

# Week 5 Expenditure Cycle: Purchasing to cash payments

Ordering Goods and services	Receiving and Storing goods and services	Paying Suppliers
<p><b>1. What to purchases:</b></p> <ul style="list-style-type: none"> <li>-Just-in-time or <b>Material Requirements Planning</b></li> <li>-Pushing the <b>wants</b> of the business</li> </ul>	<p>Reports to warehouses managers → Director to manufacturing</p>	<ul style="list-style-type: none"> <li>-Approval of <b>Vendor invoice</b></li> <li>-Payment</li> </ul>
<p><b>2. How much to pay</b></p>		<p><b>Approval:</b></p> <p>Vendor: accounts payable Payment: Treasurer; cashier</p> <p>→ Separation of duties</p>
<p><b>3. When and how much to purchases:</b></p> <ul style="list-style-type: none"> <li>-<b>Economic Order Quantity</b> Model</li> <li>(Used in very <b>small sub-set</b> of decisions; <i>As: Economic ≠ Environment works</i></li> <li>→ Can't use ☹)</li> </ul>		<p><b>Invoice processing:</b></p> <p>Voucher: Every action authorized by a document Non-voucher: Just posted to supplier records → No special form is created to process to payment</p>
<p><b>4. Who will purchase from</b></p> <ul style="list-style-type: none"> <li>-<b>Vendor management system</b> (Consider things outside expenditure cycle) →</li> <li>-Past quality</li> <li>-Timeliness</li> <li>-Price</li> </ul>		<p><b>Payment Control</b></p>
<p><b>Order Controls</b></p> <p>→ Ensure that we select the <b>right goods</b> at <b>right quality</b> at <b>right time</b> at <b>right price</b></p>	<p><b>Receiving Controls</b></p>	<p><b>(1) Failure to take advantage of discounts: ☹</b></p> <ul style="list-style-type: none"> <li>-File <b>invoices</b> by <b>due date</b></li> <li>-<b>Cash management system:</b> Invest in security market rather than paying early</li> </ul>
<p><b>(1) Ordering items not needed (Wrong item): ☹</b></p> <ul style="list-style-type: none"> <li>-<b>Edit checks</b> on order (accuracy and completeness check)</li> <li>-<b>Review</b> and <b>approval</b></li> <li>-<b>Perpetual inventory system</b></li> </ul>	<p><b>(1) Accept unordered items: ☹</b></p> <ul style="list-style-type: none"> <li>-Require <b>approved purchase order</b></li> </ul>	<p><b>(2) Paying for items not ordered or not received: ☹</b></p> <ul style="list-style-type: none"> <li>-<b>Match documentation</b> from ordering and receiving steps</li> <li>-<b>Require receipts</b> for employee receipts</li> <li>-Use of <b>corporate cards</b></li> </ul>
<p><b>(2) Purchased at inflated prices: ☹</b></p> <ul style="list-style-type: none"> <li>-Price lists</li> <li>-<b>Competitive bidding</b> (what you are expect to pay)</li> <li>-<b>Job rotation</b> in purchase function</li> <li>(☹ Things un-done if person regularly move to the other roll; e.g. vocation)</li> </ul>	<p><b>(2) Wrong quantity: ☹</b></p> <ul style="list-style-type: none"> <li>-<b>Inspection</b> and <b>receiving reports</b></li> <li>-Require <b>employee</b> to <b>sign the report</b></li> <li>-<b>Bar codes</b></li> </ul>	

<ul style="list-style-type: none"> <li>-Separate supplier selection &amp; authorisation duties</li> <li>-Require staff to disclose gifts and relationships with suppliers</li> </ul>		
<p><b>(3) Poor Quality:</b> ☹</p> <ul style="list-style-type: none"> <li>-Approved supplier list</li> <li>-Monitor rejection/ return rate</li> <li>-Collect supplier performance data → evaluate regularly</li> </ul>	<p><b>(3) Wrong Quality:</b> ☹</p> <ul style="list-style-type: none"> <li>-Inspection and receiving report</li> </ul>	<p><b>(3) Duplicate payments: (Double payments)</b> ☹</p> <ul style="list-style-type: none"> <li>-Complete voucher package for all invoice payments</li> <li>(Matching process: check whether the payment has been reprocessed)</li> </ul>
<p><b>(4) Right amount &amp; Right time:</b> ☹</p> <ul style="list-style-type: none"> <li>-Use established methods → determine order point</li> <li><i>(E.g. economic order quantity algorithm, materials requirements planning)</i></li> </ul>	<p><b>(4) Theft:</b> ☹</p> <ul style="list-style-type: none"> <li>-Restrict physical access to inventory: Only authorized people can go to the inventory</li> <li>-Documents all transfers to employees</li> <li>-Periodic stock-take</li> </ul>	<p><b>(4) Theft of funds:</b> ☹</p> <ul style="list-style-type: none"> <li>-Surprise audit</li> <li>-Rotation of duties</li> <li>-Enforce holidays</li> <li>-Physical security of cheques</li> <li>-Multiple authorisers required for large amounts</li> </ul>
<p style="text-align: center;"><b>Efficiency Measures</b></p>	<p><b>(5) Services not performed:</b> ☹</p> <ul style="list-style-type: none"> <li>-sign-off against work-order</li> <li>-Separate inspection and authorisation duties (*When dealing with non-physical products → Need someone to sign the order → Verify the services)</li> </ul>	<p><b>(5) Insufficient funds:</b> ☹</p> <ul style="list-style-type: none"> <li>-Cash Flow budgets</li> </ul>
<p style="text-align: center;"><b>Efficiency Measures</b></p> <p><b>1. Aggregate purchases acquisitions:</b></p> <ul style="list-style-type: none"> <li>-Administration cost driven by no. of purchase orders processed</li> <li>-Combine requisitions for a vendor: → Reduce no. of PO documents → Obtain volume discounts</li> </ul> <p><b>2. Automate Transactions:</b></p> <ul style="list-style-type: none"> <li>-Use EDI to transmit purchase orders (Standardize the purchasing systems)</li> <li>-Use <span style="border: 1px solid black; padding: 2px;">vendor-managed inventory system***</span> (Everyone can gain benefit!!!☺ )</li> </ul> <p><b>3. Use a reserve auction</b></p> <ul style="list-style-type: none"> <li>-Online system</li> <li>-Select best quality at lowest prices</li> </ul>		<p style="text-align: center;"><b>Efficiency Measures</b></p> <p><b>1. Invoiceless Transactions:</b></p> <ul style="list-style-type: none"> <li>-Pre arranged price</li> <li>-Pay when goods are received (Match purchase order with delivery)</li> </ul> <p><b>2. Electronic Documents (EDI)</b></p> <ul style="list-style-type: none"> <li>-System automatically matches invoices to Pos and receiving reports</li> </ul> <p><b>3. Computer managed EFT</b></p> <ul style="list-style-type: none"> <li>-Take advantage of early-payment discounts</li> </ul>

### Vender Inventory Control System\*\*\*

-Electronic Data Interchange (EDI)

-The retailer has given their **vendor access rights to their point-of sale (POS) system**

#### Advantages:

☺ **Lower cost:** Retailers able to “outsource” their inventory management → vendors

☺ **Potentially reduced lost sales:** able to meet product demand → Min lost sales due to stock outs

☺ **More accurate forecasts:** Vendors have more data → more accurately forecast and meet demand for their products

Disadvantages	Controls
⊗ <b>Cost:</b> Incur costs of acquiring the technology → changing the organization to a VMI arrangement	<b>Analyse inventory costs:</b> → If VMI is working → <b>Overall inventory costs</b> → <b>Decline</b>
⊗ <b>Security:</b> -Retailer puts one of their most valuable assets, sales data → Vendors → <b>System security issues:</b> (1) Data alteration and deletion (2) Unauthorised access to non-sales related data (3) Inadvertent loss of data (4) Corporate espionage	<b>Intrusion detection systems:</b> → Determine if the vendor has <b>compromised the security</b> of the retailer’s system  <b>Monitor unauthorised access attempts:</b> All attempts by vendors to access <b>non-VMI related areas</b> → should be <b>investigated</b>
⊗ <b>Over supply:</b> Ship more inventory than the retailer needs	<b>Monitor inventory levels:</b> -At least at first/ <b>periodically</b> -The retailer should <b>monitor inventory levels</b> → Whether the vendor is sending enough inventories to prevent stock out but not too much inventory

## Week 3 Excel: Scenarios, what-if, and sensitivity analysis

<b>1. Range Name</b>	<ul style="list-style-type: none"> <li>☺ Provide information about <b>meaning</b> of the cells</li> <li>☺ Make formula <b>more understandable</b></li> </ul> <p>(Use <b>brief &amp; meaningful</b> name; <b>Avoid range name</b> that are also function name (E.g. SUM); Excel usually defines range name as absolute references)</p>
<b>2. What-if Analysis</b>	<p>Models (simplicity of Reality) → Allows Experimentation</p>
<b>2.1 Scenario analysis</b>	<p><b>Big picture:</b></p> <ul style="list-style-type: none"> <li>-determine some situations (scenarios) that might occur (E.g. Likely; optimistic; pessimistic)</li> <li>-List all changes in <b>input</b> for each situation</li> </ul> <p><b>Requirements:</b></p> <ul style="list-style-type: none"> <li>-Well-structured input/ output scenario</li> <li>-Output depends on input through use of formulas</li> <li>-changing cells should be the same worksheet</li> </ul> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: 400px;"> <ul style="list-style-type: none"> <li>-current policy</li> <li>-most likely scenario</li> <li>-best or worst case scenario</li> </ul> </div>
<b>2.2 Data Sensitivity analysis</b>	<ul style="list-style-type: none"> <li>-How sensitive <b>output</b> from a system is to changes in a single function of output)</li> <li>-After constructing the table → Construct a graph to compare the sensitivity</li> </ul>

## Week 4 Excel: Working with Excel Tables, Pivot Tables, and Pivot Charts

<b>3. Freezing Rows and Columns</b>	<ul style="list-style-type: none"> <li>-Keep <b>headings</b> as visible (Column names)</li> <li>-Although you row down → The title is always here</li> </ul> <p><b>Requirements:</b> No <u>BLANK</u> row/ column (Otherwise: Stop titling)</p>
<b>4. Creating an Excel Table</b>	<p><i>E.g. Color</i> → Maintain the SAME pattern (Home → Format as a table)</p> <ul style="list-style-type: none"> <li>-<b>Perform calculations:</b> The <b>formula</b> will refer to the <b>column name</b> but not “cell name”</li> <li>→ <b>Automatic calculations</b> (over the whole table) → ☺ Save time</li> <li>-Easy insertion and deletion of data</li> <li>-Easy <b>filtering</b> (selecting rows based on values)</li> </ul> <div style="text-align: right; margin-right: 20px;">  </div>