CEF 512: ERP System Engineering

Presenting the paper: IDENTIFYING CRITICAL ISSUES IN ENTERPRISE RESOURCE PLANNING (ERP) IMPLEMENTATION

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Brief overview

- Results of an empirical study that surveyed manufacturing companies
- Midwestern region of the USA to determine the critical issues affecting successful ERP implementation.
- Survey was carried out with 2 consultants.
 - 689 region companies \rightarrow 200 sampled \rightarrow 36 questionnaires \rightarrow 18%response rate(why?)
- Through the study, eight factors were identified that attempts to explain 86% of the variances that impact ERP implementation

Why ERP systems fail?

- These failures were not because the ERP software were coded incorrectly but
- Companies failed to match the true organizational needs and systems required to solve the business problems

Failure cases of some ERPs

- Unisource Worldwide, Inc. wrote off US\$ 168 million
- FoxMeyer Drug went bankrupt in 1996 and files a US\$ 500 million lawsuit against SAP

Critical factors and ERP implementation

Table 5
Pearson correlation between critical factors and ERP implementation

Critical factors	Correlation
Project management principles	0.579 ^a
Feasibility/evaluation of ERP project	0.499a
Human resource development	0.327
Process re-engineering	0.576 ^a
Top management support	0.695 ^a
Cost/budget	0.431 ^a
It infrastructure	0.182
Consulting services	0.595 ^a

a Correlation is significant at the 0.01 level (two-tailed).

Critical Issues

- <u>Top Management</u>. Over two-thirds of the ERP projects were initiated by top management
 - Therefore, their encouragement and support through the project implementation cycle should be invaluable
- <u>Human resource development</u>. Companies should develop detailed plan for training end-users.
- ERP users work with implementation team.
- This helps facilitate implementation process leading to
 - Speedy
 - Successful implementation
 (mustard seed engineering experience)

Limitation of the Study

 The results obtained from this study may not be generalizable considering the size of the sample, however, the results provide valuable insights for managers and executives associated with ERP implementation

Relation to course objectives

- Finding and knowing the critical factors of ERP system implementation will help us build better ERP or better implement ERP systems.
- In the deployment of these ERP to companies and enterprises, with the knowledge of implementing ERP systems we have gathered from the course, this will enhance our skills in the deployment process.

Proposed papers/projects

- Implement an ERP in University of Buea for class room scheduling and time table generation.
- Develop an ERP system that will enable the University of Buea to manage results for the entire school from different faculties but using a central database.

Thanks Questions??