

W1 Introduction

Why should accountants study information system?

With the other people on your table discuss the article *Muldowney, S. 2018 "Should young accountants have to do basic accounting work"* (Link available on Canvas and in the references this week).

Answer the following questions:

1. What roles do accountants currently play?

Tax-related job, auditing and other transactional routine accounting tasks such as maintaining accounting records

2. What systems do accountants currently design, use or control?

Accountants currently do and use system such as ERP, SAP, MYOB, etc

3. What future systems might accountants design, use and control?

- A portion of routine accounting tasks will be replaced by machines in the near future; Big Four have substantial initiatives underway in this area where many audit and tax tasks are being automated.
- Relatively routine tasks will be taken over by the machine such as extracting key provisions from contracts, performing inventory counts, retrieving information from multiple information systems.
- Future system may include **AI, Blockchain** (which will undertake all the debit and credit work in the near future) – can be an interview Q
- The role of accountant will be more fine-tuned towards stakeholder engagement and analysis.
- A deep understanding of debits and credits will be less important and an understanding of IT controls and access controls much more critical. (more IT focused)

Accounting information system

- What does an accounting information system do?
- Other systems that it interacts with
- How many systems do you think a large organisation would have?
- What sorts of interactions will there be between systems within an organisation and the systems of other organisations with which it interacts?

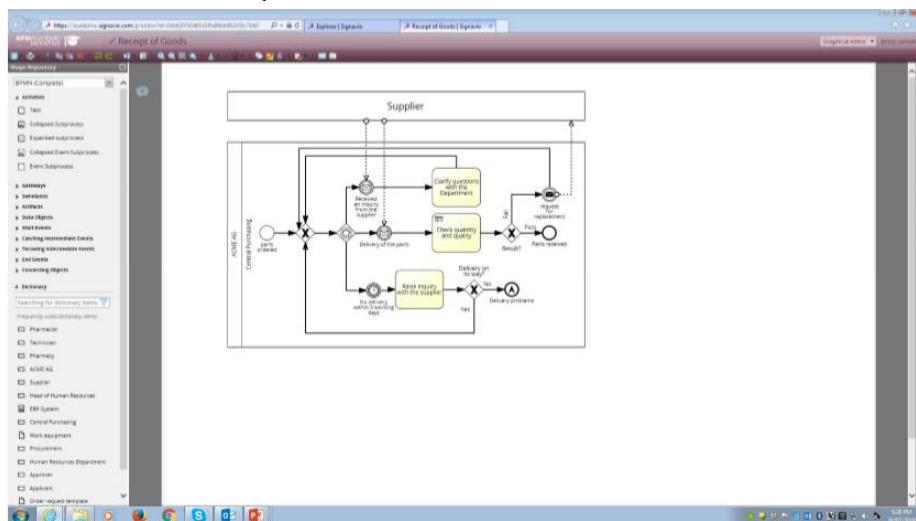
Introduction to course topics

Week 2 Business Process Modelling

The process will be from an example case study (Global Bikes) which we will continue to use in subsequent weeks.

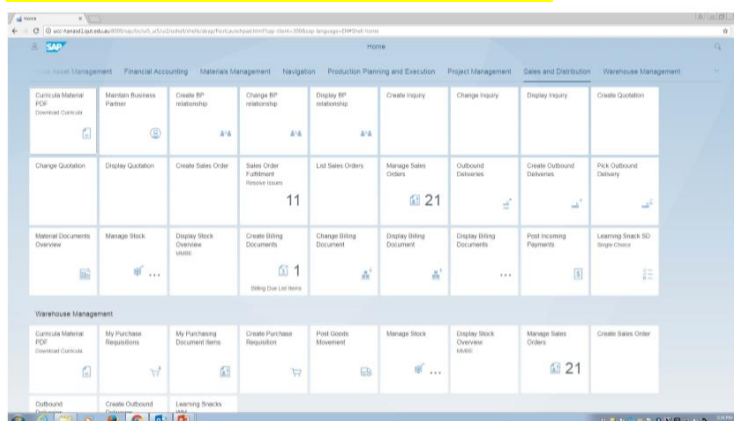
Week 3 Business Process Modelling tools

- Business Process Management tools provide an integrated view of bus processes
- We will use Signavio to create a typical BPMN, build a core business process, and consider controls in place



Week 4 Enterprise Systems (ES) – SAP

- We will then implement the bus process we modelled (BPMN) in an Enterprise System (SAP) and discuss controls in place



- And look at the important concepts of master data and event data
 - Master data

DELUXE TOURING BIKE (BLACK)	EN	DXTR1000	AIR PUMP	EN	PUMP1000
DELUXE TOURING BIKE (RED)	EN	DXTR3000	ELBOW PADS	EN	EPAD1000
DELUXE TOURING BIKE (SILVER)	EN	DXTR2000	FIRST AID KIT	EN	FAID1000
MEN'S OFF ROAD BIKE	EN	ORMN1000	KNEE PADS	EN	KPAD1000
PROFESSIONAL TOURING BIKE (BLACK)	EN	PRTR1000	OFF ROAD HELMET	EN	OHMT1000
PROFESSIONAL TOURING BIKE (RED)	EN	PRTR3000	REPAIR KIT	EN	RKIT1000
PROFESSIONAL TOURING BIKE (SILVER)	EN	PRTR2000	ROAD HELMET	EN	RHMT1000
WOMEN'S OFF ROAD BIKE	EN	ORWN1000	T-SHIRT	EN	SHRT1000
			WATER BOTTLE	EN	BOTL1000
			WATER BOTTLE CAGE	EN	CAGE1000

10014	NEW YORK CITY	BIG APPLE BIKES	2000	US00	04227	LEIPZIG	DRAHTESEL	18000	DE00
18033	BOSTON	BEANTOWN BIKES	5000	US00	16341	BERLIN	CAPITAL BIKES	16000	DE00
19073	PHILADELPHIA	PHILLY BIKES	3000	US00	17389	ANKLAM	OSTSEERAD	21000	DE00
20004	WASHINGTON DC	DC BIKES	11000	US00	22760	HAMBURG	ALSTER CYCLING	14000	DE00
30319	ATLANTA	PEACHTREE BIKES	4000	US00	22767	HAMBURG	RED LIGHT BIKES	23000	DE00
32804	ORLANDO	THE BIKE ZONE	25011	US00	30627	HANNOVER	CRUISER BIKES	17000	DE00
48076	DETROIT	MOTOWN BIKES	8000	US00	39130	MAGDEBURG	VELODOM	24000	DE00
49504	GRAND RAPIDS	FURNITURE CITY BIKES	7000	US00	44784	BOCHUM	FAHRPOTT	19000	DE00
60515	CHICAGO	WINDY CITY BIKES	6000	US00	60549	FRANKFURT	AIRPORT BIKES	13000	DE00
80111	DENVER	ROCKY MOUNTAIN BIKES	1000	US00	69115	HEIDELBERG	NECKARAD	20000	DE00
92612	IRVINE	SOCAL BIKES	9000	US00	70825	STUTTGART	RÄDELELAND	22000	DE00
94304	PALO ALTO	SILICON VALLEY BIKES	10000	US00	92275	MÜNCHEN	BAVARIA BIKES	15000	DE00
98004	SEATTLE	NORTHWEST BIKES	12000	US00					

- Event data: Data needed for auditing, need to know how it is related to master data
 - Sales inquiry
 - Quotation – copied from sales inquiry
 - Sales order – created with reference to quotation
 - Delivery document – created from the sales order
 - Goods Issue document (same ref number as delivery)
 - Invoice (Billing documents) – created from sales order
 - Payment – by clearing an open item

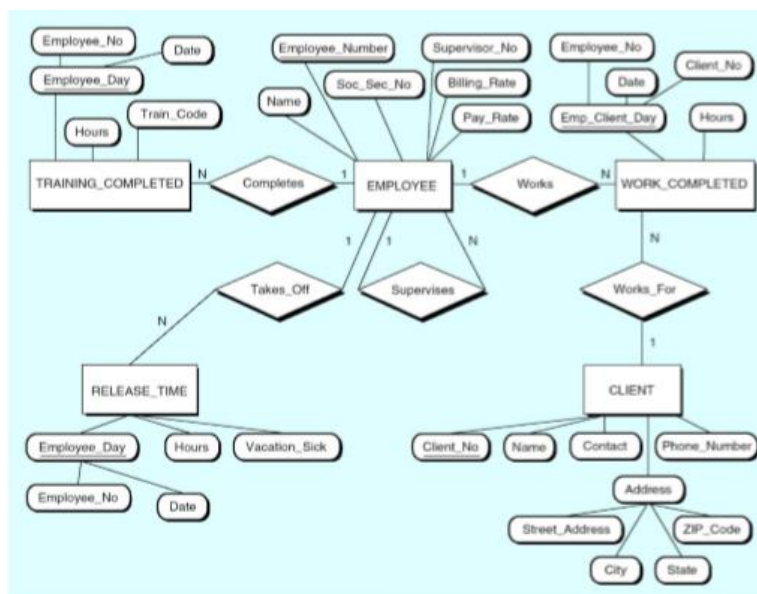
Week 5 The General Ledger and Financial Reports, Blockchain

- Those processes we study feed into the financial statements
→ Feeder process (abstract view)
- The Enterprise System has a general ledger and chart of accounts which is updated by these processes
- Hence, the financial reports can be automatically generated from Enterprise System
- But how will the notion of blockchain disrupt the concept of the General Ledger and how will this impact financial reporting?
- i.e. Suppose, instead of companies having their own general ledger, financial information is kept via public, distributed ledger. What would this mean for financial reports?
- Blockchain

Week 6,7 Management accounting in Enterprise Systems & Management reporting and Big Data

- Management accounting concepts (e.g. cost centres) are defined in the main ES. They add to the master data we defined earlier

- When an org has many systems, the master data often does not align and that is where master data management comes in
- It needs to be part of our extract transfer load process into data warehouses, reporting
- <https://www.ibmbigdatahub.com/blog/ensuring-data-warehouse-quality-business-mandate>
- ..and big data <https://www.ibmbigdatahub.com/infographic/four-vs-big-data>
- Although it is a big data, if it does not come from the sources you trust, then it's meaningless
- As part of assuring systems, we need to understand database structures

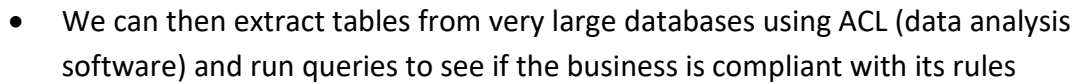


Week 8 Data visualisation

- Critical to the effective use of the data is visualisation
- Data visualisation: telling story with a data
- This may include interactive maps and tables and often put together in dashboards

Week 9 & 10 Testing a specific process – an introduction to database structures & Testing a specific process in an ES

- As part of assuring systems, we need to understand database structures



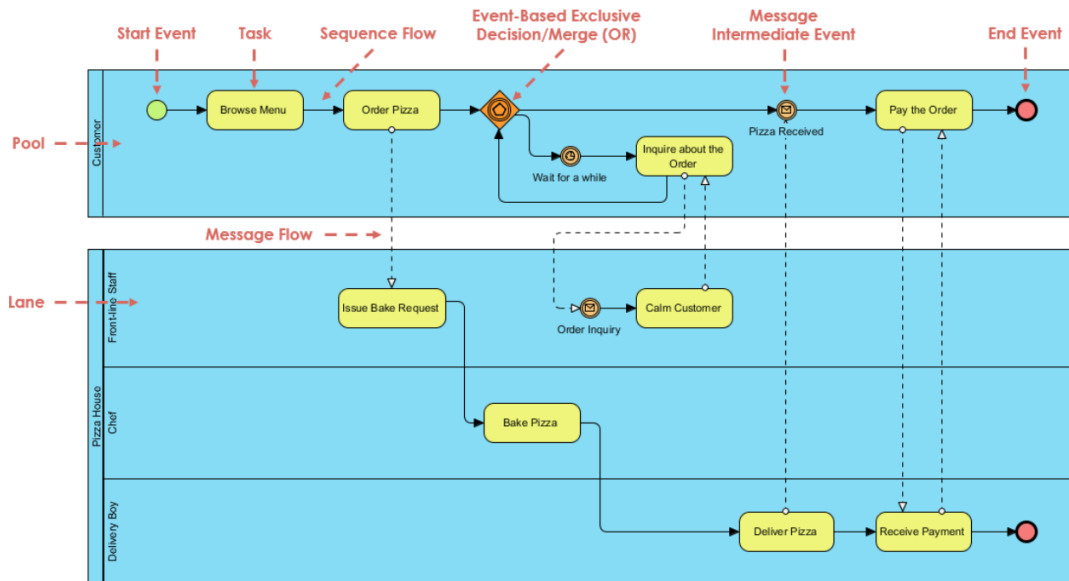
W2 Supporting Financial Accounting: Business Process Modelling (BPM)

1. Introduction to business processes
2. Introduction to business process risks
3. Introduction to application controls
4. Business process modelling notations
5. Case study exercises

- Collection of related events, activities and decisions, that involve a number of actors and resources, and that collectively lead to an outcome that is of value to an organisation or its customers
- Core business processes
 - Order-to-cash (sales cycle)
 - Procure-to-pay (purchase cycle)
 - Payroll (payroll cycle)

Work towards the designing process of ordering a pizza

- Main steps involved



- Value to the customer and the org
- Why you, as an accountant, should be involved in the design of this process
- Identify 2 risks to the organisation that might arise from the pizza “order to cash” system
 - (google) order to cash (O2C/OTC): set of business processes for receiving and processing customer sales orders for goods and service and their payment
- Identify the main data that the org will need to keep
 - Customer info?
 - Sales and purchases information
- Which of the risks you have identified will affect data?

Risk and Controls

- **Risk:** possibility that an event will occur and negatively impact the entity’s ability to achieve its stated objectives
- Risk assessment: process of assessing the **extent** to which events would impact the entity’s ability to achieve its objective
- 2 aspects to risk assessment:
 1. Impact: effect that an event will have on the entity’s ability to achieve its objective if the event occurs
 2. Likelihood: possibility or probability that a potential event will occur
- Application controls: controls relating to the scope of individual business process or application systems e.g. separation of business functions and error reporting
- **Objective of application controls** is to ensure that:
 - Input data is accurate, complete, authorised and correct
 - Data is processed as intended in an acceptable time period