

# UoG / UESTC Joint School of Engineering

## Engineering Project Management & Finance

## Engineering Economics: Outsourcing, Insourcing, Rightsourcing

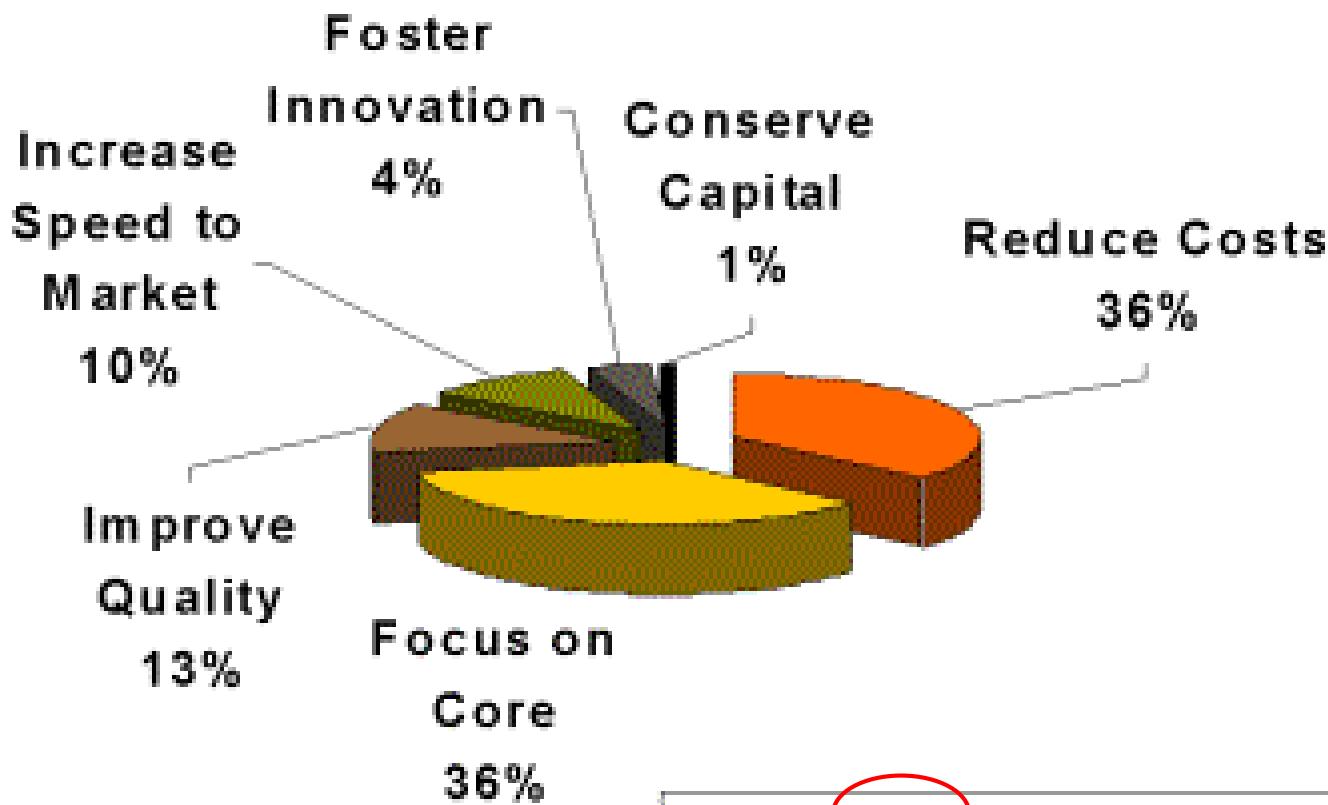
Dr Duncan Bremner / Dr Imran Shafique Ansari



- **Outsourcing -**
  - “the strategic use of outside resources to perform activities traditionally handled by internal staff and resources” Dave Griffiths
- **Why Outsource?**
  - Provide services that are scalable, secure, and efficient, while improving overall service and reducing costs

# Why do Companies Outsource?

## Top Reasons for Outsourcing



Source: The 2001 Outsourcing World Summit

- An “easy way” to increase profits
- Nike, Cisco, Apple outsource most of their manufacturing
  - Each could focus on research, marketing
  - Each has gotten into trouble
    - **2001 – Nike reported unexpected profit shortfalls due to inventory problems**
    - **2000 – Cisco had to write down billions in obsolete inventory**
    - **1999 – Apple was unable to meet customer demand for new products**

- **Traditional role - reaction to problem**
  - Reduction and control of costs
  - Avoid large capital investment costs
  - Insufficient resources available
- **Modern role – business strategy**
  - Allows company to focus on their core competencies
  - Keeping up with cutting-edge technology
  - Creating value for the organization and its customers
  - Building partnerships

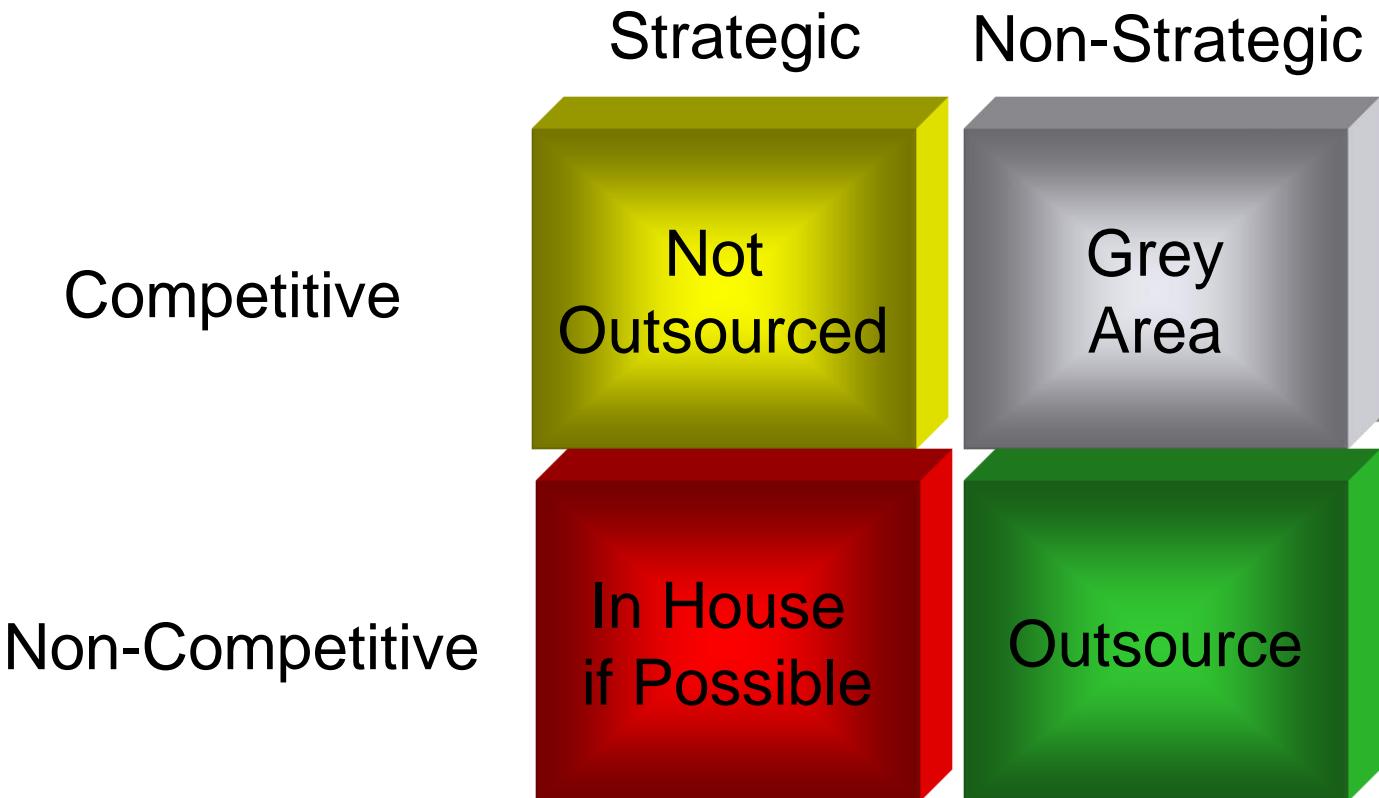
# What Can be Outsourced?

- system integration
- data network
- mainframe data center
- voice network, internet/intranet
- maintenance/repair
- applications development
- e-commerce
- end-user support system



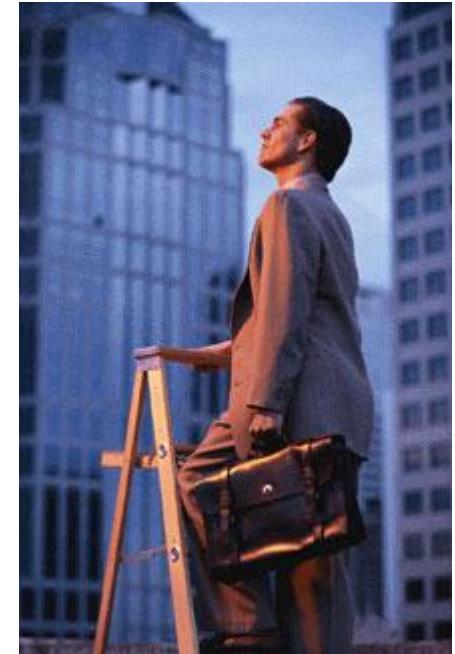
**Efficient Managerialism**

## PricewaterhouseCoopers Model



# How to Implement Outsourcing

- Program initiation
  - Identify critical and non-critical business activities
  - Identify possible outsource candidates and initiate discussion on options
- Program implementation Operations
  - Transferring staff
  - Service Level Agreement (SLA)
  - Establish communications between partners
  - Actual transfer of the service
  - Establish management procedures
- Contract agreement



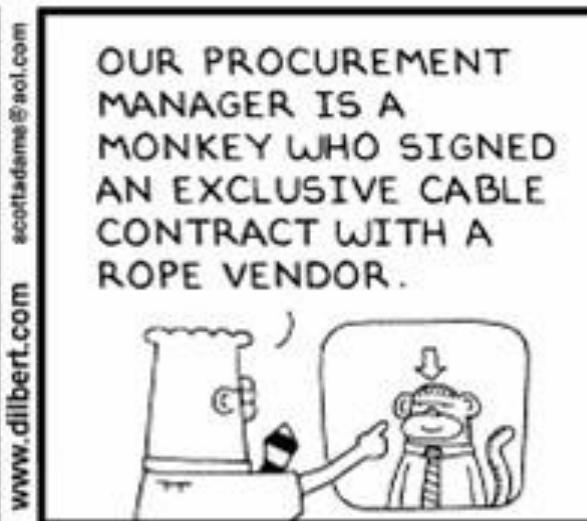
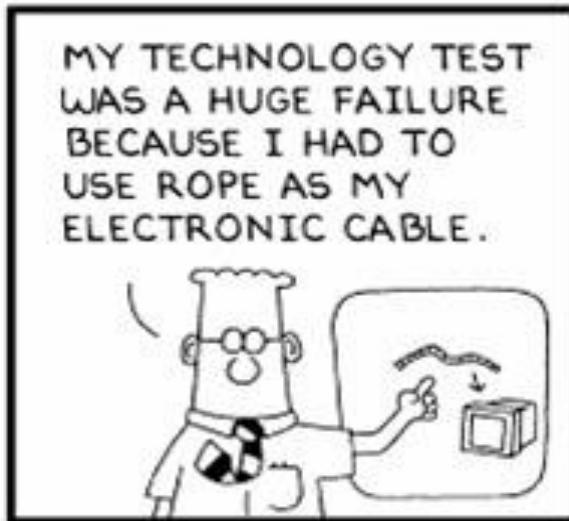
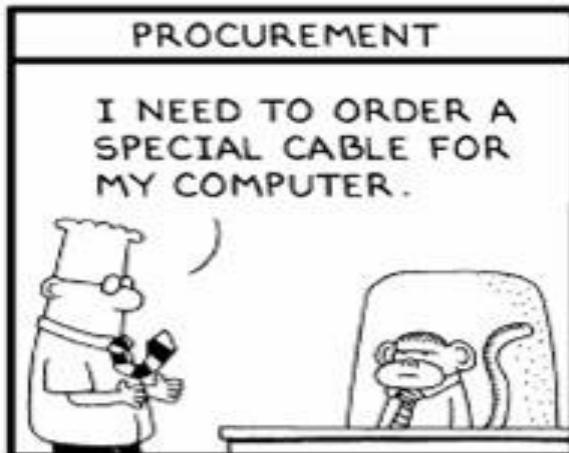
# Problems With Outsourcing

- **Loss of Control**
- **Increased cash outflow**
- **Confidentiality and security**
- **Selection of supplier**
- **Too dependent on service provider**
- **Loss of staff or moral problems**
- **Time consuming**
- **Provider may not understand business environment**
- **Provider slow to react to changes in strategy**



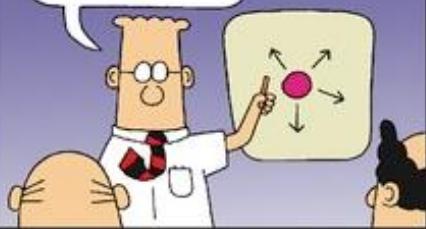


# Problems With Outsourcing





AS REQUESTED, I PUT TOGETHER A LIST OF FUNCTIONS WE SHOULD OUTSOURCE.



E-mail: SCOTTADAMS@AOL.COM

I LIMITED MY LIST TO THINGS WE DON'T DO WELL.



MANAGEMENT, SALES, MARKETING, QUALITY CONTROL, ENGINEERING, FINANCE, HUMAN RESOURCES, AND CUSTOMER SUPPORT.

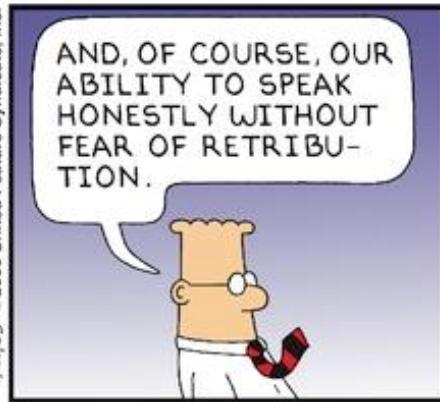


...SITTING AROUND A BROWN TABLE.



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AND, OF COURSE, OUR ABILITY TO SPEAK HONESTLY WITHOUT FEAR OF RETRIBUTION.



YOU WILL NEVER GET ANOTHER RAISE AS LONG AS I'M ALIVE.



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THAT LEAVES US WITH OUR CORE COMPETENCE...



WELL, THAT PUTS A LOT OF PRESSURE ON THE BROWN TABLE STRATEGY.



# Example: E-Commerce Hosting Solution

- WAN bandwidth
- IT professionals
- Hardware/Software
- Security issues
- 24/7 support
- Note: This example was created before Cloud Computing existed.
  - How do you think Cloud computing has impacted this business?

- ***In-House***

Activity costs, inclusive of labor and overhead

Raw materials, inclusive of shipping, storage, handling and overhead

Cost of invested capital

+ Estimated impact of outsourcing on costs and revenue

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Total cost of performing activity in-house

- ***Outsource***

Proposal for outsourcing

Anticipated future pricing adjustments

Additional one time costs of outsourcing

+ Additional on-going costs of outsourcing

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Total cost of outsourcing activity

# Example: Database Outsourcing

- Health Areas
  - Clinic
  - Preventive Care
  - On-going support
  - Enhancement Care
- Benefits
  - Savings of 25% - 40%
  - Pay-per-gig pricing
  - Off-site data storage
  - Automated
  - Free up server space



“The total cost of ownership for an in-house email system is likely to be in the range of \$200 to \$400 per user per month.....  
Outsourcing should reduce TCO by 10% to 30%.” Ferris Research, June 2001

## Typical Services

- **Email Hosting**
  - Email@yourdomain
  - POP3 access
  - IMAP4 access
  - Outbound SMTP
  - Virus Scanning
  - External POP Access
- 24x7 Web-based Support
- Spell Check
- Email Forwarding
- Unlimited Attachment Size
- Unlimited Storage Folders
- Multiple attachments

- **Custom Webmail**

- Customizable, private-label WebMail interface
- Wireless WAP Access
- Automated User Signups
- Integrated Ad Server
- Customizable to any language in the world
- Programming API's for front and back end system integration



- Companies have now recognised that ‘outsource everything’ is not optimum
  - Service and quality levels
  - Not as cost effective as calculated (management overhead)
  - Outsource companies get ‘wise’ to the downsides; insist of volume and product ‘ramp’ agreements
  - Outsourcing core activities loses company value
  - Job losses / overseas supplier not political acceptable
- BUT... properly managed and good partners
  - Can deliver enhanced customer and client benefit
  - Outsource to skilled partner exploits strengths (not just cost)

- The latest ‘fashion’ in business is rightsourcing
- Previous desire to ‘outsource everything’ damaged company value; reduction in share price
- ‘Foolish’ companies outsourced key strategic value operations and suffered consequences
- Rightsourcing is taking a careful look at customer needs, strategic plans for the company, and recognising core competencies
  - Does this sound like common sense?

# Post Lecture 9 Reading Material

- Read the following:
  - ★ – CIPS PG Outsourcing Guide
  - ★ – Outsourcing revolution\_ Corbett
  - ★ – Insourcing: Manufacturing - A Viable Solution in a Global Economy?

Skim

Read

Understand

Critique