

Auditing and Computerisation in New Zealand (Part 2)

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This is the second of two articles (the first appeared in Edition 6 of intoIT) where Mark O'Conner - Director of Information Systems Audit looks at computerisation of public sector organisations audited by the Office of the Auditor General of New Zealand. This article focuses on the use of Computer Assisted Audit Techniques (CAATs) and auditing of information systems. It identifies some key areas where improvements to EDP/IT auditing may benefit other SAIs.

CAATs and Auditing of Information Systems

Current status and importance of CAATs and audit of IS

During the course of the attest audit, there may be areas identified where the interrogation of client data produces benefits to the audit. These are usually in the areas of financial accounting however there are situations such as the Inland Revenue Department where the CAATs we have developed and run are of benefit to the auditee.

The computer based tools available to our auditors for performing CAATs are spreadsheets (Lotus 123, Excel and Quattro Pro), flowcharts (ABC Flowcharter) and statistical packages (SAS). Attest auditors make extensive use of spreadsheets in the analytical review of client financial data and flowcharts in the documentation of significant applications. The use of SAS as an interrogation tool has generally been confined to IS Audit Specialists, who develop, test and run CAAT programmes under the direction of attest audit supervisors. However responsibility for CAATs is progressively being transferred to operational auditors with support and quality assurance being provided by IS Audit.

Frequently used CAATs

The following is a list of the types of CAATs we have developed to assist our attest auditors. They have for the most part been developed in SAS and libraries of all programs are maintained for future use.

General

- Key item selection
- Re-calculate totals and sub-totals
- Summarise by category/type etc and reconcile to the General Ledger
- Test for unusually large amounts or unusual classifications etc.
- MUS, systematic, stratified, random sampling

Cash Receipts/Disbursements

- Test for missing and duplicate cheque numbers
- Test for duplicate payments

Payroll

- Test for salary changes, ex-gratia payments, overtime etc.
- Test for new employees and terminations

Sales and Debtors

- Test for debtors exceeding their credit limit
- Test for new large volume accounts
- Extract accounts with large overdue amounts
- Check debtors ageing
- Test for missing or duplicate invoice numbers
- Test for unusual discounts etc.
- Sort and summarise by type of account, type of security etc.
- Extract accounts with credit balances

Inventory

- Extract obsolete or slow moving items
- Test for duplicate stock items
- Re-calculate stock values by multiplying unit price by quantity

Fixed Assets

- Re-calculate depreciation
- Extract purchases and disposals
- Test for write-offs and revaluations

General Ledger

- Re-perform/re-calculate Income Statement, Balance Sheet etc.
- Test for unusual and/or large journal entries
- Summarise by output code

Recommendations for better EDP/IT Auditing

Improving Account Balance Verification

The audit approach we have adopted facilitates effective and efficient delivery of high quality services to auditee organisations. It provides a framework so that a consistent process is applied to all audits. The approach encourages flexibility and innovation in order that the most effective and efficient audit approach is developed and applied. This is based on timely Director involvement, professional judgement and audit team input. The approach is a means to an end and not a set of rigid instructions that should be followed without the use of judgement. As such our approach is evolving all the time to ensure it remains effective and efficient in order to satisfy the core audit objectives. Account balance verification procedures therefore are also changing over time.

The key features of our approach are:

- an emphasis on obtaining a thorough, up-to-date understanding of the auditee's business and sector and of its management control environment (including the information system environment). This helps to identify potential areas of risk,
- an account balance and performance measure focus that enables quick identification of significant accounts, significant performance measures and high-risk business activity areas,
- integration of the impact of information systems in recognition of their use in most businesses today by involving Information Systems Audit in the audit planning process a risk assessment process that provides the basis for planning and selection of appropriate audit procedures.

Wider use of CAATs

Greater and more innovative use of CAATs is considered critical to realise audit efficiencies. In organisations that develop enterprise-wide open systems or utilise advanced technology the use of CAATs could be the only way to maintain satisfactory coverage where it is increasingly harder to identify boundaries. As a

result it will become more cost effective to invest in the development of CAAT programs as a means of identifying and assessing risk. It is essential that good documentation is created for all CAATs developed as significant benefit can generally be obtained from their use in subsequent years. Standards need to be developed and observed to ensure CAATs can be used efficiently in the future.

Specialist CAAT development applications such as ACL and IDEA, along with more general interrogation tools such as SAS will be essential. The investment in the development of in-house CAATs applications is not a cost effective or practical alternative as risks such as obsolescence, unwarranted reliance, and ongoing maintenance and support issues are presented. Packaged applications are viewed as the only solution for CAAT development.

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In order to extend the use of CAATs the responsibility for their development needs to be moved from being seen as belonging to IS Audit to being owned by the audit teams themselves. The teams are in the best position to identify potential audit risks and thus areas where the wider use of CAATs could be of assistance. It would be logical for the audit teams to take responsibility for CAAT development as long as appropriate instruction and guidance is provided. IS Audit could then concentrate on providing training and support, quality control, and undertake specialist/complex assignments. IS auditors are limited in their ability to identify where CAATs could be beneficial if they are only seen as an expert resource that is called upon to give assurance in a defined area.

Auditing Information Systems

Rapid change and continuous improvement are daily challenges to all organisations. Advances in technology are having, and will continue to have a significant influence on business activities. In order to react quickly and compete in this dynamic environment, organisations are pursuing comprehensive, flexible systems and processes. Information needs to be freely available and accessible on a timely basis. These issues consequently will have some impact upon audit procedures, particularly in regard to information systems.

Changes to auditee information systems environments will be progressive, so the audit approach adopted will need to be progressively modified to ensure adequate coverage of the risks presented by these changes. The changes in audit approach are likely to be small in nature but occur at regular intervals. One area of the approach that is likely to change is from auditing at a point in time to establishing regular monitoring routines that enable ongoing analysis of key audit objectives and business changes. The use of CAATs could assist the auditor with this continuous auditing approach.