



## 1. Table of Contents

1	OVERVIEW .....	3
2	IMPORTANT NOTE ON FILE-SHARING WEBSITES – PLEASE READ .....	3
3	KEY DATES .....	4
4	CASE SCENARIO .....	4
5	TASKS .....	8
6	SUBMISSION GUIDELINES .....	8
7	HOW TO INSERT YOUR MODEL INTO YOUR WORD DOCUMENT .....	9
8	ASSESSMENT CRITERIA, GRADING AND FEEDBACK .....	9
9	RULES .....	10
9.1	PROPER ACADEMIC CONDUCT .....	10
9.2	TIMELY ASSIGNMENT SUBMISSION .....	10



## 1 Overview

The purpose of the Case Study is to develop and evaluate relevant representations of complex business processes - of a real-world case study - in a consistent and unambiguous way. You will synthesize the principles of organisational strategy and process design and recognize the interdependencies of business processes within and across organizational boundaries to make them achieve high performing business processes in a business environment.

The Case Study involves the analysis of Apec Electronics where you will document and analyse the performance of the existing process: from process identification to process redesign. Based on your analysis, you will identify inefficiencies in this business process and formulate improvements to the process; you will create an implementation strategy and plan for the organisation.

This Case Study (individual assignment + team assignment) addresses all the Learning Outcomes of the course. By completing each requirement of this assignment, you will demonstrate your mastery of the principles and practice of Business Process Management.

- CLO1: Explain how Business Process Management enables organisational strategy and design using Information Technology and other resources.
- CLO2: Document processes using a Business Process Modelling and Notation tool.
- CLO3: Analyse the performance of processes using a variety of quantitative and qualitative tools and methods.
- CLO4: Propose and plan a process improvement solution.

The case study is divided into two Assessment tasks: 1) Individual Assignment (Part A) and 2) Team project. The individual Assignment is worth **20%**. The Team project consists of two parts (Part B and Part C), both parts are worth **30%** of the course's total score. Part C includes a pitch video.

This brief is for the individual Assignment which is to be completed **individually**.

Please find relevant information on Moodle under the section "Case Study".

## 2 IMPORTANT NOTE on File-Sharing Websites – Please read

There are some file-sharing websites that specialise in buying and selling academic work to and from university students.

You should be aware that you would be committing **plagiarism** if you download a piece of work from these websites and present it as your own either wholly or partially. For more information about Academic Integrity and Plagiarism, please [click here](#).

**If you upload your original work to these websites**, and if another student downloads and presents it as their own either wholly or partially, **you might be found guilty of collusion — even years after graduation**.

These file-sharing websites may also accept purchase of course materials, such as copies of lecture slides and tutorial handouts. By law, the copyright on course materials, developed by UNSW staff in the course of their employment, belongs to UNSW. It constitutes **copyright infringement**, if not plagiarism, to trade these materials.



### 3 Key Dates

What?	When?
Submission of Individual Assignment	Electronic WORD submission via <b>Moodle</b> before <b>Friday 15 March 2024, 11.59 am MIDDAY (week 5)</b> <i>Assignments not submitted via Moodle (e.g. email) will NOT be marked.</i>

*\* The submission is scheduled on at 11.59AM. We highly recommend all tasks to be submitted Monday-Friday during business hours (e.g. Thursday 3.00PM) in order to avoid any technical problem. Technical problems are NOT a valid excuse for late submission. Any late submission will incur penalty even if it is related to technical problems.*

### 4 Case Scenario

#### Case Study – Apec Electronics

Consider the supply chain of Apec Electronics described below:

#### Background

In the competitive fast-paced consumer electronics industry, companies face intense competition, rapid innovation cycles, and the constant pressure to bring products to market efficiently and cost-effectively. A key component in maintaining a competitive edge is efficient supply chain management, with a particular focus on the purchasing process. This case study examines a mid-sized consumer electronics manufacturer, Apec Electronics focusing on its purchasing processes, the challenges encountered, and the adoption of Business Process Management (BPM) solutions to address these challenges.

#### Company Overview

Apec Electronics specializes in the design and manufacturing of a wide range of consumer electronics, including smartphones, tablets, wearables, and home automation devices. With a global supplier network and operations spanning multiple countries, the company must navigate complex supply chains, adhere to international regulations, and manage inventory efficiently to meet the dynamic demands of the market. The company's supply chain needs are particularly diverse, necessitating a wide variety of components such as semiconductors, batteries, displays, and various electronic modules from a multitude of suppliers around the world.

The company deals in sifting through various vendors to procure their production materials. This process spans from the moment an employee at Apec Electronics sends in a requisition form for components, awaits approval from their respective department heads, proceeds through supplier selection and order placement, and culminates in Apec Electronics' payment and receipt of the components they have requested. Selecting the right vendor depends on different methods such as opting for a preferred vendor or performing open-market research. In the past year, Apec Electronics requested 50,000 components from preferred suppliers and 10,000 components from new suppliers.

This process at Apec Electronics is a systematic approach to purchasing goods and services, designed to be both efficient and effective.

Here's a straightforward, step-by-step explanation of how it works, focusing on the roles of each stakeholder:

**1. Requisition Initiation:** The process begins when an employee identifies the need for components. The employee fills out and submits a requisition form detailing the specifications of each item. This form is emailed directly to their respective department heads. This requisition form specifies:

- Requester information: Employee ID, employee name.
- Item information: item name, item description, quantity, and preferred vendor (whether the component requires a preferred vendor)

**2. Approval Workflow:** Once the requisition form is submitted, it goes to the relevant managers or department heads for approval. These approvers review the request to ensure it aligns with budgetary constraints and operational needs. If the requisition is approved, the department head inputs all the specifications into the company's online procurement system. For denied requisitions, the requester is informed about the denial.

**3. Supplier Selection:** With the requisition approved, the procurement team takes over. They evaluate potential suppliers based on various criteria such as price, quality, delivery times, and Environmental, Social, and Governance (ESG) rating. The goal is to select the supplier that offers the best value while meeting Apec Electronics standards. This stage is fraught with complexities, as it involves navigating a global network of potential suppliers, each with their own unique offerings and challenges.

- **For requisitions specifying preferred suppliers,** the procurement department evaluates the applicable suppliers under their Preferred Supplier List and selects the supplier for procurement.
- **For all other requisitions that require new suppliers,** the procurement team researches external directories and resources to discover new options. The team then sends out a request for quote (RFQ) form to the suppliers to specify what products or services can be given and their costs. The procurement team will now wait for a quote from each of the contacted suppliers detailing price, quality, and delivery terms. Once the supplier responds with a quotation, the procurement team re-evaluates the quotation, and makes the selection if the details match their requirements. The procurement team sets a maximum deadline for receiving quotes. They evaluate all quotations received by this deadline and do not wait for any additional responses past this specified date.

**4. Purchase Order Generation:** After selecting a supplier, the procurement team generates a purchase order (PO). The PO details the PO reference number, product/service specifications, agreed-upon price, quantity, and delivery terms. The procurement team compiles all the POs listed per supplier. An employee of the procurement team performs a final review of each PO before dispatching it to the specific supplier. The POs are then emailed to their respective suppliers.

**5. Order Fulfillment:** The supplier receives the PO and proceeds to fulfil the order by delivering the goods or services. Upon delivery, Apec Electronics' receiving department conducts thorough quality inspections to ensure that the items meet the specified standards. They first verify that the correct items have been delivered by matching them against the PO specifications. Next, a quality check is performed to identify any defects or damage to the items. Lastly, the quantity of the received goods is checked and matched to the inventory balance of the requesting department. Each check must be passed before proceeding to the next. If a check is not passed, the discrepancies are documented and at the end reported to the procurement team for resolution. The procurement team then contacts the supplier regarding the failure to correctly deliver the items. Depending on the decision reached, the supplier may replace and resend the order or opt to terminate the entire order. For successful deliveries, a signed receipt is generated and sent to the supplier to confirm the received items and quantities.

**6. Invoice Processing:** Following successful delivery, the supplier emails a digital invoice to Apec Electronics for verification. The accounts payable department matches the invoice against the PO and the receiving document. In cases with discrepancies between these

documents and the invoice, the invoice is rejected, and the vendor is sent a reminder every 7 days until the correct invoice is issued.

**7. Payment Settlement:** Upon successful verification, the invoice is approved for payment by the accounts payable department. The department then electronically processes payment to the vendor. A confirmation of payment is emailed to the vendor. The company then awaits a receipt of payment from the vendor. This marks the end of the entire process.

The process can experience failure under these conditions:

- **Budget constraints:** If budget limitations arise after requisition approval, the P2P process can be terminated to avoid unnecessary spending.
- **Failed order fulfilment:** If the delivered goods or services do not meet the specified quality or quantity standards.
- **Invoice processing stage:** If the invoice contains significant errors or discrepancies compared to the PO and receiving report, and the supplier has been reminded more than 3 times.

## POTENTIAL ISSUES:

### EMPLOYEES AND STAFF

- Approvers, including managers and department heads at Apec Electronics, have expressed concerns regarding the inefficiency of frequently approving identical items on a regular basis (e.g. fortnightly). It's been observed that at least 40% of the requisitions are repetitive, which unnecessarily consumes significant time and effort that could be allocated to more strategic tasks. This repetitive approval process not only adds to the administrative burden but also highlights potential inefficiencies within the procurement system.
- Due to the sheer volume of component requisitions, discrepancies are not always identified until later on in the process. This requires staff to perform several time-consuming checks and communicate these errors to upper management or the suppliers. This causes delays to the overall process.
- Email communication is used most of the time for sending documents and receiving responses. These enquiries are sent through a single company email address. Both suppliers and employees alike forget to include the reference number especially when bringing up the issue of discrepancies.

### SUPPLIERS

- When discrepancies are identified, it often leads to disputes between Apec Electronics and the supplier. Resolving these disputes involves negotiation or adjustment to the invoice, which can be time-consuming and may strain the relationship between Apec Electronics and its suppliers. Efficiently managing these disputes is crucial to maintaining healthy supplier relationships and ensuring timely payments.
- It is important to note that at Apec Electronics, the process of selecting suppliers extends beyond conventional metrics of price, quality, and delivery times to include a comprehensive evaluation of Environmental, Social, and Governance (ESG) ratings.

This meticulous approach underscores the company's commitment to sustainability and ethical practices, reflecting its dedication to not just meeting but exceeding industry standards. The procurement team at Apec Electronics actively engages in a rigorous assessment process, meticulously analysing potential suppliers' ESG performances as a critical determinant in their selection process. This involves an in-depth review of the suppliers' environmental impact, social responsibility initiatives, and governance practices. However, supplier selection has become very competitive over the years as preferred suppliers are almost always chosen due to the shorter processing time. Newer suppliers are not given as many contracts and eventually leave Apex Electronics' supplier base.

## STRATEGIC GOALS

Apex Electronics is looking to increase its profit margins within the next 3 years. This requires stronger revenue growth and unlock significant cost savings. The company would also like to start a shift toward integrating sustainability in their vendor evaluation. Their target is to have 60% of their preferred suppliers have an ESG rating of at least 65 out of 100. To strengthen their competitive edge in the electronics manufacturing industry, constant innovation and optimisation in their key activities is crucial in achieving their goals.



## 5 Tasks

Use the above case study to perform the following tasks:

1. What type of process is described in the above case study? Justify your answer in less than 100 words. (*Hint: e.g. order-to-cash; type of process does not mean support process, core process or management process*) (10%)
2. **Identify and discuss** TWO [2] primary issues (issues related to a process) facing Appec Electronics. ONE [1] of these issues must be related to sustainability. **Discuss** why these issues are the most important? [500 words maximum] *Do NOT make any recommendations on how to fix the problems at this stage.* (Hint: choose the two main issues in this process) (20%)
3. Capture the **as-is** process model of the case from the perspective of Appec Electronics. Give a name to this process. This BPMN model should not only deal with the “normal course” of action, but it should also show how different scenarios (as described in the case) are modelled. You will be assessed on the syntactic quality, semantic quality and pragmatic quality of your model. This diagram is a communication tool to be used by business managers. This means the diagram must be easy to understand and meet the needs of a wide range of stakeholders while capturing pools, lanes and gateways. Be sure to comply with the modelling guidelines introduced in the course, i.e. BPMN 2.0. (60%)
4. Written communication (please see rubric for more details) (10%)

## 6 Submission Guidelines

For the written report, you need to consider:

- **UNSW Coversheet.** Submit your assignment with a signed coversheet (digital signature, accepted). Failure to include the UNSW coversheet will lead to 5% penalty, and no marks will be released until the coversheet is received.
- **Table of Contents / Executive Summary.** There is NO executive summary, NO outline or table of contents required for this part of the assignment.
- **Format.** The style/format of the report can be as you find it appropriate and useful. You should use headings, sub-headings, bullet points, diagrams and tables as appropriate. The file format of the report is WORD document only.
- **References.** References and citations (if any) should follow the UNSW (Harvard) citation style.
- **Word count:** you must stick to the word count. No leeway.
- **Models:** Download the models from Signavio and insert them into your WORD document (refer to the below section)
- **Turnitin title and File naming convention:** We only accept WORD documents. Your submitted file should be in the format “**Tutorial-zID-FullName.docx**” (e.g. W18A-z1234567-JoeSmith.docx). Your **Turnitin title** should be the same as your file name without the .docx (e.g. W18A-z1234567-JoeSmith). **Failure to use the exact and correct file naming convention will lead to 5% penalty (will be enforced).**
- **You can only submit a WORD document (insert the model inside – see section below). We do NOT accept PDF, ZIP, or other formats.**
- **Do NOT submit a link.**
- Text inserted as pictures will NOT be marked. Only figures/models can be inserted as pictures.

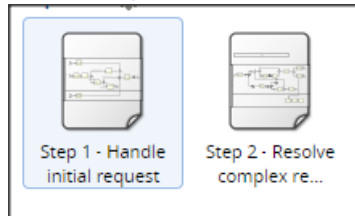


## 7 How to insert your model into your WORD document

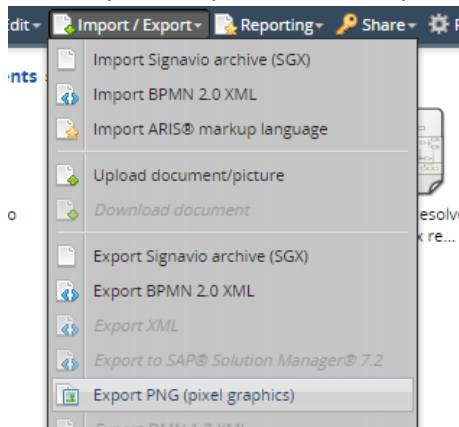
***You must layout the model in a way that we can read it on the screen. We will NOT rotate your model to mark it. If we cannot read it, we will NOT mark it. We suggest using Landscape format.***

*How to insert your model from Signavio*

1. *In your Signavio Folder, click the model you want to export*



2. *Click Import./ Export from the top, and Choose Export PNG (pixel graphics)*



3. *The file will be downloaded on your computer (.png)*
4. *Insert the PNG file into this Word document.*

## 8 Assessment Criteria, Grading and Feedback

In assessing your work, two questions will be considered:

1. Have you fulfilled ALL of the requirements of the assessment task?
2. How well have you demonstrated your achievement of the learning outcomes associated with the task?

Feedback on this individual assessment task will be provided:

- Summatively, by the teaching team within 10 working days.

## 9 Rules

### 9.1 Proper Academic Conduct

All assignments need to follow UNSW's guidelines regarding proper academic conduct. The submission of materials that are non-original or have been submitted elsewhere will be considered plagiarism. Plagiarism is unacceptable. All instances of plagiarism or other academic misconduct will be pursued. Plagiarism may lead to you failing this course, and may have negative consequences for your studies at UNSW. The general UNSW guideline on academic conduct are available online. For Team Assignments: If your team suspects that a team member's work contains plagiarism then you should raise this with the team member concerned and have the problem rectified. If the problem is not rectified, notify the LIC who will call in a team meeting.

### 9.2 Timely Assignment Submission

Assignments are to be submitted online on, or better before, the due date. Late submission of assignments is not desirable and will lead to reduced marks. **The late submission of assignments carries a penalty of 5% of the awarded marks for that assignment per day of lateness (including weekends and holidays).** For example, a 70 marking would be reduced by 3.5 marks per day of lateness.

An extension of time to complete an assignment may be granted by submitting a Special Consideration in the case of illness or misadventure.

Even if an extension is granted, parts of the marks that are dependent on a timely submission and timely progression of the course (esp. marks for participation in the peer review process) cannot be achieved at all. The general UNSW guidelines for special considerations are available online.

For team assignments: teams are expected to plan ahead and to be able to balance out a missing member without an extension. An extension is unlikely to be granted for teams.