Enterprise Resource Planning Systems

Paul Hawking
Victoria University
Australia

Agenda

1. Current issues
2. ERP Systems
3. Introduction to SAP
4. ERP Implementation

What is happening to you?

What are the major issues in relation to IT in your workplace?

Background

- Computing environment
- Different systems used
- Type of information processed
- Number of users
- Technical support

Issues

- Quality of data
- Support
- Security
- Access
- Training etc.
- Outsourcing

Research

CSC survey of 1009 IS Executives in 31 Countries

- Optimising Enterprise Wide Systems (64.8%)
- Optimising Organisational Effectiveness (62.6%)
- Organising and Utilising Data (61.4%)
- Connecting to Customers, Suppliers, and Partners Electronically (57.2%)
- Protecting and Securing Information Systems (55.3%)

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Australia Post
ABC
Dept of Land & Water Conservation
Waterways Authority
Bankstown City Council
Australian Taxation Office
Department of Defence, Department of Immigration and Multicultural & Indigenous Affairs
Dept of Emergency Services
Health Insurance Commission
Legal Aid Commission NSW
Department of Natural Resources & Mines
Centrelink
Wollongong City Council
Commonwealth Director of Public Prosecutions
Dept. of Communications, Information Technology and The Arts
Dept of Natural Resources & Environment
Dept of Main Roads
Dept of Land & Water Conservation
Dept of Human Services
Old Dept of Families Youth and Community Care Old
Waterways Authority

Queensland Department of Health
Queensland Rail
Queensland Department of Housing
Queensland Police Service
Queensland Treasury
Queensland Department of Natural Resources
Queensland Electricity Transmission
NSW Police Service
NSW Treasury
NSW National Parks and Wildlife
NSW Dept Agriculture
NSW Dept Transport
NSW Dept Fair Trading
NSW Dept Community Services
Bureau of Meteorology
Department of Defence
TAB Limited
**ERP Systems**
- What is an ERP system?
- Why an ERP system?
- ERP vendors
- Impact on Organization
- ERP Risks

**Business Environment Legacy**

**Business Process Definition**
- A business process describes a sequence of activities or tasks for the creation of goods and services, affecting the success of the company.
- Each process consists of a sequence of steps.
- In a company there are several individual processes that are typically interdependent.

**Focus on Core Business Processes**

A core process is a process that essential for the operation and the success of a company.

**Example**

- Sales and Distribution
  - Order
  - Delivery
- Production
  - Planned production
  - Production order
  - Confirmation
- Purchasing
  - Purchase order
**Business Process Engineering**

It helps companies to:
- Resist the temptation to automate obsolete processes with modern technology
- Stress the importance of simplicity
- Search for new ways to organize work
- Establish change as a constant of business in today’s world
- Recognize and realize the potential of new technology

**Why ERP?**

- **Technology Rationales**
  - Year 2000
  - Disparate Systems
  - Poor existing systems
- **Strategic Rationales**
  - Added functionality
  - eBusiness
- **Business Process Rationales**
  - Personnel reduction
  - IT cost reduction
  - Productivity improvements
  - Financial cycle close
- **Competitive Rationales**

**Business Process Engineering**

**Example: Core Business Process Solution Landscape**

**ERP Drivers**

- ERP systems are the result of business process engineering.
- They are information systems that facilitate the flow of information between all functions within a business.
- They organise and execute the millions of transactions that are fundamental to many large businesses.
- One huge database for storing transaction data.
- Eliminate many of the existing legacy systems.
ERP Systems

Accounting
Manufacturing
Sales & Distribution
Human Resources

TPS
MIS
EIS

ERP Evolution

<table>
<thead>
<tr>
<th>1970s</th>
<th>1980s</th>
<th>1990s</th>
<th>2000s</th>
</tr>
</thead>
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<td>SFA</td>
<td>e-Commerce</td>
<td>e-Business</td>
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<tr>
<td>Planning</td>
<td>RMR</td>
<td>SCM</td>
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<td>MRP11</td>
<td>FMIS</td>
<td>ERP</td>
<td>ERP</td>
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</tbody>
</table>

ERP Benefits

- Lower Lead Times
- Financial Close Cycle
- Supply Chain Management
- Cost Reductions
- Productivity Improvements
- Software Life Cycle
- IT Cost Reduction
- Cash Management
- Procurement
- Revenue/Profit
- Sales & Distribution
- Manufacturing
- Human Resources

Toyota’s Benefits

- Lower Lead Times
- Financial Close Cycle
- Supply Chain Management
- Cost Reductions
- Productivity Improvements
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- Manufacturing
- Human Resources

ERP Vendors

- The global market for ERP software, which was $16.6 billion in 1998, is expected to have a compound annual growth rate of 32 percent, reaching more than $66 billion in sales by 2003 (AMR Research, 1999).
- Top 27 ERP vendors have reported 40% growth.
- There is an expected 37% annual compound growth from 1997 to 2002 with the revenue of $52 billion (Busse).
- Top ERP system vendors include:
  - SAP
  - Oracle (J D Edwards, Peoplesoft)
  - Microsoft

Asia Pacific – Peer Group Shares

(rolling 4 quarters, based on software revenues)
The largest 5 employers use SAP
3 out of top 5 private companies
4 out of top 5 public companies
2 out of top 3 building materials companies
2 out of top 3 diversified resources companies
2 out of top 3 diversified industrials companies
2 out of top 3 energy companies
4 out of top 5 communication companies
10 out of top 12 largest IT users

SAP Australia by Industry
- Public Sector 16.5%
- Service Providers 11.4%
- Consumer Products 8.3%
- High Tech. & Electronics 5.9%
- Retail 5.9%
- Higher Ed. 5.2%
- Utilities 4.4%
- Mining 4.1%

mySAP Business Suite & mySAP ERP
mySAP Business Suite
- mySAP PLM
- mySAP SCM
- mySAP SRM
- mySAP ERP
- mySAP CRM

mySAP ERP Versus mySAP Business Suite

SAP in Australia
- The largest 5 employers use SAP
- 3 out of top 5 private companies
- 4 out of top 5 public companies
- 2 out of top 3 building materials companies
- 2 out of top 3 diversified resources companies
- 2 out of top 3 diversified industrials companies
- 2 out of top 3 energy companies
- 4 out of top 5 communication companies
- 10 out of top 12 largest IT users
### SAP Implementation

- SAP partners
  - Hardware
  - Software
  - Services
  - ASAP Methodology

### ERP Example

- 5,500 SAP users
- 6 countries
- 8 major business units
- Over 40 key systems replaced, including primary manufacturing support system, corporate and field financial and purchasing systems, marketing expense control systems, and project management systems
- 7,500+ SAP transactions, 100+ reports, 150+ forms, 50+ interfaces to existing systems

### Time Frames for Implementation

<table>
<thead>
<tr>
<th>Business Complexity</th>
<th>Zone 1 Low</th>
<th>Zone 2 Medium</th>
<th>Zone 3 High</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>12-18 months</td>
<td>18-36 months</td>
<td>24-48+ months</td>
</tr>
<tr>
<td>Medium</td>
<td>6-9 months</td>
<td>12-18 months</td>
<td>18-36 months</td>
</tr>
<tr>
<td>Low (Vanilla ERP)</td>
<td>3-6 months</td>
<td>6-9 months</td>
<td>12-18 months</td>
</tr>
</tbody>
</table>

### Performance after going live

- ... 4 months to bring back to legacy system baseline
- ... 6 months of decreased productivity
- ... 2 to 3 month performance decline due to the normal learning curve
- ... 6 months of stabilization after go-live
- ... reality is this hurts the business in the first 6 months

Source: Deloitte Consulting and Benchmarking Partners

*(Based on a study of 62 companies that have gone live with an ERP system)*
**ERP Implementation Budget**

- Design and implementation: 35%
- Software: 10%
- Hardware: 10%
- Training and change management: 35%
- Data cleansing: 10%

Hammer 20000

**Critical Risk factors**

- Failure to redesign business processes to fit the software
- Lack of senior management support
- Insufficient training and re-skilling
- Lack of ability to recruit and retain qualified ERP systems developers
- Insufficient training of end users
- Inability to obtain fulltime commitment of business areas to project management and project activities.
- Lack of integration
- Lack of proper management structure

**Critical Risk Factors (continued....)**

- Insufficient internal expertise
- Lack of a champion
- Lack of business analysts
- Failure to mix internal and external personnel
- Failure to emphasise reporting development
- Insufficient discipline and standardisation
- Ineffective communication

**Lifecycle of ERP Implementations**

- Never Complete: 49%
- Funding Over: 1%
- Legacy Turned Off: 2%
- Stabilization Achieved: 16%
- Capabilities Realized: 10%
- Benefits Realized: 19%
- Go Live: 34%

**ERP Implementation Evolution**

- Continuous Change
- New Business Requirements
- Y2000
- New R/3 Functionality
- Mergers
- Upgrades
- Legal Changes

**Post Go Live – Moving Forward**

Findings and Conclusions

- Ongoing Support: 3%
- Reporting: 2%
- Business Performance: 5%
- Change Management: 12%
- Software Functionality: 4%
- Discipline: 2%
- Post-Live Transition: 8%
- Consultants: 3%
- Program Management: 0%

Note: Based on multiple answers per respondent
Source: Deloitte Consulting and Benchmarking Partners (Based on a study of 62 companies that have gone live with an ERP system)
ERP Risks

- Technical Risks
  - Existing Technical infrastructure
  - Legacy systems
  - Operating/Network systems
- Business Risks
  - Choice of ERP
  - Insufficient resources
  - Implementation choices
  - Future partnerships
- Organisational Risks
  - Executive support
  - Consultants
  - People issues
  - Upgrades