



Where business comes to life

INMR86

# Business Technology Consulting

Dr V Michell



Where business comes to life

# INMR86 Business Technology Consulting

## 1.0 Introduction

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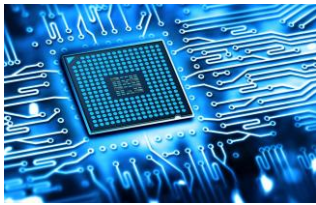




## Assessable Outcomes

On the completion of the course students will be able to:

- Understand Business technology consulting **concepts and principles** and how in the form of consulting methodology they can be applied appropriately.
- Understand how consulting **tools and solution frameworks** can be applied to establish a holistic analytical view of an organisation (business, organisation and IT systems) to support the development of solutions that create business value and sustainability.
- Understand how to apply consulting methodology and techniques (using quantitative and qualitative methods) to conduct an analysis of the business (including its strategy, business, organisation and technology performance and constraints,) to benefit the business and its stakeholders.
- Use consulting techniques to produce a set of requirements and plans which assist decision makers to formulate business technology (e.g. IT systems) solution strategies that ensure business sustainability.
- Understand how to evaluate client needs and issues, apply appropriate methods and produce and analyse results to deliver on-going and long-term client business improvements



## Business Technology Consulting

## Reference Information

The module book is:

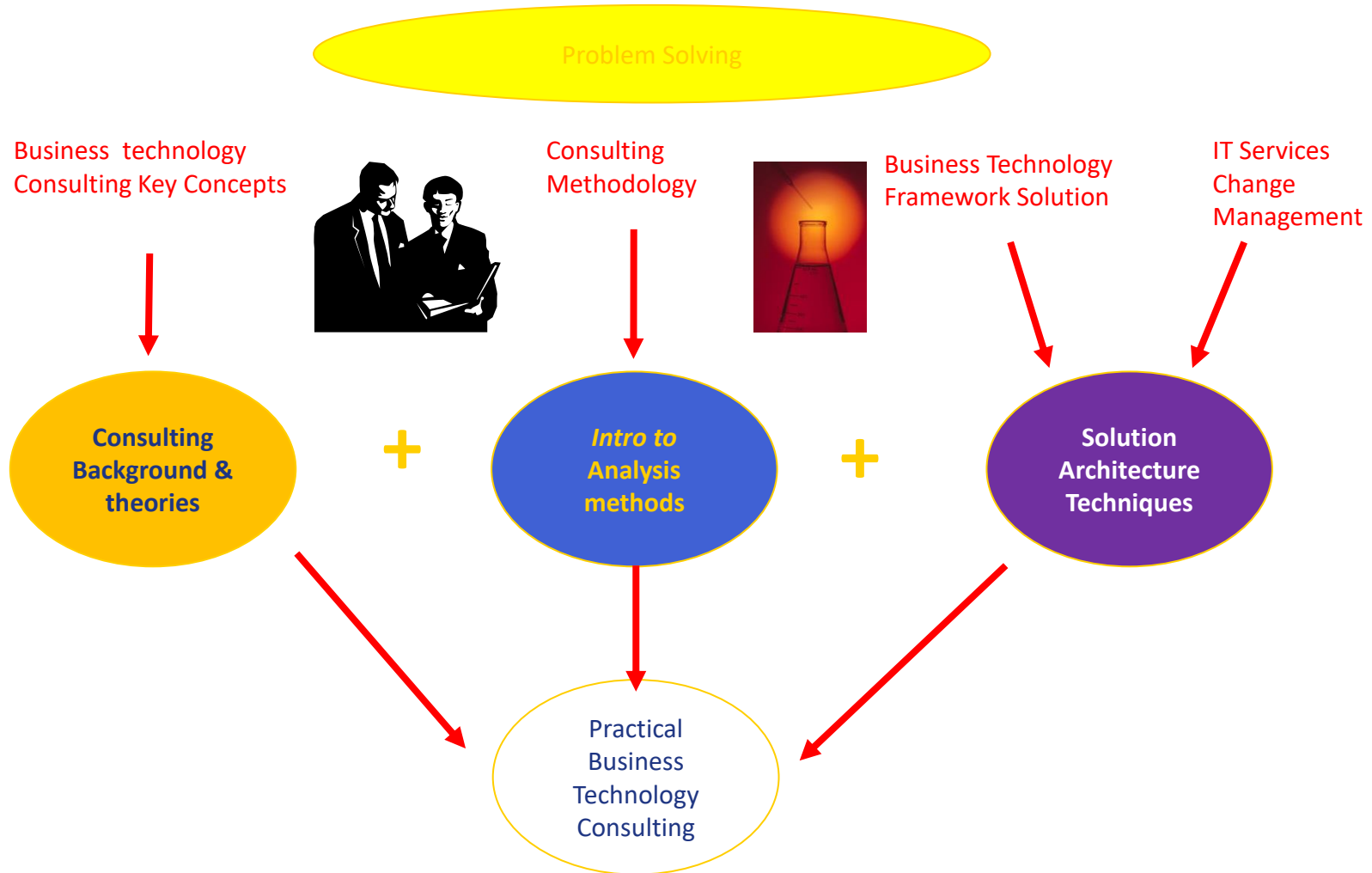
**Biggs D. Management Consulting – A Guide for Students**

*...mainly for your general advice and development as a technology consultant*

**You will need to read and follow up papers and references for most of the course as much of the work is based on research and best practices**

For module references to papers and journals please see:

# BTC Overview





Where business comes to life

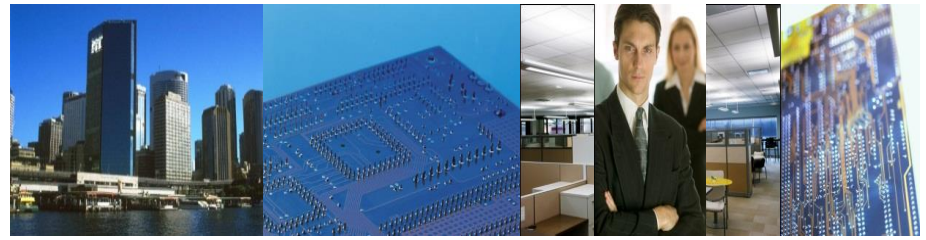
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# **Business Technology Consulting**

## **1.1 Consulting Key Concepts**

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# Unit 1: Content



- Consulting Origins and Types
- Consulting Principles
- Consulting Skills
- Consulting Behaviour

**Learning Objectives**      After completing this unit you should:

- Understand the origins of consultancy and the key structures
- Be able to use and apply consulting principles
- Understand and support necessary consulting behaviours



# 1.1 Consulting Key Concepts

## *WHAT IS CONSULTING?*



<https://www.omniwatersolutions.com/8-benefits-of-choosing-an-effective-business-management-consultant-for-your-small-business/>

## *WHAT IS NEEDED IN BUSINESS TECHNOLOGY CONSULTING?*



# 1.1 Origins

## Modern Business Consultancy started in 19<sup>th</sup> century

1886 Arthur D Little - Technical Research Consultancy - by MIT Professor

1890 Fredrick Winslow Taylor - workstudy

1893-98 Frederick Winslow Taylor - one of first consultants *Consulting Engineer systematising shop management and manufacturing costs* [C5.6]

1914 Booz, Allen Hamilton – Management Consultancy - Edwin G Booz

1926 McKinsey - Strategic Management Consultants

1938 W S Atkins (UK)

1960s Boston Consulting Group – Management and Strategy Analysis

- Big 6 Accountants :

Arthur Andersen, Coopers & Lybrand, KPMG, Arthur Young, Deloitte, Ernst & Whinney

- Technology – Cap Gemini

- Boutique – Bain

1988 Estimated 100,000 consultants globally [C5.6]

1998 Management Consultancies as Knowledge workers [Alvesson 1995 in C6.57]

2001 Accenture, Cognizant + sourcing consultants

2007 Recession + consolidation

2010+ Enterprise Architecture + consulting

*See Biggs pp3-21*



# 1.1 Origins

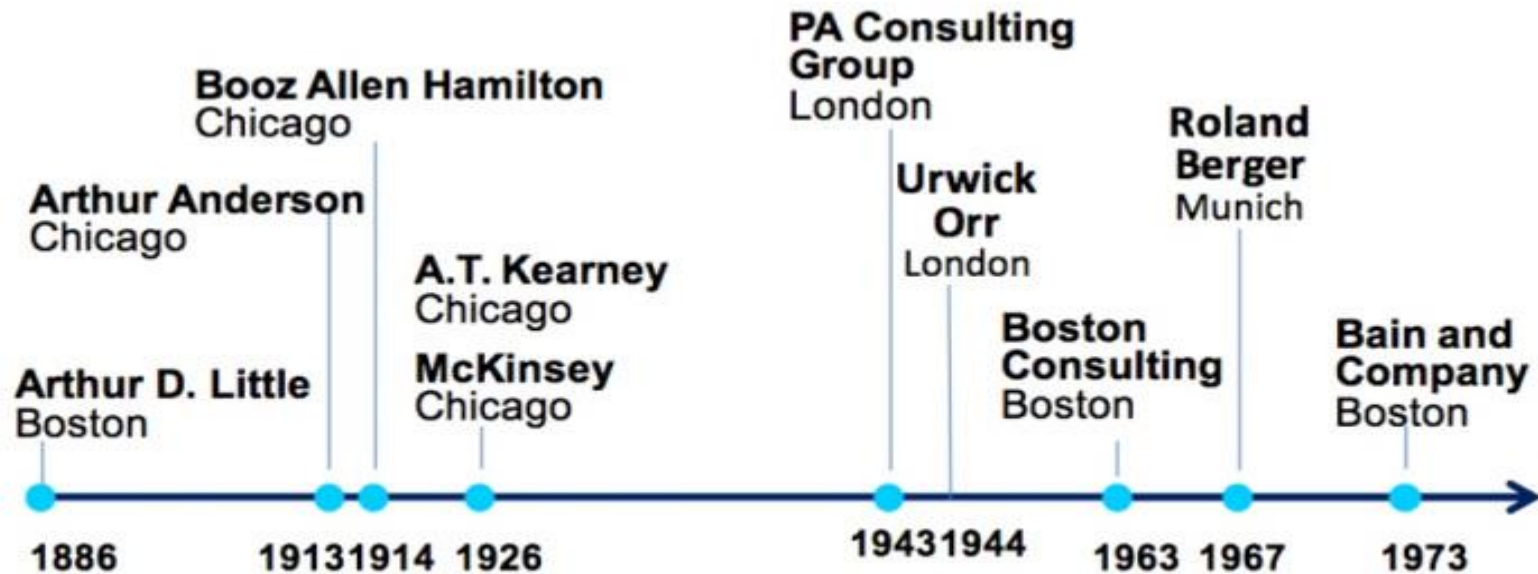


Figure 2-3: The Major Brand Management Consultancies: Where and When Founded (Adapted from Panetti, 2007)

<https://chaturvedimayank.wordpress.com/2019/03/26/the-origins-and-history-of-management-consulting/>



# Origins (cont.)

Consultancy Growth – **Driven by radical and discontinuous business environment change:**

- International competition
- Technology change
- Recessionary forces
- Changing management requirements

Pre 70s    Small specialist and technical consultancies

1970s    Introduction of IT  
          'big 8' accountant related consultants

1980s    BPR, New technology PCs etc

1990s    The web

2000    Y2K, EMU

2000+    Outsourcing + consulting culture

2009    Recession and bank failures

2010    Disruptive digital technology

2015    Environmental and sustainability issues

2020    Covid & Brexit



***...Change is the oxygen of consultants!***

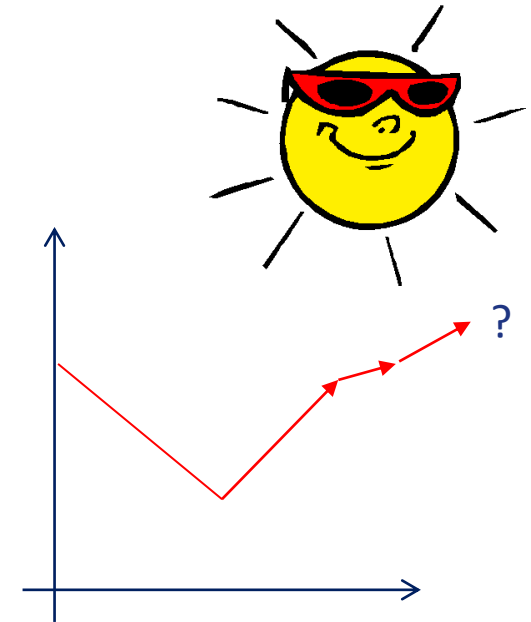
# Consulting Trends

Consulting is cyclical and follows national and world events:

- 2000-2001 stock market failure reduced ICT consultancy
- 2008-9 failure resulted in cutting costs and consultancy!
- 2010-11 Opportunities for cost saving and rationalisation

Via disruptive technologies

- 2012 Situation:
  - companies developed more internal consultants
  - small consultancy companies taking some market share (lower overheads and specialisation)
- External Consultants
  - short term engagements
  - spending very restrained
  - Government spending reduced
  - IT consulting still growing
  - IT outsourcing most profitable with consulting as loss leader
  - Some projects eg rail infrastructure in UK
- 2015 Environmental regulations
- 2020 Brexit & Covid19 regulations and technology changes



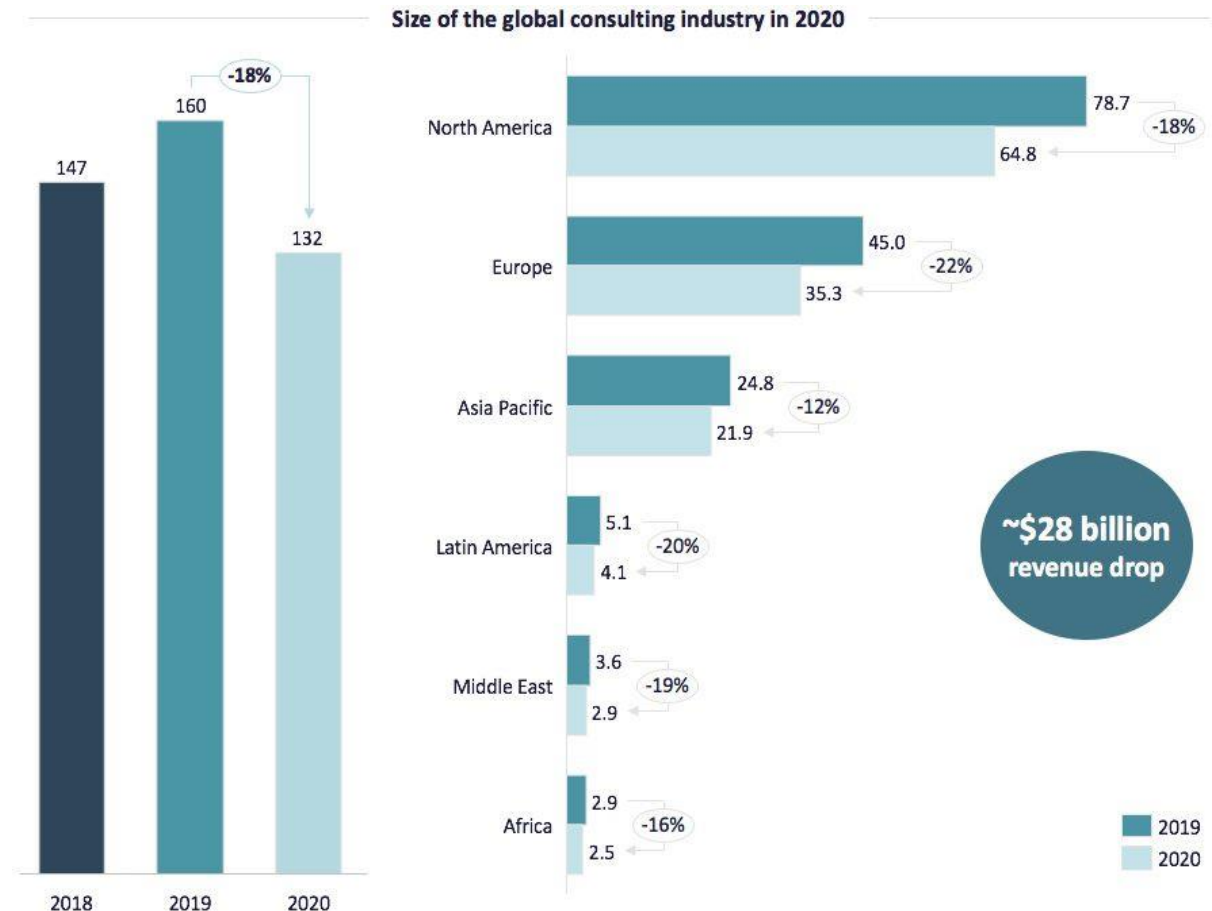


# Origins (cont.)

Consultancy Growth – Driven by radical and discontinuous change:

**Size of the management consulting market worldwide \$billions**

*‘The consulting industry stands to take a sizeable hit from the Covid-19 crisis’*



Source: Consultancy.org estimates, Source Global Research in April and May. All data in US\$ billion

<https://www.consultancy.uk/news/24659/market-size-of-the-global-consulting-industry-in-2020>

# Consulting Types

## Business Model

- Pure advice
- Hybrid – advice + implementation (PWC, Capgemini)
- Advisor - sells a report to recommend what work, e.g. Mckinsey
- Body shop – sells people to do the work, e.g. Accenture

## Sector

- Generalist: all niches/by sector, e.g. IBM/Accenture
- Niche – by business domain/by problem type eg Project Partners
- SMEs
- Public/private

## Service

- By size – large vs one person operations
- By business aspect (eg domain discipline eg IT architecture)
- By type of problem eg manufacturing, change
- By business sector (oil/gas, financial)

*For additional Information see Biggs pp45-59*



# Consulting Types (cont.)

## Consulting Service Types

Source: Michell V. - A Framework for Consulting Methodologies - IRC Discussion Paper Jan 2011

Service Type	Focus	Expertise	Advice Example	Company Examples
Strategic	Long terms senior management strategic planning	Advising senior management - mainly reports and recommendations	Shaping businesses, Takeovers, market planning, strategic business problems	McKinsey, BAIN, Booz Allen
Operational	General Management Problems	Advising middle management and implementing solutions	process change, sourcing, business development, operational business problems	Accenture, PWC, IBM
Niche	Specific business aspect	Management specialism	Audit, security, insolvency, HR, Marketing, Manufacturing	Nielsen, totalmarketingsolutions,
Niche	Technology	ICT, hardware etc	What and how to apply technology	Capgemini, Cognizant
Niche	Technology discipline	Science/engineering problem solving	Science/engineering problems eg design an x, assess biological impact of y	Cambridge consultants
Niche	Problem based	Problem solving methodologies	6 Sigma expertise, project management	Sigmapro, catalyst
Boutique	Highly specialised expertise	Energy conservation, retail, M&A, economics	Advice for leverage buyout of a company, assessment of energy efficiency for a supermarket	LEK (ex BAIN), BCG

# Consulting Types (cont.)

**Please watch and reflect on the following video**

**Management vs strategy consulting**

<https://www.youtube.com/watch?v=AcGRNCSEXqw>

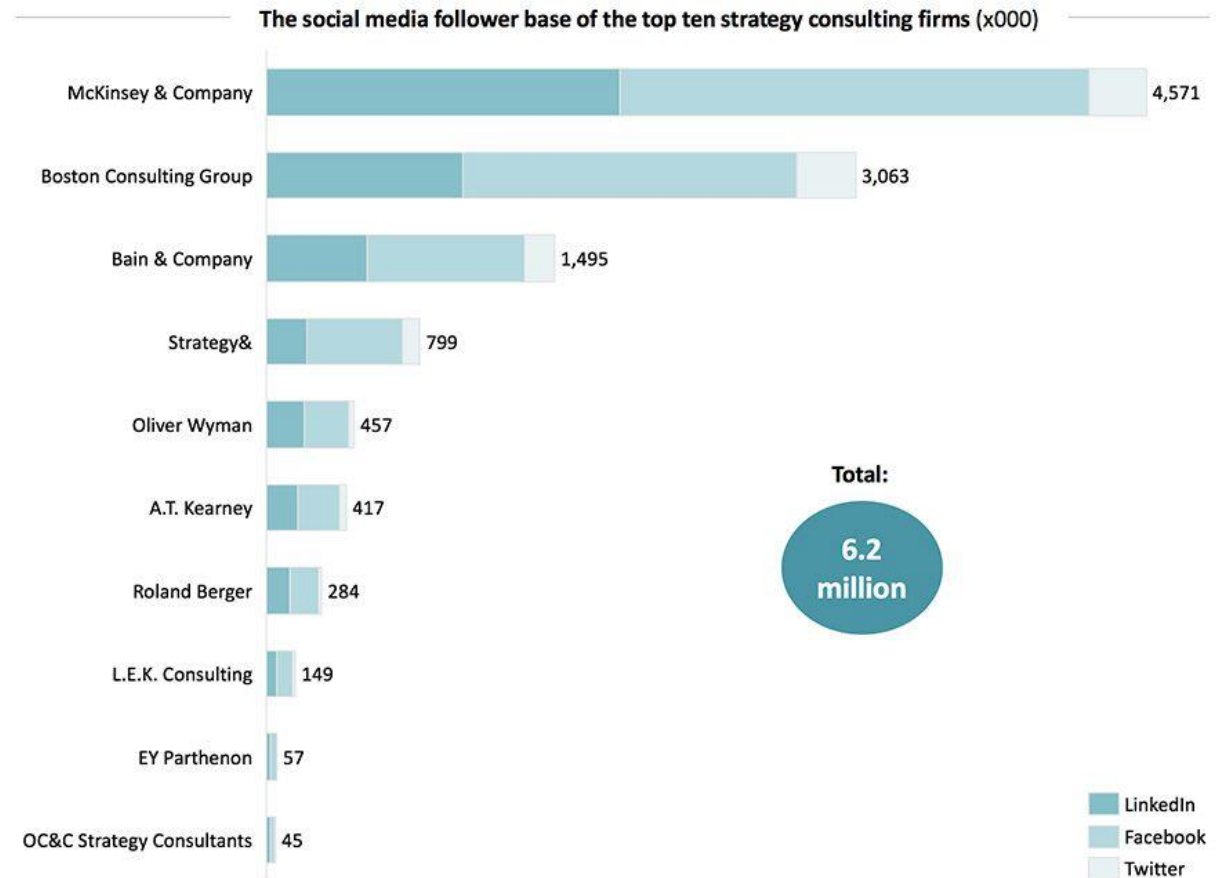
# Origins (cont.)

Consultancy Types

Strategy Consulting

Advice on the strategic direction, long term Plans & profitability of a business

## Top 10 Strategy Consulting Firms



Source: Consultancy.uk analysis

<https://merchant-ee.com/news/social-media-follower-base-top-ten-strategy-consulting-firms/>



# Origins (cont.)

## OPERATIONS CONSULTING

### Consultancy Types

Consulting advice and engagements for middle management support of value adding operational activities of a business

#### Operations consulting services



<https://www.consultancy.uk/consulting-industry/operations-consulting>

The market for operations management services is estimated to be worth around \$70 billion, accounting for just under 30% of the global consulting market

# Origins (cont.)

Consultancy Types

Technology Consulting

Ranges from designing  
Specific types of technology  
to running and advice on the  
Management of technical  
Processes and systems

## Technology Consulting



# Origins (cont.)

Consultancy Types

Technology Consulting

A mix of business/IT  
User Technology and  
Engineering technology

## Largest Technology Consulting Firms

- Accenture (IT, Operations, HRM)
- Cap Gemini (IT, Operations)
- CSC (IT, Operations)
- IBM BCS (IT)
- PWC (IT, Operations, HRM)
- KPMG / Bearing Point (IT, Operations)
- Deloitte (IT, Operations)
- **McKinsey & Co.** **(Strategy, Operations)**
- BAH (Strategy, Operations)
- **Mercer** **(Strategy, HRM)**
- Anderson (Operations)
- **A. T Kearney** **(Strategy, HRM)**
- **Monitor** **(Strategy)**
- **BCG** **(Strategy)**
- **A.D. Little** **(Strategy)**
- **Bain & Co.** **(Strategy)**

<http://itconsultinghigaeru.blogspot.com/2017/02/biggest-it-consulting-firms.html>

**accenture**  
High performance. Delivered.

**Capgemini**  
CONSULTING. TECHNOLOGY. OUTSOURCING.

**CSC**  
EXPERIENCE. RESULTS.

PRICEWATERHOUSECOOPERS

**McKinsey & Company**

**KPMG**

**ATKEARNEY**

THE BOSTON CONSULTING GROUP  
**Arthur D Little**  
Global Management Consulting

**BAIN & COMPANY**



# Exercise 1.1

Where business comes to life

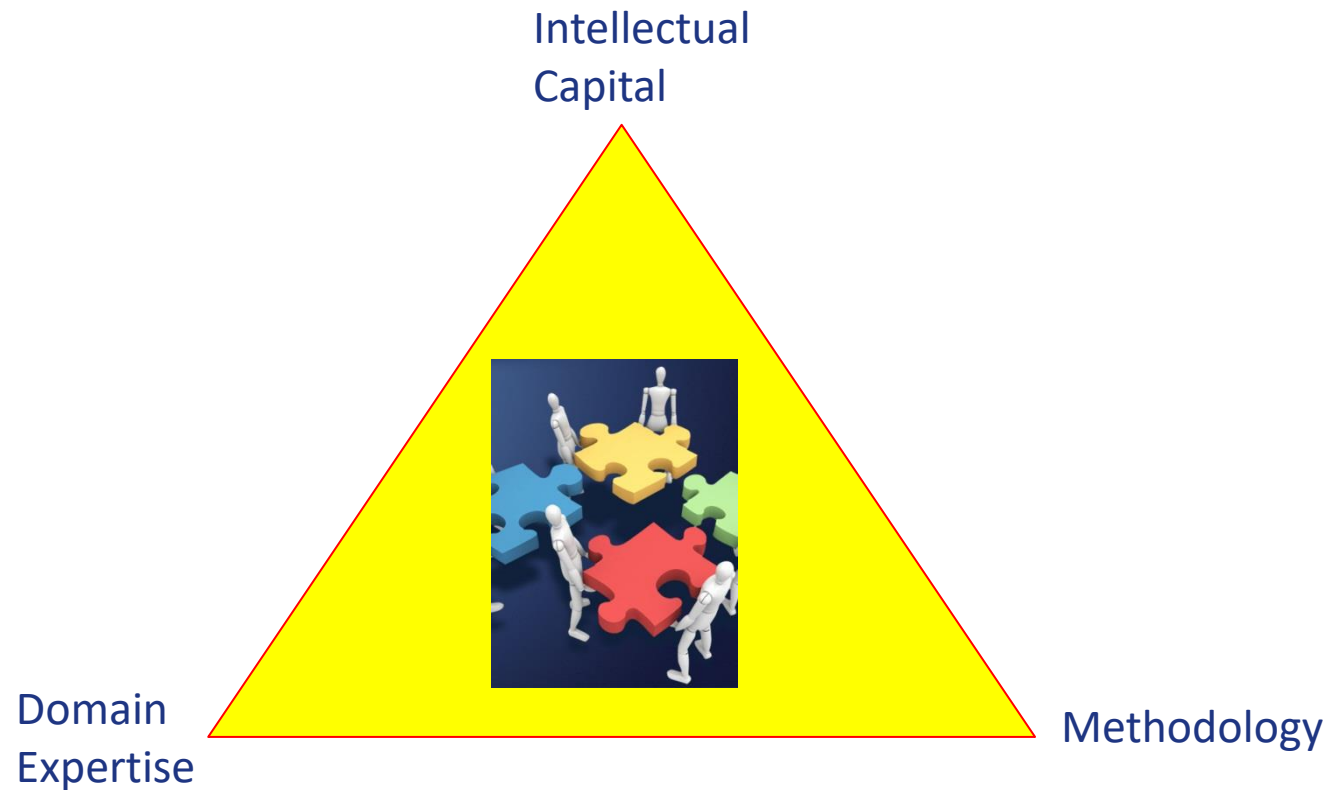
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# **Business Technology Consulting**

## **1.2 Key Consulting Characteristics**

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## 1.2 Key Consultancy Characteristics

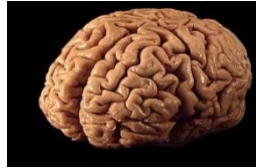




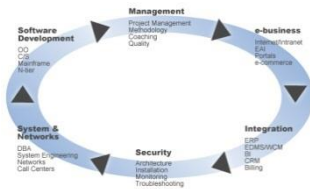
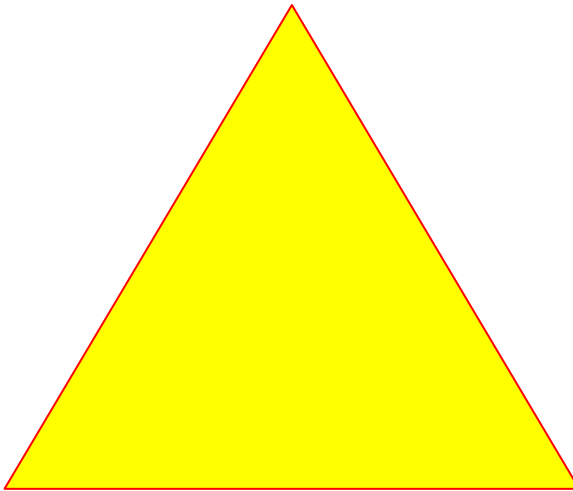
# Key Consultancy Characteristics (cont.)

## KNOWLEDGE MANAGEMENT

- thoughts and knowledge
- experience
- papers, publications
- documents



## Intellectual Capital



## Domain Expertise

- Expert knowledge eg technology
- Sector knowledge eg banking

## Methodology



## TOOLSETS

- Tools/methods/models
- Tacit experience
- Skills

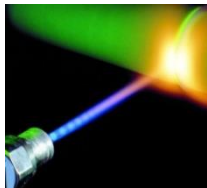
# What Do We Mean by Technology Consultancy?



ICT advise/use for business change

vs.

Pure technology consultancy (Hardware)  
eg engineering (the technique know how)



Intellectual Capital

Best practice techniques  
& skills

Vs.

Science/engineering  
Calculations, physical  
products

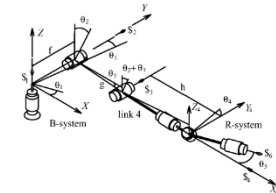


Figure 9. The Puma robot.

Domain  
Expertise

Methodology

Best practice models  
(Social science)

vs.

Science/engineering

# Advantages of Consultancy - Business View

- Independent viewpoint *-they must be right!*
  - free from politics, internal constraints and existing solutions
- Objectivity - clear focused analysis *- they will find an answer!*
  - Consultants may be used to provide objective evidence for decisions/ideas
- Innovation opportunity *– they can do it better!*
  - They should have state of the art knowledge/capabilities
- Provision of expertise the business lacks *- they will know what to do!*
  - They are very good at what they do/specialised
- Short term capacity benefit *- they can help us manage*
  - Their skills can be used when required/need for expertise



# Advantages of Consultancy - Business View (cont.)

## Consultants can:

- Encourage management learning
- Avoid defensiveness/denial
- Provide someone to blame!

## Objectives for Consulting Intervention

- Provide valid and useful information that may not be available internally
- Provide free choice – client can choose to accept advice or not
- Ensure internal commitment (i.e. need to internalise and take on board the advice)

## Tilles 1961 – 3 principle consulting roles:

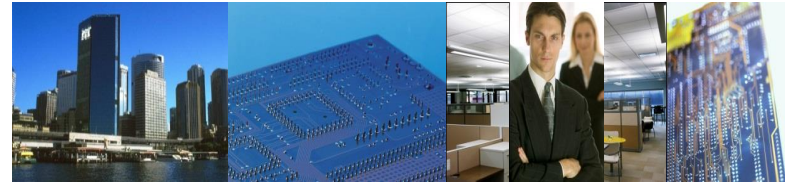
- Seller of services
- Supplier of information
- Business doctor – dispensing 'cures'

## Mouton 1983 – Intervention Modes:

- Provide clients with information on relevant theories
- Prescribing what they should do
- Challenging ways that clients think

# Consultancy Issues

- Are consultants really objective?
  - Reliance on latest fads
  - Copy and paste from previous client
  - Learn from you and sell their knowledge back
- Consultants can be costly!
- They can be a distraction and threat to own employees (earning more/less responsible)
- They use the opportunity to learn from you
- Is there a positive cost/benefit? - takes time, will they be around when you find it?
- Will they stay to implement their ideas? – have they ever done it?



# Consulting Roles

## Consulting Roles

### Interacting with the Client

#### Supplementing

– consultant is an additional resource taking on an existing company role

#### Complementing

– consultant fills a gap in a new role in the organisation

- As a disturbance handler – to help resolve a business crisis
- As an entrepreneur – to explore a range of possibilities
- As a resource allocator – eg organising the client business
- As a negotiator – eg to negotiate a contract on behalf of the business

**Differentiating** – consultant facilitates the process of differentiating roles as business grows

#### Integrating

- consultant helps to integrate new changes into the business

#### Enhancing

-consultants help to make the business management more effective

#### Innovating

- consultant helps develop new business capability eg via technology

# Consulting Roles (cont.)

## Three Key Advisory Roles:

## Based on Mintzberg Managerial Roles



### Informational Roles

- The monitor
- The disseminator
- The spokesperson

### Inter-personal Roles

- The figurehead
- The leader
- The liaison



### Decision Roles

- The entrepreneur
- The disturbance handler
- The resource allocator
- The negotiator

Source: Wickham P.A. Management Consulting - Delivering an Effective Project Prentice Hall 2004



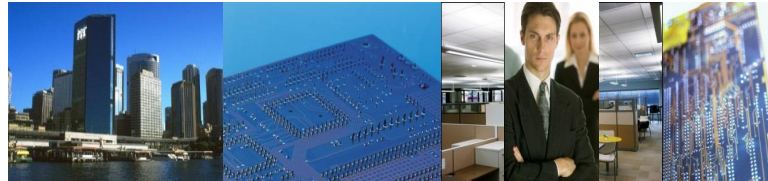
# Advantages of Consultancy - Business View (cont.)

## What consultants do

**Please watch and reflect on the video of one experience:**

What DO management consultants do | Daily task breakdown!

<https://www.youtube.com/watch?v=faOoGU18Z4I>



# Exercise 1.2

Where business comes to life

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# **Business Technology Consulting**

## **1.3 Consulting Principles**

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# 1.3 Consulting Principles



What value is added by a consultant?

## Provision of **Information**

- Awareness, selection and application of resources: human and technology

## Provision of **Specialist Expertise**

- Industry sector expertise
- Technology expertise
- A new range of technology options as a business evolves/technology evolves

## **Management Support** for Internal Arguments - An external expert/consultant can

- help make the right decision/back up politics
- be used to make difficult and unpopular decisions

## **Facilitating Change**

- Reducing resistance to change/smoothing change
- Providing scarce/additional resources
- Doing the analytical work the business has no time for

Source: Wickham P.A. Management Consulting - Delivering an Effective Project Prentice Hall 2004



# Consulting Skills



- Analytical Skills - how & what to analyse
- Technical Skills - know how/why for specific technology
- Project skills - know what/when
- Relationship building Skills- know who - emotional intelligence



# Analytical Skills

- Establish a relevant context
- Identify what information in the context is needed
- Process information and identify important relationships within it
- Draw meaning from information and use it for decision making
- Recognise strengths, weaknesses and capabilities
- Assess the business' financial and market situation
- Identify problem sources and drivers
- Understand cause and effect



<https://www.tomdavenport.com/wp-content/uploads/2019/02/revolution-in-analytical-technology.jpg>

# Technical Skills



<https://insight.ieeeusa.org/wp-content/uploads/sites/3/2016/12/Why-Technical-Skills-Get-You-in-the-Door-But-Soft-Skills-Advance-Your-Career-1200x700.jpg>

- Understand specific technology
- Know ‘what’ technology should be employed in the business context
- Know ‘how” the technology enables the business
- Assess the technological situation that supports business value
- Identify what technology is needed to grow value and the business
- Ensure technology is feasible and appropriate for the client
- Explain the technology and its use/benefits
- Adapt and potentially implement the technology in context

# Project Management Skills

- Define objectives and outcomes - realistic/achievable
- Develop formal plans - internal/external roadmap
- Sequence and prioritise tasks
- Manage project financial and information resources
- Recognise and utilise human expertise
- Add and supplement expertise



<https://www.raconteur.net/wp-content/uploads/2014/09/Project-management-skills-managing-a-team-360x203.jpg>

Source: adapted from -Wickham P.A. Management Consulting -  
Delivering an Effective Project Prentice Hall 2004



# Relationship Building Skills



<https://i.ytimg.com/vi/3okV4PmxjUU/maxresdefault.jpg>

- Build rapport & trust with the client
- Question the client effectively
- Negotiate objectives & outcomes
- Convince through verbal, written and visual mediums
- Use information to make a case for a particular course of action
- Develop selling strategies
- Work effectively as a member of a team
- Demonstrate leadership

***...Consulting involves critically interacting with the client***

***...Consulting as a critical and trusted advisor***

***...Consulting involves knowing when and how to charge!***

***...Consulting is a relationship business!***

# Obtaining & Managing Expertise

## Consulting – As a Learning Organisation

A consultancy core competence is its expert knowledge and intellectual property

Knowledge is a fluid mix of framed experiences, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information [Davenport & Prusack (1997)]

## Intellectual property

Distinct creations from the mind for which a set of exclusive rights are recognised

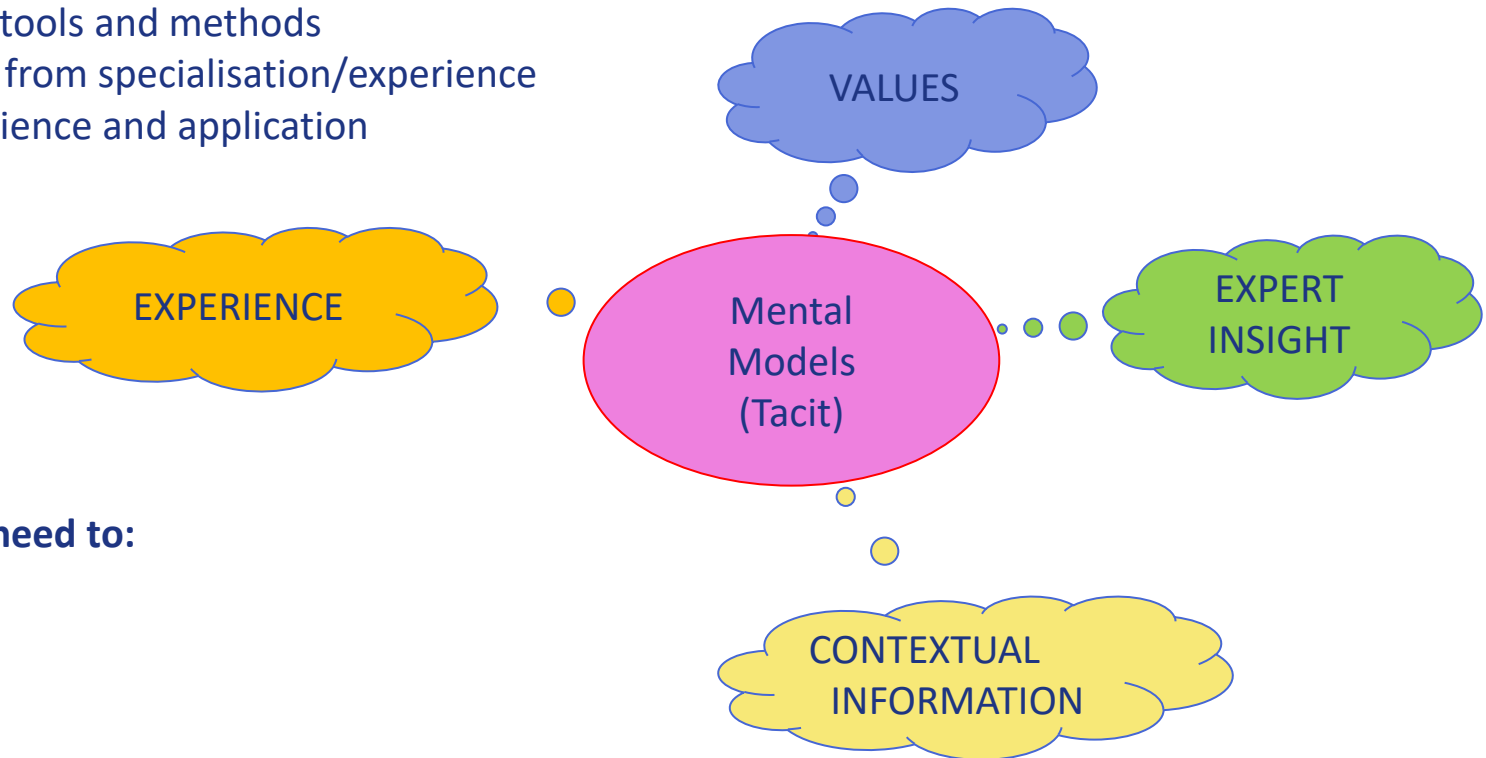
In law [http://en.wikipedia.org/wiki/Intellectual\_property]

E.g. copyright, trademarks, patents, design rights, trade secrets

# Obtaining & Managing Expertise (cont.)

Consultants have a wealth of experience and must to learn from their

- Clients
- Engagements
- Application of tools and methods
- Expert insight from specialisation/experience
- Context experience and application



**Consultants need to:**

- Share
  - Codify
  - Develop
  - Manage
- ..these mental models

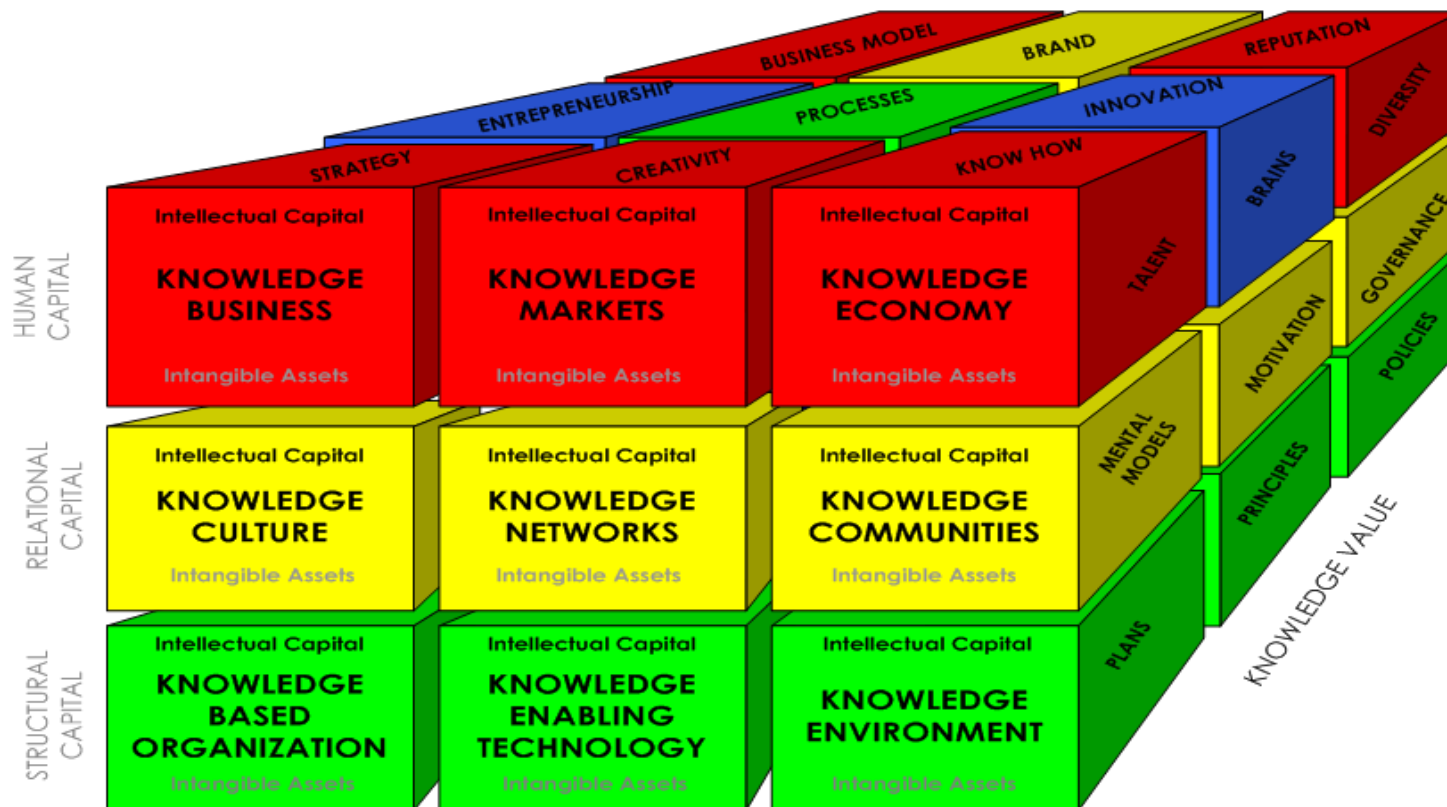
# Capturing & Managing Knowledge

Example of the range of knowledge that exists in a business



[https://www.dictionary.com/e/wp-content/uploads/2020/01/WisdomvsKnowledge\\_1000x700\\_jpg\\_OHVUvmTo.jpg](https://www.dictionary.com/e/wp-content/uploads/2020/01/WisdomvsKnowledge_1000x700_jpg_OHVUvmTo.jpg)

## THE KNOWLEDGE CUBE FRAMEWORK



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Created by Bryan Davis Jan 4, 2007 in cooperation with Nick Trenov...

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# Capturing & Managing Knowledge



[https://www.dictionary.com/e/wp-content/uploads/2020/01/WisdomvsKnowledge\\_1000x700.jpg\\_OHVUvmTo.jpg](https://www.dictionary.com/e/wp-content/uploads/2020/01/WisdomvsKnowledge_1000x700.jpg_OHVUvmTo.jpg)

Consultants operate in knowledge Intensive businesses – they need to learn fast and develop new knowledge as a ‘learning organisation’

## Learning Organisation Tasks

- Provide continuous learning opportunities.
- Use learning to reach their goals.
- Link individual performance with organisational performance.
- Foster inquiry and continuous dialogue, making it safe for people to share openly and take risks.
- Embrace creative tension as a source of energy and renewal.
- Be continuously aware of and interact with their environment.

Source: Kerka (1995)

***...learning organisations harness individuals and promote learning for the good of the individual and the organisation***

# Types of Company Knowledge Repository



[https://www.dictionary.com/e/wp-content/uploads/2020/01/WisdomvsKnowledge\\_1000x700.jpg\\_OHVUvmTo.jpg](https://www.dictionary.com/e/wp-content/uploads/2020/01/WisdomvsKnowledge_1000x700.jpg_OHVUvmTo.jpg)

## 1. External

- competitive intelligence
- the internet (websites)/intranet
- social networks (facebook, twitter, linked in)

## 2. Structured Internal

- reports
- Procedures
- documents
- email messages

## 3. Informal internal knowledge

- lessons learned
- process workarounds
- meeting notes
- discussions

Source: Davenport et al cited in CO21 Dongosoyr 200 3 An Empirical Study of an Informal Knowledge Repository in a Medium-Sized Software Consulting Company

# Consulting Knowledge Typology



[https://www.dictionary.com/e/wp-content/uploads/2020/01/WisdomvsKnowledge\\_1000x700.jpg\\_OHVUvmTo.jpg](https://www.dictionary.com/e/wp-content/uploads/2020/01/WisdomvsKnowledge_1000x700.jpg_OHVUvmTo.jpg)

Where does a consultant's knowledge reside ?

Explicit Knowledge	<i>Eg Individual checklists</i>	<i>Eg shared consulting methods</i>
Tacit Knowledge	<i>Appropriation of individual experience &amp; beliefs</i>	<i>Shared norms, beliefs, values</i>
	Individual	organisational

knowledge

# Exercise 1.3



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# **Business Technology Consulting**

## **1.4 Consulting Behaviour**

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# 1.4 Consulting Behaviour

- Managing Consulting Responsibilities
- Professionalism
- Ethics



# Consultant Responsibilities

## Legal

- Must ensure individual activities and those on behalf of the firm are legal
- In new technical areas this may require specialist legal advice

## Moral

- Must meet the society/countries moral norms and obligations
- Responsibility to be fair and do the right thing beyond contract obligations
- Should act ethically

## Economic

- Must act in the long term interests of the business
- Advocate projects that meet the business needs
- Notify the business in cases where this is not likely to occur

## Discretionary

- May refuse to work in certain project areas/situations
- May be affected by personal values/religion etc.

Source: Wickham P.A. Management Consulting - Delivering an Effective Project Prentice Hall 2004

# Professionalism

Broad range IT to organisational behaviour 'practitioners'

International Council of Management Consulting Institutes (ICMCI 1999)

There is a need for a:

- Registered body – to certify you are who you are
- Code of contact and management/discipline
- Community of practice
- Provision of quality training
- Support of consultant interests (professional, legal etc)

Example Consulting Institutions

<http://www.mca.org.uk/>

Our sixty member companies comprise around 70% of the UK industry's total annual revenue of £9 billion, employ around 40,000 consultants and work with over 90 of the FTSE 100 companies and almost all parts of the public sector.

<http://www.iconsulting.org.uk/>

# Consulting Ethics – Fraud & Corruption

## Consultants should avoid:

- Bribing client staff for benefit (even if it is accepted client culture)
- Colluding with client staff to obtain better terms of reference/unfair advantage
- Exert undue influence on client selection teams
- Adopting unfair methods/techniques that favour the consultant
- Overcharging the client/Billing for work not executed
- Unauthorised use of client property (eg removal/personal use)
- Provide less service than contracted for
- Alter accounting, project or other records in their favour
- Provide false statements or knowingly support false statements
- Forge or unlawfully alter documents
- Remove, copy or disseminate client documents
- Flagrantly disregard NDA/IPR arrangements
- Misrepresent facts
- Seek unjustified increases or changes in conditions

# Exercise 1.4



# APPENDIX 1

## INMR86 Business Technology Consulting Overview vs. Module Units



### Aims:

This module aims to allow students to be able to identify current and future issues affecting the client organizations, use the key knowledge areas for business technology consulting such as service oriented architecture, business architecture, information technology architecture, and formulate a most effective strategy to communicate to the board members to push the proposed strategies for business technology.

### Outline content:

The key content covered in this module includes:

- ☐ Business technology consulting concepts and principles based on the theory on organisations and Information Systems; (units 1, 2)
- ☐ Business analysis methods for representing business context, business activities and IT activities, alignment of business performance and IT enabling; (units 3,4))
- ☐ Business consulting methods for analysing the business capabilities, stakeholders' influences, and predicted achievements; (units 3, 4)
- ☐ Business consulting methods for formulating business technology strategies for achieving the business objectives; (units 5, 6, 7)
- ☐ Valuation methods for evaluating tangible and intangible benefits if the recommended business technology strategy is implemented. (units 5, 6, 7)

### Assessable outcomes

On the completion of the course, the students will be able to:

- ☐ Construct highly persuasive arguments that resonate with boardroom-level stakeholders;
- ☐ Establish a holistic view of an organisation, in particular IT systems creating business value and/or preventing business sustainability;
- ☐ Apply the consulting methodology (using quantitative and qualitative methods) to conduct an analysis of the business strategy, performance, constraints, and benefit to and impact on the stakeholders;
- ☐ Produce a set of requirements which assist decision makers to formulate business technology (i.e. IT systems) strategies for the business sustainability;
- ☐ Evaluate the consulting results and use the feedback to maintain on-going and long-term improvements.