runs for the 18th year in a row at HICSS and seeks to explore issues, both academic and organizational, surrounding the integration of Enterprise Systems. Cloud computing, mobile computing, big data and analytics, Service Oriented Architecture (SOA) and social media did not exist when we first run this minitrack. It was therefore, fortunate that this HICSS minitrack has become an annual event that observed and reported the interaction of these technologies with ES. Authors from around the globe presented their work and shared their views and plans for future research. It is a privilege that our minitrack observed ES evolution throughout these years and make history as one of the long-lasting minitracks at HICSS. It also has helped authors to improve their work and it resulted in the publication of special issues in various journals.

We initially run this minitrack by focusing on business, organizational and technical issues in Enterprise Resource Planning (ERP) systems. We also examined topics related to ERP training and education at a university level. We then aligned our topics of special interest to include latest technological advances in our area. Thus, we have investigated ERP and integration issues (mainly though middleware and SOA). We have explored the importance of cloud and mobile computing to support the implementation and delivery of ES and we have recently enhanced our topics to study the interaction of ES with big data, analytics and social media.

In this edition, two papers have been accepted for presentation at the conference (25% acceptance rate).

The first paper is entitled “The Internal Audit Performance: The Effectiveness of ERM and IT Environments” and was written by Wen-Hsien Tsai, Hui-Chiao Chen, Jui-Chu Chang and Hsiu-Li Lee. The paper contributes to the knowledge concerning the factors influencing the performance of Internal Audit (IA). It examines the factors related to the performance of IA in the context of internal auditors’ work environments (e.g. Enterprise Risk Management implementation, Enterprise Resource Planning, the use of auditing software and the internal auditors’). Yet this is an area with limited research with the authors proposing and testing their theoretical framework. The empirical data highlights the importance of internal auditors’ IT competence in improving the performance of IA. It also suggests that complete ERM implementation and effectiveness of ERP implementation have significant impacts on the performance of IA.

The second paper was written by Niki Kyriakou, Manolis Maragoudakis, Euripides Loukis and Marinos Themistocleous and it is entitled “Prediction of Propensity for Enterprise Cloud Computing Adoption”. The paper employs predictive analytics to predict which enterprises will exhibit a propensity for cloud computing adoption. The paper concludes that the most important predictors of cloud computing adoption propensity are related with technology including ERP systems.