

STANDARD ON INTERNAL AUDIT (SIA) 6

ANALYTICAL PROCEDURES*

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The following is the text of the Standard on Internal Audit (SIA) 6, *Analytical Procedures*, issued by the Council of the Institute of Chartered Accountants of India. These Standards should be read in conjunction with the Preface to the Standards on Internal Audit, issued by the Institute.

In terms of the decision of the Council of the Institute of Chartered Accountants of India taken at its 260th meeting held in June 2006, the following Standard on Internal Audit shall be recommendatory in nature in the initial period. The Standards shall become mandatory from such date as notified by the Council.

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Introduction

1. The purpose of this Standard on Internal Audit (SIA) is to establish standards on the application of analytical procedures during an internal audit.
2. The internal auditor should apply analytical procedures as the risk assessment procedures at the planning and overall review stages of the internal audit. Risk assessment procedures refer to the internal audit procedures performed to obtain an understanding of the entity and its environment, including the entity's internal control, to identify and assess the risks of material misstatement, whether due to fraud or error, in the information subjected to internal audit. Analytical procedures may also be applied at other stages.
3. "Analytical procedures" means the analysis of significant ratios and trends, including the resulting investigation of fluctuations and relationships in both financial and non-financial data that are inconsistent with other relevant information or which deviate significantly from predicted amounts. Analytical procedures provide the internal auditor with an efficient and effective means of making an assessment of information collected in an audit. The assessment results from comparing such information with expectations identified or developed by the internal auditor.

Nature and Purpose of Analytical Procedures

4. Analytical procedures include the consideration of comparisons of the entity's financial and non-financial information with, for example:
 - Comparable information for prior periods.
 - Anticipated results of the entity, such as budgets or forecasts or expectations of the internal auditor.
 - Predictive estimates prepared by the internal auditor, such as an estimation of depreciation charge for the year.
 - Similar industry information, such as a comparison of the entity's ratio of sales to trade debtors with industry averages, or with other entities of comparable size in the same industry.

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5. Analytical procedures also include consideration of relationships:
 - Among elements of financial information that would be expected to conform to a predictable pattern based on the entity's experience, such as gross margin percentages.
 - Between financial information and relevant non-financial information, such as payroll costs to number of employees or total production costs to quantity produced.
6. Various methods may be used in performing the above procedures. These range from simple comparisons to complex analyses using advanced statistical techniques. Analytical procedures may be applied to consolidated financial statements, financial statements of components (such as subsidiaries, divisions or segments) and individual elements of financial information and relevant non-financial information. The internal auditor's choice of procedures, methods and level of application is a matter of professional judgement. Specific analytical procedures include, but are not limited to ratio, trend, and regression analysis, reasonableness tests, period-to-period comparisons, comparisons with budgets, forecasts, and external economic information.
7. In determining the extent to which the analytical procedures should be used, the internal auditor should consider the following factors, including:
 - The significance of the area being examined.
 - The adequacy of the system of internal control.
 - The availability and reliability of financial and non-financial information.
 - The precision with which the results of analytical procedures can be predicted.
 - The availability and comparability of information regarding the industry in which the organization operates.
 - The extent to which other auditing procedures provide support for audit results.

After evaluating the aforementioned factors, the internal auditor should consider and use additional auditing procedures, as necessary, to achieve the audit objective.

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8. Analytical procedures are used for the following purposes:
- to assist the internal auditor as risk assessment procedures to obtain initial understanding of the entity and its environment and thereafter in planning the nature, timing and extent of other internal audit procedures;
 - as substantive procedures when their use can be more effective or efficient than tests of details in reducing detection risk for specific financial statement assertions;
 - as an overall review of the systems and processes in the final review stage of the internal audit; and
 - to evaluate the efficiency of various business/ management systems.
9. Analytical procedures may identify, among other things, differences that are not expected or absence of differences when they are expected, which may have arisen on account of factors such as errors, frauds, unusual or non recurring transaction or events, etc.

Analytical Procedures as Risk Assessment Procedures and in Planning the Internal Audit

10. The internal auditor should apply analytical procedures as risk assessment procedures to obtain an understanding of the business, the entity and its environment and in identifying areas of potential risk. Application of analytical procedures may indicate aspects of the business of which the internal auditor was unaware and will assist in determining the nature, timing and extent of other internal audit procedures.
11. Analytical procedures in planning the internal audit use both financial and non-financial information, for example, in retail business, the relationship between sales and square footage of selling space or volume of goods sold.

Analytical Procedures as Substantive Procedures

12. The internal auditor's reliance on substantive procedures to reduce detection risk relating to specific financial statement assertions and assertions relating to process, systems and controls may be derived

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from tests of details, from analytical procedures, or from a combination of both. The decision about which procedures to use to achieve a particular internal audit objective is based on the internal auditor's judgement about the expected effectiveness and efficiency of the available procedures in reducing detection risk for specific financial statement assertions or assertions relating to process, systems and controls.

13. The internal auditor will ordinarily inquire of management as to the availability and reliability of information needed to apply analytical procedures and the results of any such procedures performed by the entity. It may be efficient to use analytical data prepared by the entity, provided the internal auditor is satisfied that such data is properly prepared.
14. When intending to perform analytical procedures as substantive procedures, the internal auditor will need to consider a number of factors such as the:
 - Objectives of the analytical procedures and the extent to which their results can be relied upon.
 - Nature of the business, entity and the degree to which information can be disaggregated.
 - Availability of information, both financial, such as budgets or forecasts, and non-financial, such as the number of units produced or sold.
 - Reliability of the information available, for example, whether budgets is prepared with sufficient professional care.
 - Relevance of the information available, for example, whether budgets have been established as results to be expected rather than as goals to be achieved.
 - Source of the information available, for example, sources independent of the entity are ordinarily more reliable than internal sources.
 - 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.

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- Knowledge gained during previous internal audits, together with the internal auditor's understanding of the effectiveness of the accounting and internal control systems and the types of problems that in prior periods have given rise to accounting adjustments.
- Controls over the preparation of the information, for example, controls over the preparation, review and maintenance of MIS reports, budgets, etc.

Analytical Procedures in the Overall Review at the End of the Internal Audit

15. The internal auditor should apply analytical procedures at or near the end of the internal audit when forming an overall conclusion as to whether the systems, processes and controls as a whole are robust, operating effectively and are consistent with the internal auditor's knowledge of the business. The conclusions drawn from the results of such procedures are intended to corroborate conclusions formed during the internal audit of individual components or elements of the financial statements, e.g., purchases, and assist in arriving at the overall conclusion. However, in some cases, as a result of application of analytical procedures, the internal auditor may identify areas where further procedures need to be applied before the internal auditor can form an overall conclusion about the systems, processes and associated controls.

Extent of Reliance on Analytical Procedures

16. The application of analytical procedures is based on the expectation that relationships among data exist and continue in the absence of known conditions to the contrary. The presence of these relationships provides the internal auditor evidence as to the completeness, efficiency and effectiveness of systems, processes and controls. However, reliance on the results of analytical procedures will depend on the internal auditor's assessment of the risk that the analytical procedures may identify relationships as expected when, in fact, a material misstatement exists.

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17. The extent of reliance that the internal auditor places on the results of analytical procedures depends on the following factors:
- materiality of the items involved, for example, when inventory balances are material, the internal auditor does not rely only on analytical procedures in forming conclusions. However, the internal auditor may rely solely on analytical procedures for certain income and expense items when they are not individually material;
 - other internal audit procedures directed toward the same internal audit objectives, for example, other procedures performed by the internal auditor while reviewing the credit management process, in the collectibility of accounts receivable, such as the review of subsequent cash receipts, might confirm or dispel questions raised from the application of analytical procedures to an ageing schedule of customers' accounts;
 - accuracy with which the expected results of analytical procedures can be predicted. For example, the internal auditor will ordinarily expect greater consistency in comparing gross profit margins from one period to another than in comparing discretionary expenses, such as research or advertising; and
 - assessments of inherent and control risks, for example, if internal control over sales order processing is weak and, therefore, control risk is high, more reliance on tests of details of transactions and balances than on analytical procedures in drawing conclusions on receivables may be required.
18. The internal auditor will need to consider testing the controls, if any, over the preparation of information used in applying analytical procedures. When such controls are effective, the internal auditor will have greater confidence in the reliability of the information and, therefore, in the results of analytical procedures. The controls over non-financial information can often be tested in conjunction with tests of accounting-related controls. For example, an entity in establishing controls over the processing of sales invoices may include controls over the recording of unit sales. In these circumstances, the internal auditor could test the controls over the recording of unit sales in

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conjunction with tests of the controls over the processing of sales invoices.

Investigating Unusual Items or Trends

19. When analytical procedures identify significant fluctuations or relationships that are inconsistent with other relevant information or that deviate from predicted amounts, the internal auditor should investigate and obtain adequate explanations and appropriate corroborative evidence. The examination and evaluation should include inquiries of management and the application of other auditing procedures until the internal auditor is satisfied that the results or relationships are sufficiently explained. Unexplained results or relationships may be indicative of a significant condition such as a potential error, irregularity, or illegal act. Results or relationships that are not sufficiently explained should be communicated to the appropriate levels of management. The internal auditor may recommend appropriate courses of action, depending on the circumstances.
20. The investigation of unusual fluctuations and relationships ordinarily begins with inquiries of management, followed by:
 - corroboration of management's responses, for example, by comparing them with the internal auditor's knowledge of the business and other evidence obtained during the course of the internal audit; and
 - consideration of the need to apply other internal audit procedures based on the results of such inquiries, if management is unable to provide an explanation or if the explanation is not considered adequate.

Effective Date

21. This Standard on Internal Audit is applicable to all internal audits commencing on or after _____. Earlier application of the SIA is encouraged.