

Techniques Available as Substantive Analytical Procedures

Substantive analytical procedures generally take one of the following forms

Trend analysis

- Commonly used technique.
- **Comparison** of
 - **current data with**
 - the **prior period** balance or
 - with a **trend in two or more prior period balances.**
- The auditor evaluates
 - whether the **current balance** of an account moves in **line** with the **trend established with previous balances** for that account, after adjusting for relevant factors responsible for changes

Example: Sales last 3 years: ₹10L → ₹12L → ₹14L

This year: ₹11L → Auditor investigates why sales dropped, despite an upward trend.

Ratio analysis

- Ratio analysis is useful for analysing
 - asset and liability **accounts** as well as revenue and expense accounts.
- An **individual balance sheet account is difficult to predict** on its own, but its relationship to another account is often more predictable (e.g., the trade receivables balance related to sales).
- Ratios can also be compared
 - **over time** or
 - to the ratios of separate entities **within the group** or
 - with the ratios of **other companies in the same industry.**

Reasonableness tests

- Includes reviewing the relationship of certain account balances (FDs) to other balances (Interest) for **reasonableness of amounts.**
- Does **not** rely on data and events of prior periods.
- **Uses non-financial data** for the audit period under consideration
 - Example
 - **occupancy rates** to estimate rental income or
 - **interest rates** to estimate interest income or expense
- These tests are generally **more applicable to income statement** accounts and certain accrual or **prepayment** accounts.

Examples

- Interest expense against interest obligations
- Raw Material Consumption to Production
- Wastage & Scrap % against production & raw material consumption (quantity)
- Work-in-Progress based on issued of materials & Sales (quantity)

- Sales discounts and commissions against sales volume
- Rental revenues based on occupancy of premises which are rented out.

Structural modelling

A modelling tool **constructs a statistical model**

- from **financial** and/or **non-financial data** of prior accounting periods
- to **predict current** account balances

(Simple words – We use a statistical model to predict current account balance on the basis of prior accounting periods.)

- The most commonly used procedure is regression analysis, which is used for income statements using monthly data for the past three years.
- The 36 or 48 monthly observations are used to establish a relationship that is used to predict current period balances.

Using regression analysis of 36 months of data, an auditor develops a model that predicts monthly electricity costs

CA D, during the course of audit of a company engaged in export business, notices that credit facilities taken by the company during the year from a bank for ₹10 crores have almost been fully utilized during the year. On going through sanction letter provided by bank to company, it is observed that rate of interest stipulated in sanction letter is 8% p.a. Financial statements of company show bank interest amounting to ₹60.00 lacs. Which type of substantive analytical procedure is being used by CA D?

- (a) Trend analysis
 - (b) Ratio analysis
 - (c) Reasonableness tests
 - (d) Structural modelling
- (MTP2, May 2024, 2 Marks)

Analytical Procedures used as Substantive Tests

When **designing** and **performing** substantive analytical procedures, either alone or in combination with tests of details, as substantive procedures in accordance with SA 330, the auditor shall

1. Determine **Suitability for Assertion**
 - Determine the suitability of particular substantive analytical procedures for given assertions, Taking account of the
 - assessed risks of material misstatement and
 - Tests of details, if any, for these assertions;
 - Predictability of the amount
2. Evaluate **Reliability** of Data
 - Evaluate the reliability of data
 - from which the auditor's expectation of recorded amounts or ratios is developed,
 - taking account of
 - **Source** of Information
 - **Comparability** of the information

- **Nature & Relevance** of Information
- **Controls** over the preparation of the information

3. **Develop an expectation**

- Develop an expectation of recorded amounts or ratios and
- evaluate whether the expectation is sufficiently precise to **identify a misstatement** that, individually or when aggregated with other misstatements, may **cause the financial statements** to be **materially misstated**, and

4. Determine **Acceptable Difference**

- Determine the **amount** of any difference of recorded amounts from expected values that is acceptable without further investigation.

You're an auditor working on SmartBazaar Ltd., which runs over 100 retail stores across India. Applying Analytical Procedures as Substantive Test

- **Determine Suitability for Assertion:** - You're testing completeness – a good match
- **Evaluate Reliability of Data:** - Data is from ERP, reconciled with billing system – reliable
- **Develop an Expectation:** - Based on past 6 months' trends, seasonal patterns, and cost of goods sold, you expect ₹10 crore in March sales.
- **Determine Acceptable Difference:** - You decide a difference up to ₹50 lakhs is acceptable without further investigation.
Compare Actual vs Expected:
Recorded sales: ₹6 crore
Expected sales: ₹10 crore
✗ Difference = ₹4 crore → Exceeds threshold
- **Conclusion** - This large difference triggers further investigation. You plan to perform tests of details – check invoices, goods dispatch, etc.

Investigating results of analytical procedures		
When?	Relationships inconsistent with relevant information identified	Credit sales increasing, Debtors not increasing
	Actual value differ from expected value by significant amount	Inventory turnover ratio is lower than the expected
How?	Enquire from Management	management said, new product line launched
	Obtain Appropriate audit evidence for management's responses	taking into account the auditor's understanding of the entity and its environment
		and other audit evidence obtained during the course of audit
Problem with Management's Explanation	Performing other audit procedures as necessary in the circumstances	Explanation not adequate or Explanation not provided Repairs & Maintenance increased sharply; no proper bills— auditor verifies logs, invoices, and payments.

Analytical procedures that assist when forming an overall conclusion

- Auditors form conclusions for different components or elements of financial statements.
- Using analytical procedures near the end of the audit helps in confirming those conclusions. (FS are consistent with auditor's understanding of the entity)
- This assist the auditor to draw reasonable conclusion on which to base auditor's opinion
- Analytical procedures might uncover a new ROMM, requiring auditors to revise their risk assessment and modify subsequent audit procedures as per SA 315 and SA 330.

Miscellaneous topics - homework

Suitability of Particular Analytical Procedures for given assertions

- Substantive analytical procedures are generally **more applicable to large volumes of transactions** that tend to be **predictable** over time.
- Suitability of a particular analytical procedure will depend upon the **auditor's assessment** of how **effective** it will be in **detecting a misstatement** that may cause the financial statements to be materially misstated, whether individually or in aggregate.
- The determination of the suitability of particular substantive analytical procedure is influenced by the **nature** of the **assertion** and the auditor's assessment of the **risk of material misstatement**. If risk is high due to lack of controls we will use more tests of details and less (or even no) substantive analytical procedure.
- Substantive analytical procedure may also be considered **suitable to support the test of details**.

The Reliability of Data

The reliability of data is influenced by its source and nature and is dependent on the circumstances under which it is obtained.

Accordingly, the following are relevant when determining whether data is reliable for purposes of designing substantive analytical procedures:

1. **Source** of the information available. For example, information may be more reliable when it is obtained from **independent** sources outside the entity;
2. **Nature and relevance** of the information available. For example, whether budgets have been established as results to be expected rather than as goals to be achieved; and
3. **Comparability** of the information available. For example, broad industry data may need to be supplemented to be comparable to that of an entity that produces and sells specialised products;
4. **Controls** over the **preparation** of the information that are designed to ensure its completeness, accuracy and validity. For example, controls over the preparation, review and maintenance of budgets.

Evaluation of whether the Expectation is sufficiently precise

Matters relevant to the auditor's evaluation of *whether the expectation can be developed sufficiently precisely to identify a misstatement* that may cause the financial statements to be materially misstated, include:

1. The *accuracy* with which the *expected results* of substantive analytical procedures can be *predicted*. Higher the accuracy, the more precise the expectations can be. For example, the auditor may expect greater consistency in comparing salaries and wages from one period to another than in comparing discretionary expenses, such as research etc.
2. The *degree* to which *information* can be *disaggregated*. For example, substantive analytical procedures may be more effective when applied to financial statements of components of a diversified entity, than when applied to the financial statements of the entity as a whole.
3. The *availability* of the *information, both* financial and non-financial. For example, the auditor may consider whether financial information, such as budgets or forecasts, and non-financial information, such as the number of employees (current, who left, new joiners) etc, is available to design substantive analytical procedures. If the information is available, the auditor may also consider the reliability of the information

Amount of difference of Recorded amounts from expected values that is acceptable

The auditor's determination of the amount of difference from the expectation that can be accepted without further investigation is influenced by

- *materiality* and
- the *consistency* with the desired level of assurance,
- taking account of the *possibility* that a *misstatement* may *cause* the *FSs* to be *materially misstated*. As the assessed risk increases, the amount of difference considered acceptable without investigation decreases in order to achieve the desired level of persuasive evidence.