

# Enhancing student learning of enterprise integration by deploying SAP R/3 into curriculum

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# Overview

- Current business curriculum
- Integrated view – benefits & challenges
- ERP software solutions in business curriculum
- Research – background and current work
- Findings
- Limitations and further study



# Current business curriculum

- Typical business curriculum:
  - Strong on individual functional areas/disciplines
  - Lacks multi-disciplinary perspectives in teaching and learning strategies and curriculum design
  - Designed based on old management paradigms relevant to a manufacturing-based economy
  - Do not have cross-functional integration and business process orientation embedded in curriculum
  - Graduates view their career from functional perspective
- Business graduates generally lack ‘employability skills’ considered critical by employers/industry and professional groups
  - Cross-functional business process orientation
  - Integrated business view
  - Generic graduate attributes



# Integrated view

- Some benefits:
  - An ongoing process
  - Achieving an expert status requires high degree of self-awareness, critical thinking and deep learning
  - Pedagogically encourages students' deep learning and facilitates better understanding of intersections & interactions
- Some attempts by business schools
  - Simulation, business games, integrated case studies that deal with underlying links and inter-dependencies
  - Capstone projects that incorporate problem-based learning, experiential learning, application of tools/techniques
  - Team teaching
  - Usage of software tools [enterprise-wide integrated information systems or enterprise resource planning (ERP) software]



# ERP software solutions

- A packaged software solution that integrates information and processes across the enterprise and provides a common link between traditional functions in real-time information environment
- Challenges:
  - Uncertainty of pedagogical benefits
  - Complexity & challenges of designing and administering assessment tasks
  - Administrative and academic challenges of managing the system, its upgrades and maintenance
- Though adoption by University business schools is slow, anecdotal evidence so far is good
- About 100 universities all over the world include ERP software in their curricula (nature, extent & focus vary widely)



# Background to research

- Environment and past work:
  - Business Information Systems (BIS) – best-positioned discipline
  - One PG unit and one UG unit introduced in 2003/2004
  - Feedback from students – positive so far
  - Its usage being extended to other disciplines
- Objectives of current research:
  - To develop an understanding of business processes relevant to HR function and their integration with other functions
  - To impart integrated business view with the help of ERP system
  - To measure its effectiveness



# Current Research

- Data collection:
  - Questionnaire survey method ('Likert' scale 1 to 5)
  - Self-assessment of their understanding and knowledge
  - Evaluation of learning effectiveness
  - Qualitative comments
- Demographics:
  - Optional
  - 54 valid responses
  - 58% employed currently
  - 59% have no previous work experience



# Findings (1)

- Perceived level of understanding and knowledge gain is significant in:
  - Inter-dependencies between HCM and other functions
  - Information flows across various activities and functions
  - Processes and activities in human capital management
- Improvement in their integrated view of business because of the hands-on nature of the software, exposure to the real-world business contexts, processes and transactions
- Positive impact of ERP systems on work environment
- Respondents with no experience reported higher understanding of integration concepts, processes and interdependencies
- Performance in assessment task is good (3.5 in a scale of 1 to 5) and consistent with the self-assessment of knowledge on various dimensions



# Findings (2)

- Significant gain on process knowledge is noticed - critical for bus. Graduates
- Students are perceiving a benefit and appreciating the integrated view of business and deep learning that is taking place
- Students tend to get stuck with the software and its complexity rather than integrated view and cross-functional elements facilitated by software; appears to be influenced by other independent variables
- Some significant differences noticed between students with some experience and those with no business experience
- Is resource intensive and challenging (especially in the design and administration of assessment tasks)



# Limitations & further study

- Limitations:
  - Designed and administered by author: inherent bias
  - General limitations of questionnaire survey and self-assessment of knowledge
  - Small sample size and
  - Limited exposure to the software (novelty factor)
- Further study:
  - To collect and analyse students' responses (cognitive and behavioural) in long term
  - To analyse the influence of different learning styles and processes on the self-efficacy and performance of students
  - Extend to other discipline courses in Accounting, logistics and HR and evaluate effectiveness

