

INFORMATION SYSTEMS

WHAT IS A BUSINESS?

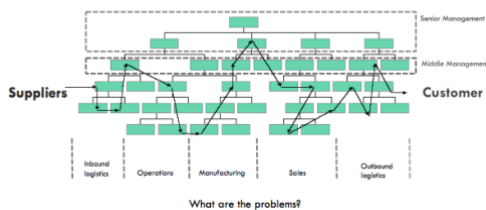
WHAT IS THE PURPOSE OF A BUSINESS?

- Production of products and services
- Division of labour, dealing with complexity
- Collaboration of individuals to achieve greater goal
- Governance and control
- Efficient allocation of resources
- Effectiveness- value/quality
- Efficiency- cost
- Make a profit
- Manufacturing
 - Original Equipment Manufacturers
 - Brand holders- Toyota, Apple, Lenovo, Siemens
 - Suppliers/license producers: parts, components
 - Raw materials: steel, coal, rubber
- Service
 - Professional services
 - Architects, financial planning, accounting, solicitors, etc
 - Travel, leisure, hospitality
 - Technology: IT services, engineering
 - Education: TAFE, Universities, etc.

HOW IS A BUSINESS ORGANISED?

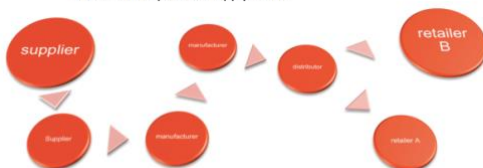
- Functional organisation
 - Vertical and horizontal distribution of tasks
 - Horizontal
 - Dividing an organisation into different departments
 - Functional specialisation
 - Vertical
 - Dividing an organisation into different hierarchical levels
 - Chain of command
- Process organisation
 - Organise materials/value flow through the organisation
 - Fulfil orders, get things done (operations)

PROCESS SLALOM THROUGH THE FUNCTIONAL AREAS



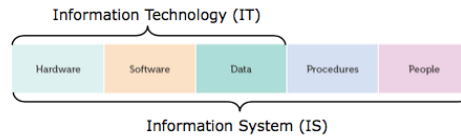
WHERE DOES A BUSINESS OPERATE?

In a market: as part of a supply chain:



WHAT IS AN INFORMATION SYSTEM?

- Components
 1. Computer Hardware
 2. Software
 3. Data
 4. Procedures
 5. People



HOW DOES IT DIFFER FROM IS?

- IT includes raw tech
 - Hardware
 - Software
 - Data components
- IT alone won't help an organisation achieve goals until it's embedded in an IS
- $IS = IT + People + Procedures$

WHAT IS BIS, MIS, IT, IS ANYWAY?

- MIS
 - Management information systems
- BIS
 - Business information systems
- MIS = BIS
 - Refers to academic discipline that looks at development
- Elements BIS
 - Business goals and objectives
 - Information Systems
 - Information
 - Business Processes
 - Development and use
 - Chance, innovation and transformation

DEVELOPMENT & USE OF INFORMATION SYSTEM

- Business professional needs to
 - Take active role to meet needs
 - Understand IS and operation
 - Understand impact of IS
 - Read/speak language of IS
 - Consider users' needs
 - Learn how IT systems developed

HOW DO SUCCESSFUL BUSINESS PROFESSIONALS USE IS

- Email, websites and instant messaging don't provide competitive advantage
- Companies need IS that support business
- Developing right IS requires input from those with knowledge of the business
- Think creatively about problems, challenges and opportunities
- Create innovative applications using new tech
- Find ways to gain competitive advantage

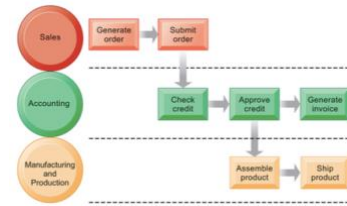
WHAT A BUSINESS IS AND HOW IT IS AFFECTED BY BIS?

- Purpose
 - Profit
- Organisation
 - Functional
 - Horizontal
 - Vertical
 - Process
 - Organisation materials/value flow
- Where
 - Supply chain
- INFS
 - Solve business problems with technology

BUSINESS PROCESSES

HOW DID THIS STUFF GET HERE?

- Various parts of a business must work together as an integrated system
 - Flows of info and documents
 - Purchase orders
 - Flows of materials and products
 - Within and across businesses
 - Flows of money
 - Payments
- Business processes need to be specified, executed and managed
- Often cross-functional



WHAT IS A BUSINESS PROCESS?

- Structured network of activities supported by resources, facilities and information that interact to achieve some business function
- Turn input into higher value output
- Sometimes referred to as business systems

BUSINESS PROCESS IN INDUSTRY

- Graphics on screen
 - Multiple suppliers, G-Creative, Atomic Fiction, etc
- Sequence of events
 - What, where and when
- Consistent
 - Works inside the story and inside culture of 13 films and multiple series

CHARACTERISTICS OF WELL-DESIGNED BUSINESS PROCESSES

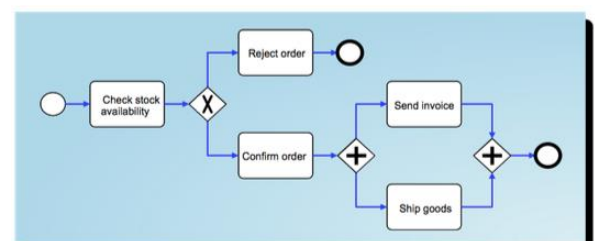
- Complete
 - Include all activities necessary to achieve the business goal
- Minimal
 - Don't include unnecessary activities- cost efficiency
- Well-structured
 - Activities organised in logical sequence
- Embedded
 - Logically connect with other BPs in organisation
- Outcomes of well-designed BP
 - Increased effectiveness for customer
 - Increased efficiency reducing cost for business

LEVELS OF ABSTRACTION

- BPs exist on many different levels of a business
- Highest level- core value creation depicted as one high-level BP
 - Source - produce - sell - ship - provide service
- BP can be broken-down to smaller sub processes until describing granular activities on work level
 - Receive document - specify quantity - update document - send document to manager for approval - etc

WHAT ARE THE COMPONENTS OF A BUSINESS PROCESS?

- Activities
 - Transform resources and info of one type into another type
- Decisions
 - Question that can be answered 'Yes' or 'No'
- Roles
 - Look after sets of procedures
- Resources
 - People, facilities or computer programs that are assigned to roles
- Repositories
 - Collection of business records (databases)
- Data/info flow
 - Movement of a data item from one activity to another activity or to repository/database



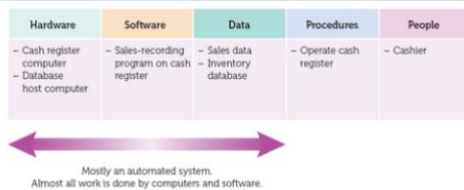
BUSINESS INFRASTRUCTURE

- Repetitive use of IS gets standardised over time and becomes part of the infrastructure
- BP & IS are both part of the infrastructure and hence 2 sides of the same coin
- Infrastructure drives efficiency

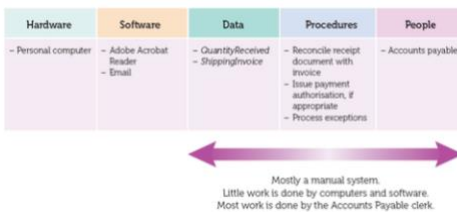
HOW DO IS SUPPORT BP?

1. IS supports activities in a BP
 - Several activities may use 1 IS
 - Activity may have its own IT system
 - Activity may use several IT systems
2. New business processes may require design of new IT system
3. New IS facilitate new activities and lead to changes in existing BP
 - From 'As is' process to 'To Be' process
4. Some processes are automated while others are manual

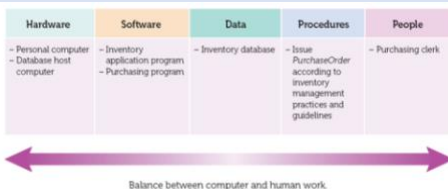
IS TO SUPPORT COUNTER SALES



IS TO SUPPORT PAYMENT



IS TO SUPPORT PURCHASING



BENEFITS OF IT USE IN BPS

- More accurate info
 - BPs draw on databases- ensure accurate info across many activities and BPs
- More automated
 - Some activities were manual before automated
 - E.g. automated customer credit check through specialized Computer System
- More streamlined - faster
 - E.g. Enterprise applications can facilitate quick hand-over of activities between workplaces
- More efficient - less cost
 - All of the above together can lead to significantly reduced cost