

# CHAPTER - 34

## Accounting and Technology

---

### Question 1

A listed company's financial transactions are carried out in ERP. Following financial reporting weaknesses were observed during internal control over financial reporting:

1. There is no appropriate documented process with respect to financial closing and reporting, including identification and updating of internal and external financial reporting requirements and deadlines.
2. Changes made to financial closing and reporting process are not valid and properly authorised.
3. Roles and responsibilities in the financial closing and reporting process are not clearly defined, documented, updated, and not communicated to appropriate departments and individuals on a timely basis.
4. Individuals in financial reporting roles do not have the necessary understanding of the organisation's operations and appropriate accounting knowledge to properly perform their assigned responsibilities.
5. When alternative accounting treatments are available for a significant event or transaction, the decisions on which treatments to select are not documented, approved by management, and are not communicated to the audit committee.
6. General policies are not established and documented regarding permissible overrides of existing policies and procedures for the financial closing and reporting process.
7. User profiles (on General Ledger (G/L) system) are not monitored/maintained to ensure that appropriate individuals have access to financial reporting process.
8. The appropriate accounting treatment is not specified for each non-routine event, transaction, and account balance, including those requiring the use of accounting estimates and judgment in the selection and application of accounting principles.
9. Relevant, sufficient, and reliable data necessary to record, process, and report each non-routine event or transaction is not captured.
10. There are no procedures to ensure all postings have occurred in the correct period.
11. The application of the entity's accounting policies to each non-routine event or transaction is not performed on a timely basis and appropriately documented by knowledgeable and qualified personnel using approved methods and formats.
12. All non-routine events and transactions are not accurately processed in the appropriate accounting period.
13. There is no independent review of application of the entity's accounting policies to each non-routine event or transaction for appropriateness and absence of bias by an individual with the appropriate level of authority and experience.
14. There is no basis for significant estimates and judgments associated with each non-routine event or transaction.
15. No analysis is prepared accurately and consistently in accordance with the entity's defined financial closing process and in the appropriate accounting period.
16. All sources of information for routine and non-routine events and transactions are not identified

and analysed.

17. There are no reconciliations for all significant accounts and no independent review of such reconciliation.
18. All intercompany transactions and balances are not identified, reconciled, and appropriately eliminated in consolidation in the appropriate accounting period.
19. All suspense accounts are not identified and monitored.
20. The trial balance(s) used to prepare the financial statements are not generated from the final general ledger(s).
21. All trial-balance accounts are not appropriately and consistently grouped for presentation in the financial statements for accounting periods presented.
22. There are no restrictions to access and to run transactions in the automated consolidation software which may compromise the integrity of financial data
23. All related-party events and transactions are not identified and authorised, appropriately accounted for, and disclosed in the appropriate accounting period.
24. There are no procedures to ensure all postings have occurred in the correct period.
25. Entries recorded directly to the financial statements are not valid.

Provide illustrative steps for Financial Closing and Reporting.

### Answer

Following are the illustrative steps for Financial Closing and Reporting:

- (a) **Verify that the process includes identification and updating of internal and external financial reporting requirements and deadlines.**
- (b) **Review the documented process to ensure it aligns with the organization's financial reporting policies and regulatory guidelines.**
- (c) **Use the ERP system's change management functionality to track and validate changes made to the financial closing and reporting process using system logs and audit trail.**
- (d) **Verify that changes to the process are authorized by designated individuals with appropriate authority using system logs.**
- (e) **Review the change requests, approvals, and documentation within the ERP system to ensure proper authorization and validation of process changes.**
- (f) **Validate that roles and responsibilities in the financial closing and reporting process are clearly defined within the ERP system by reviewing users access matrix configurations and system logs.**
- (g) **Assess the qualifications and training records of individuals assigned to financial reporting roles within the ERP system.**
- (h) **Validate that individuals responsible for financial reporting have necessary understanding of the organization's operations and appropriate accounting knowledge.**
- (i) **Validate that decisions on alternative accounting treatments for significant events or transactions are documented and approved by management by reviewing the Journal vouchers listing.**
- (j) **Review ERP system for documentation of accounting treatment decisions, including approvals**

and communication to the audit committee.

- (k) Review the ERP system's user administration functionality to ensure appropriate individuals have access to the financial reporting process.
- (l) Review whether proper KYC validation controls in place for creating account masters and review the process for identifying related party transactions.
- (m) Validate that the ERP system captures and documents the appropriate accounting treatment for each non-routine event, transaction, and account balance by reviewing Journal Vouchers listing.
- (n) Use the ERP system's audit trail and reporting capabilities to validate that all postings have occurred in the correct accounting period reviewing accounting period configuration controls.
- (o) Review the system's controls for preventing backdating or unauthorized adjustments to postings by reviewing the posting date and transactions date of entries.

## Question 2

Company XYZ is a manufacturing company that implements Ind AS 2 and wants your advice on utility of an ERP system for inventory management. They also aim to integrate ICOFR controls into their ERP system to ensure accurate inventory valuation, minimize the risk of inventory fraud, and enhance process efficiency and accordingly they need your guidance in integrating ICOFR in ERP system.

Also, advice the steps to be followed if the company cannot afford an ERP system but still want to ensure proper implementation of Ind AS 2 to the extent possible.

## Answer

### A. ERP System for inventory management

ERP system integrates all relevant modules, such as inventory management, production, purchasing, and cost accounting. This ensures data consistency and reduces manual errors in recording and processing transactions. Following illustrative steps may be followed to configure and enable ERP with following modules:

- **Maintain an updated and accurate Bill of Materials (BOM) Management** within the ERP system, specifying components required for each control unit. This allows system to calculate total cost of materials accurately by considering the quantities and costs of each component.
- **Implement Purchase order controls** within the ERP system to manage the procurement process effectively. This includes verifying purchase requisitions, obtaining appropriate approvals, and ensuring that the correct quantities and costs of materials are recorded.
- **Define appropriate costing methods** within the ERP system to allocate costs to inventory accurately. The ERP system should be configured to apply the chosen costing method consistently across all inventory transactions.
- **Track labour costs** within the ERP system by integrating with timekeeping or attendance systems. This ensures accurate recording of the number of hours worked by production workers and enables the calculation of labour costs based on the defined hourly rate.
- **Define an overhead absorption rate** within the ERP system to allocate production overheads to inventory. This rate should be based on the normal level of production per month. The ERP system should apply the overhead rate consistently to all units produced

during the period.

- **Integrate the ERP system with the general ledger** and expense allocation modules to accurately allocate non-production expenses such as factory rent, energy costs, and selling and administrative costs. This ensures that these expenses are appropriately recorded and reflected in the cost of inventory.
- **Perform periodic reconciliations** between the inventory records within the ERP system and physical inventory counts. This helps identify any discrepancies and ensures the accuracy of inventory valuation.
- **Utilise the reporting and analytics capabilities** of the ERP system to generate accurate and timely reports on inventory costs. These reports should provide detailed breakdowns of material costs, labour costs, overheads, and any other relevant cost components.

#### **Integration of ICOFR in ERP system:**

The management of company XYZ may integrate ICOFR controls in ERP system by using following points:

- (a) The integration of ICOFR into ERP system is configured to **enforce segregation of duties** within the inventory management process. For example, the system restricts the ability to initiate purchase orders, receive goods, and update inventory records to separate individuals. This segregation ensures that no single employee has the ability to manipulate inventory quantities or values without appropriate checks and balances.
- (b) ICOFR is incorporated by **implementing access controls** in the ERP system. Users are granted access to inventory-related functions based on their roles and responsibilities. For instance, only authorized personnel can modify inventory master data, update cost information, or perform inventory counts. This prevents unauthorized access and reduces the risk of data manipulation or theft.
- (c) To ensure proper authorization, the ERP system **includes workflow approval processes** for inventory transactions. For example, when a purchase requisition is raised, the system automatically routes it through predefined approval hierarchies based on transaction value or other criteria. This ensures that inventory purchases are authorized by the appropriate individuals before they are processed.
- (d) The company utilizes barcode or radio-frequency identification (RFID) technology to enhance inventory control and accuracy. The ERP system is **integrated with barcode scanners or RFID readers**, allowing real-time tracking of inventory movements. This reduces manual data entry errors and provides accurate and up-to-date inventory information within the system.
- (e) ICOFR requires periodic physical inventory counts to verify the accuracy of recorded inventory quantities. The ERP system supports this process by generating inventory count sheets or reports based on predefined criteria such as product categories or locations. The system can also reconcile the physical count results with the recorded quantities, highlighting any discrepancies for further investigation and adjustment.
- (f) **Technology-driven data analytics tools can be integrated** into ERP system to identify inventory-related exceptions or anomalies. For example, the system can analyse inventory turnover ratios, slow-moving or obsolete items, or abnormal inventory cost fluctuations. These analytics help in detecting potential control weaknesses or irregularities, enabling

timely action by management.

- (g) The ERP system can **provide management dashboards or customized reports** that display key inventory control indicators. These dashboards summarize information such as inventory turnover, stock levels, and valuation accuracy. They facilitate monitoring and decision-making, enabling management to assess the effectiveness of ICOFR controls and take corrective actions if needed.

#### B. Inventory management in the absence of efficient ERP system

In absence of ERP system or in the absence of properly configured ERP system, the alternative procedure available is by exporting the data to a spreadsheet and perform the following steps:

- (a) **Export the relevant data from the accounting package**, including information such as quantities, costs, labour hours, and overhead expenses into a spreadsheet. Ensure that the exported data contains all the necessary details to calculate the inventory costs accurately.
- (b) Organize exported data in appropriate columns. **Label** each column with **corresponding data**, such as item codes, quantities, costs, labour hours, and overhead expenses.
- (c) **Use the formulas** to calculate the material costs for each item. Multiply the quantities of each component by their respective costs. If there are multiple components, sum up the costs of all components to get the total material cost for each item.
- (d) Use the formulas to calculate the labour costs for each item. Multiply the labour hours for each item by the defined hourly rate to obtain the labour cost.
- (e) Determine the overhead absorption rate based on the normal level of production per month. Multiply the rate by total labour hours to calculate the total overhead cost. Divide the overhead cost by the total quantity of items produced to get the overhead cost per item.
- (f) If there are non-production expenses such as rent, energy costs, or administrative costs, allocate them to each item using an appropriate method. This can be based on quantities, labour hours, or other relevant factors. Apply formulas to distribute expenses accordingly.
- (g) Sum up the material costs, labour costs, overhead costs, and allocated non-production expenses for each item to obtain the total inventory cost.
- (h) If you have physical inventory counts, compare the calculated inventory costs in spreadsheet with the physical counts. Identify any discrepancies and investigate the causes. Adjust the inventory costs as necessary to reconcile them with the physical counts.
- (i) **Create reports in spreadsheet** that provide a breakdown of the inventory costs for each item. Include material costs, labour costs, overhead costs, and allocated non-production expenses. Use formatting and charts to present the information clearly.

#### Question 3

Company Z is engaged in the business of importing oil seeds for further processing as well as trading purposes. It enters into the following types of contracts as on 1<sup>st</sup> October 20X1:

Particulars	Contract 1	Contract 2	Contract 3
Nature of Contract	Import of oil seeds from a foreign supplier	Purchase of oil seeds from a domestic producer/supplier	Contract to sell oil seeds on the commodity exchange

Quantity and rate	100 MT at USD 400 per MT to be delivered as on 31 <sup>st</sup> March 20X2	50 MT at ₹ 30,000 per MT to be delivered as on 31 <sup>st</sup> January 20X2	50 MT at USD 450 per MT, maturing as on 15 <sup>th</sup> January 20X2
Net settlement clause included in the contract	Yes	Yes	Yes
Net settlement in practice for similar contracts	There have also been several instances of the oil seeds being sold prior to or shortly after taking delivery. These instances of net settlement constitute approximately 30% of the value of total import contracts.	Yes - company Z has net settled some of the domestic purchase contracts. However, these instances constitute only 1% of the total domestic purchase contracts in value. The remaining contracts are settled by taking delivery of oil seeds which are used for further processing.	Yes - these contracts are required to be net settled with the exchange on the maturity date. Company Z enters into these types of derivative contracts to hedge the risks on its domestic oil seeds purchase contracts.

Company Z wants to determine if the contracts entered into for purchase and sale of oil seeds are derivatives within the scope of Ind AS 109 or are executory contracts outside the scope of Ind AS 109. Though the Company Z is using an ERP accounting package it is not properly configured to provide the required reports for above said decision making. Therefore, Company Z requires your advice on whether such process of determining the nature of contracts is possible through use of external sources of technology.

### Answer

Yes, it is possible by **extracting the data from the accounting package** or by connecting to the database of the accounting package.

For example, the same can be done by connecting the spreadsheet with database through ODBC connectivity or by extracting the data from accounting package into a spreadsheet. In case the data is being extracted from accounting package, the following steps may be followed:

- (a) Identify the relevant data fields in the accounting package that contain the contract information, such as contract particulars, quantities, rates, and settlement details.
- (b) Export the required data from the accounting package in a compatible format (e.g., CSV, Excel, or other supported formats).
- (c) Open the exported data in Microsoft Excel.
- (d) **Clean the data by removing any unnecessary or irrelevant columns and rows.**
- (e) Ensure that the data is properly formatted and aligned for further analysis.
- (f) **Define the rules or criteria for categorizing the contracts** as derivative or executory based on the requirements of Ind AS 109.
- (g) **Establish conditions using Excel formulas or logical functions** to evaluate the contract data.
- (h) Apply the defined rules or criteria to the contract data using Excel formulas or logical functions.

- (i) **Use functions** such as IF, AND, OR, or VLOOKUP to evaluate the conditions and determine the nature of each contract.
- (j) Create additional columns in Excel to categorize the contracts based on the analysis results.
- (k) **Assign appropriate labels or values** to indicate whether a contract is a derivative or an executory contract.

#### Question 4

An entity provides broadband services to its customers along with voice call service. Customer buys modem from entity. However, customer can also get connection from entity and modem from any other vendor. The installation activity requires limited effort and the cost involved is almost insignificant. It has various plans where it provides either broadband services or voice call services or both.

Comment on how to identify whether the performance obligations under the contract is distinct by using an automated process?

#### Answer

To identify the performance obligations under the contract and determine if they are distinct, an automated process can be implemented using technology. The following steps can be taken:

- (a) **Analyze the clauses in the contract** related to the services provided (broadband services, voice call services, modem sales).
- (b) Each clause should be **codified using appropriate parameters or tags** to capture the relevant information.
- (c) **Assign Boolean values (0 or 1) to each parameter** or tag in the codified clauses.
- (d) Use "0" to represent "No" and "1" to represent "Yes" for each parameter.
- (e) **Define the criteria for evaluating** the performance obligations based on the parameters and their Boolean values.
- (f) Consider factors such as the type of service involved, benefits derived by the customer, and promises made in the contract regarding the transfer of goods or services.
- (g) **Develop an automated algorithm or script that evaluates** the Boolean values of the parameters according to the defined criteria.
- (h) Calculate scores or weights for each parameter based on their significance in determining performance obligations.
- (i) **Utilize the scores or weights assigned to the parameters to determine** if the performance obligations are distinct.
- (j) If the total score exceeds a certain threshold, consider it a separate performance obligation.

The automated process should flag and identify these distinct performance obligations based on the evaluation results.

#### Question 5

T Ltd is engaged in transport sector, running a fleet of buses at different routes. T Ltd has identified 3

operating segments:

Segment 1: Local Route

Segment 2: Inter-city Route

Segment 3: Contract Hiring

The characteristics of each segment are as under:

Segment 1: The local transport authority awards the contract to ply the buses at different routes for passengers. These contracts are awarded following a competitive tender process; the ticket price paid by passengers are controlled by the local transport authority. T Ltd would charge the local transport authority on a per kilometer basis.

Segment 2: T Ltd operates buses from one city to another, prices are set by T Ltd on the basis of services provided (Deluxe, Luxury or Superior).

Segment 3: T Ltd also leases buses to schools under a long-term arrangement.

While Segment 1 has been showing significant decline in profitability, Segment 2 is performing well in respect of higher revenues and improved margins. The management of the company is not sure why is the segment information relevant for users when they should only be concerned about the returns from overall business. They would like to aggregate the Segment 1 and Segment 2 for reporting under 'Operating Segment'.

What are the steps involved to automate the process to determine whether it is appropriate to aggregate Segments 1 and 2 with reference to Ind AS 108 'Operating Segments'?

### Answer

Following steps should be followed to automate the process to determine whether it is appropriate to aggregate Segments 1 and 2 with reference to Ind AS 108 'Operating Segments':

- (a) **Extract the relevant financial data** related to Segments 1 and 2 from your accounting system.
- (b) Ensure that the data includes segment-specific information such as revenue, expenses, assets, liabilities, and any other relevant metrics.
- (c) **Define the criteria for evaluating** whether the segments should be aggregated.
- (d) Consider factors such as the nature of the business activities, economic characteristics, customer base, pricing policies, and risks and returns associated with each segment.
- (e) Utilize automated analysis tools or software capable of processing large volumes of financial data.
- (f) **Apply predefined algorithms or rules to evaluate** financial performance and characteristics of Segments 1 and 2 based on the defined criteria.
- (g) Conduct a comparative analysis of the financial metrics and performance indicators between Segments 1 and 2.
- (h) **Based on the analysis and findings, evaluate** whether it is appropriate to aggregate Segments 1 and 2.
- (i) **Document the rationale behind the decision, including the analysis results and supporting evidence.**
- (j) **Use tools such as business intelligence software, data visualization platforms, or custom-built reporting modules to present the aggregated and segmented data in a meaningful way.**

**Question 6**

New Way Ltd. decides to enter a new market that is currently experiencing economic difficulty and expects that in future the economy will improve. New Way Ltd. enters into an arrangement with a customer in the new region for networking products for promised consideration of ₹ 12,50,000.

At contract inception, New Way Ltd. wants to

- (i) Define criteria for identifying contracts with customers, such as enforceable rights and obligations, agreement terms, and consideration.
- (ii) Establish rules to link relevant transactions to specific contracts and assign unique identifiers to each contract.

Advise the steps to automate the process to perform the above tasks on behalf of New Way Ltd.

**Answer**

A contract management system may be implemented which allows to store and organize contract documents electronically. This system can help you define and capture key contract details, such as enforceable rights and obligations, agreement terms, and consideration.

Accordingly, the said contract management system shall be enabled to configure a mechanism to assign unique identifiers to each contract.

- **Integrate the contract management system or accounting software with other operational systems**, such as sales, CRM, or project management systems. This integration allows for the automatic capture and synchronization of contract-related data, ensuring that transactions associated with specific contracts are accurately linked.
- **Assign specific tags or attributes to contracts based on the defined criteria**, such as contract type, customer name, contract start and end dates, or specific service offerings, to enable efficient searching, filtering, and grouping of contracts based on various criteria.
- **Use custom queries or predefined templates to extract information** on the number of contracts identified, their characteristics, and the associated transactions. This provides visibility into the implementation of Ind AS 115 and helps to monitor compliance.

**In addition to the above, the following may be adopted:**

- **Consider utilizing OCR technology to extract relevant information automatically.** OCR can convert printed or handwritten text into machine-readable format, enabling efficient extraction of contract details for further processing and analysis.
- **Apply machine learning and Neuro-Linguistic Programming (NLP) techniques to analyze and extract contract data automatically.** These technologies can help identify specific contract terms, clauses, or obligations, aiding in the accurate identification and classification of contracts based on predefined criteria.
- **Utilize workflow automation tools to streamline the contract identification process.** Establish predefined rules or triggers within your system that automatically identify new contracts based on specific criteria and assign unique identifiers. This automation reduces manual effort and ensures consistency in contract identification.