Management Accounting Systems:
Can They Exist in Local Government in Victoria?

by

Louise Kloot

(Serial No.75)

ISBN 0 85590 679 0

This paper should not be quoted or reproduced in whole or in part without the consent of the author, to whom all comments and enquiries should be directed.

© Kloot, L, 1991

Enquiries about the Faculty of Business Staff Papers should be directed to:

Mr B R Clarke
Editor, Staff Papers
Faculty of Business
Swinburne Institute of Technology
PO Box 218
Hawthorn 3122 Victoria
MANAGEMENT ACCOUNTING SYSTEMS: CAN THEY EXIST IN LOCAL GOVERNMENT IN VICTORIA?

Abstract

Management accounting systems are often subservient to financial reporting requirements. The development of a management accounting system requires that objectives of management accounting should be identified. Attributes for a management accounting system which recognise the special characteristics of the public sector, which includes local government, are given. These attributes meet the objectives specified, under the general headings of planning, problem diagnosis and control, and cost analysis.

The regulations prescribed for local government accounting in Victoria work against the development of an appropriate management accounting system.
INTRODUCTION

Management accounting can be defined as the provision of information for the internal management of an organisation for the purposes of facilitating decision making, promoting efficiency and motivating appropriate behaviour and actions (Belkaoui 1980).

The distinction between management accounting and financial accounting is that management accounting produces information for internal decision makers, whilst financial accounting systems are designed to provide information to external decision makers, such as regulators, taxation authorities and shareholders.

In many instances the management accounting system grows from and is subject to the constraints of the financial accounting system. The development of a useful management accounting system will be enhanced if objectives which that system is trying to achieve are specified independently of the financial system.

OBJECTIVES OF A MANAGEMENT ACCOUNTING SYSTEM

Four major objectives of management accounting were identified by the 1972 AAA Committee on Courses in Managerial Accounting. They are:
1) Management accounting should be related to the planning functions of managers.
Planning is the process whereby desired states or goals are identified and activities and resources are marshalled to achieve those goals.
Planning can be seen as having three distinct phases:
- the development of long term goals and objectives
- the development of general strategies to achieve those objectives
- the development of operating plans or budgets, which allows for the determination of resource requirements.
A fourth phase of planning is often specified, that of control, but this will be addressed separately in item 3.

2) Management accounting should be related to organisational problem areas.
The reporting structure should relate to the goals identified in the planning process. The identification of problems in achieving the goals requires the measurement of resource flows and performance and identifying causal factors of any exceptional performance. An effective communication and reporting system is necessary to facilitate the identification of any problems.
3) Management accounting should be related to the management control function. Management control is the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organisation's objectives. (Anthony 1965) Control requires some standard of comparison and some action in regard to that standard. (Euske 1984) The management accounting system should determine appropriate performance levels in relation to the organisation's goals, realistically communicate performance information and highlight performance which is not congruent with those goals.

4) Management accounting should be related to operating systems management by function, product, project or other segmentation of operations. This involves the measurement of relevant costs and revenues and communication of appropriate data to critical personnel on a timely basis.

DESIRABLE ATTRIBUTES OF MANAGEMENT ACCOUNTING SYSTEMS IN LOCAL GOVERNMENT

Management accounting systems in local government should be designed to ensure that they meet both the objectives of any management accounting system and the specific needs of public sector systems.
The public sector can be characterised by:

- The absence of a profit measure
- Service orientation rather than product orientation
- Constraints on goals and strategies
- Low dependence on clients for revenue
- Importance of political influences

(Anthony and Young 1984)

1) PLANNING

Corporate or strategic planning
Before undertaking the preparation of annual operating budgets, long term corporate planning i.e. the specification of long term goals and objectives, and strategies to achieve those objectives, should be a top priority for local government. Corporate planning is essential for many reasons, including:

- The performance of environmental and position audits as a necessary part of the process clarifies the present situation and the likelihood of achieving objectives
- A statement of priorities allows scarce resources to be allocated in a rational manner
- Strategies and operational plans are linked to the overall objectives
- The statement of objectives provides a base against which performance can be measured
- Performance indicators can then be detailed in corporate plans to assess the effectiveness of the local Council
Program budgeting

Program budgeting can be used in local government as part of the process for developing goals, strategies and operating plans. Program budgeting requires the specification not only of goals, strategies and resource requirements, but also of performance measures and indicators to be used in the process of control. A program budgeting system in local government will assist in linking local government objectives and resource requirements with state and federal objectives and funding for those local government items funded through other levels of government. Both state and federal governments use program budgeting.

Operational planning

Operational planning is the detailed plan of the day to day use of resources needed to allow short term objectives to be met. A thorough knowledge of the cost structure of the local government authority is necessary for accurate operational planning. This is discussed below.

A management accounting system which provides for corporate planning and program budgeting, together with accurate cost analysis to allow accurate preparation of operational plans, will satisfy the first objective of relating systems to planning.
2) PROBLEM DIAGNOSIS AND CONTROL

In order to achieve the objectives for management accounting relating to the identification of problems and to the control function, it is necessary to develop measures of performance.

Performance measures

Performance measures must consider both resource utilisation (inputs), known as efficiency measures, and the achievement of objectives (outputs), known as effectiveness measures. Efficiency measures are used to examine whether the actual output, at the level achieved, was achieved at minimum cost. Effectiveness measures are used to determine if the actual output, regardless of its cost, achieved its objectives.

In the private sector, the profit result and the share price are the ultimate measures of performance. Profit measures both efficiency and effectiveness. The public sector has no such single measure.

For local government operations which are commercially based, such as operating a quarry, management performance can be assessed by the profitability of the enterprise. This can be done both in absolute terms and relative to similar commercial operations. The use of standards and variance analysis would be appropriate.
For operations which provide non-revenue services the development of management performance indicators is far more difficult than developing financial indicators. Appropriate indicators must relate actual outcomes with objectives specified for each service and program and with the resources utilised in providing that service or program. Despite substantial research on the types of indicators which should be used in public sector evaluation the delineation of resources used and outcomes achieved remains a difficult task. (Hopwood 1984)

Effectiveness performance indicators must relate to the objectives set in the corporate plan. The objectives for local government may be categorised as relating to infrastructure, planning services, property services, welfare services and administration. Distinct indicators will be required for each category.

Performance indicators could include, for example, those related to:

i) cost, such as cost per kilometre of road constructed

ii) productivity, such as documents processed per employee

iii) quality, measured perhaps by volume of complaints

iv) utility, measured by number of ratepayers using a service

v) revenue, for example collected from the issue of building permits
Items i), ii) and v) relate to the efficiency of the authority. Items iii) and iv) are quasi-effectiveness measures. Measures of effectiveness are much harder to establish than efficiency measures, as they relate to whether program objectives such as "provide for the recreation needs of the elderly" have been met. Measuring the recreation needs and how far services provided meet those needs is extremely difficult.

Budget control reports

A useful method of measuring efficiency is to compare actual inputs with budgeted inputs. To be a valid efficiency measure, the budgeted inputs should be flexed to reflect the inputs which should have been used at the actual output level. Using a flexible budget format requires detailed cost analysis to establish the relative behaviour of costs with respect to volume.

3) COST ANALYSIS

The preparation of detailed operational plans for a local government authority requires a full understanding of the cost structure of the authority and of the true cost of the services which it provides.

Traditional costing systems

Traditional costing systems, including standard costing systems, may be used. Determination of the true cost of services requires that a full accrual accounting system is used. Depreciation is an essential element of accrual
accounting, and it is necessary to include depreciation in developing service costs. It is also essential to accurately allocate overhead to programs and services.

Traditional systems often do not accurately assign overhead costs to the different services that local government provides. Overhead is commonly assigned on the basis of direct labour hours, but some of the overheads are non-volume related and should be assigned on the basis of the activity which causes the costs to be incurred if the proportion of non-volume related costs is large.

When services consume overhead activities in different proportions, it is more accurate to cost each service on the basis of activities and resources consumed, rather than applying the same rates to all services. Local government provides a wide range of non-homogenous services which use different levels of the activities which consume resources.

If both a large proportion of non-volume related overheads and service diversity exist, an appropriate costing system is activity based costing.

Activity Based Costing
An activity based costing system is one which first traces costs to activities and then to products or services (Hansen 1990). Activity based costing uses a
much larger number of cost drivers than the one or two volume based cost drivers typical in a conventional system, resulting in increased accuracy.

Overhead costs are first divided into homogeneous cost pools. A cost per unit of the cost driver is then computed for that pool. The second stage is the tracing of the costs of each overhead pool to services, using the pool rate.

The application of activity based costing requires a thorough analysis and understanding of the cost structure of the organisation and of the elements which drive the costs. The process of analysis can of itself result in cost improvements, as unnecessary costs may be identified and eliminated.

One aspect of activity based costing that makes it attractive is the emphasis on cost improvement. Selection of appropriate cost drivers can result in cost minimisation or elimination as the unit cost per cost driver is reduced in successive periods. (Selection of inappropriate cost drivers can however result in inappropriate behaviours.)

Activity based costing has been applied only in the manufacturing sector at this stage, but it would appear to be feasible to apply it to the provision of services. A full model of activity based costing in local
government accounting is an area for further research, but prima facie activity based costing has the potential to be a very effective cost control device for local government as it should create a climate of continual improvement in cost performance. Another benefit is that identification of suitable cost drivers will assist in tracing costs to program areas more exactly, giving greater accuracy in cost benefit analysis and resource allocation decisions.

The development of an appropriate costing system for local government will assist in achieving all objectives for a management accounting system by developing costs
i) to be used in planning for resource flows
ii) to be used to identify problems
iii) to assist in the specification of performance levels
iv) related to operating systems management

CENTRAL ACCOUNTING REGULATIONS : BARRIERS TO DEVELOPMENT OF GOOD MANAGEMENT ACCOUNTING SYSTEMS

Regulatory agencies such as state governments often impose reporting and other regulations on independent bodies to ensure the efficiency and smooth functioning of those independent bodies where it is felt that those bodies cannot or will not introduce good techniques for themselves. The aim is to ensure that the independent bodies achieve their objectives and provide the services which are part of their charter.
The result of imposed regulations is often the reverse of the desired result. The regulated bodies spend a great deal of their effort on complying with the reporting requirements rather than fulfilling their central functions. The peripheral functions of reporting to the regulators achieve priority over the central functions of achieving the bodies' objectives.

Local governments must comply with regulations and reporting requirements set down by state and federal bodies. At times, these reporting requirements and regulations have the effect of reducing rather than increasing efficiency in local government.

In Victoria, local government accounting practices for reporting purposes are specified by the Municipal Accounting Regulations. These were designed to ensure that local government accounting operations meet acceptable standards of probity, integrity and compliance with the law. They set out the format for financial reports, and are extremely prescriptive. They do not allow for flexibility in financial operations.

Many local governments find that if the regulations are fully complied with, they frustrate attempts to introduce modern management and accounting techniques. For example, there are two pages of regulations relating to the receipt of mail, banking and balancing monies. These
regulations ignore the variations in size and staffing levels between councils and moreover do not even consider the possibility of electronic banking and transfer of funds (EFT). It appears that EFT is probably illegal under the regulations as all payments are required to be made by cheque. The cost and efficiency advantages of EFT are unable to be utilised. Other excessively prescriptive regulations relating to expenditure management and control give rise to widespread inefficiency due to the large amount of labour intensive work required which is not necessarily relevant to the purpose of operations.

The reports which are generated often do not meet any of the objectives of management accounting systems, and do not provide information relevant to the decision making needs of management. Moreover, they are often inadequate even as financial reports.

Local government accounting regulations

The system prescribed in Victoria is known as ‘Modified Accrual Accounting,’ which combines some accrual accounting with cash based accounting. The major differences between this system and accrual accounting are:

- some expenses, such as depreciation, are not recognised in operating statements
- expenditures which benefit future periods, such as
roads and public facilities, are treated as expenses rather than assets
. accrued expenses are not shown
. some accrued revenue may be excluded
. some non-expense items, such as repayments of debt principal, are included as operating expenses
. unrealisable assets are not shown

Asset accounting
Non-current assets other than infrastructure are required to be capitalised and carried at cost less depreciation, where the depreciation charge is not written off to operating expenses but directly to equity. Buildings however cannot be depreciated.

Expenditure on infrastructure is treated as an expense and written off against revenue at the time of acquisition or construction. This is not uncommon for public sector accounting, but it results in distortion in the financial statements and fails to satisfy the basic accounting principle of matching revenues and expenses over an accounting period.

Some of these regulations conflict with good accounting practice. They are inappropriate for any financial reporting, public or private.
Meeting management accounting objectives

Planning

The practice of long term planning is not widespread in local government. There are several reasons given. A common reason given for avoiding long term planning is that local government is subject to an annual election system. It is possible for a new group of councillors to have quite different priorities and policies which are required to be implemented quickly, requiring substantial changes to the goals and objectives of the council.

In the state of Victoria, other reasons relate to current accounting requirements for local government. Firstly, the accounting regulations require that much of the capital expenditure is written off to revenue each year, so that the need for long term plans may not be apparent to all local government authorities.

Secondly, the requirements for annual "estimates" provide for details on a functional rather than program or departmental basis. The estimates are also required to be prepared on a cash basis. Some councils do plan on a program management basis, but they have difficulty in obtaining computer systems which can accommodate dual reports of accounting transactions. Smaller councils in particular do not have the resources to keep two reporting systems, so they comply with the financial
requirements and have management systems which are inadequate.

If long term planning is not carried out, a major objective of management accounting is only partially satisfied.

**Problem diagnosis and control**

**Financial performance indicators**

Basic information on the solvency and financial strength of a council is essential information which is currently not available in any systematic or comprehensive form. The full extent of liabilities may not be shown, or liabilities may be overstated by showing provisions and reserves for future expenditure as liabilities. The nature and extent of all assets may not be shown. Due to the use of a cash based system rather than accrual accounting, costs and revenues are distorted because proper matching of costs and revenues does not occur.

Full accrual accounting would enhance the utility of financial reports. The calculation of some standard ratios such as interest coverage and debt to total assets would assist in comparing the performance of local authorities.
Management performance indicators
Current reporting requirements provide for revenues and expenses to be categorised by function rather than by program or service. For local authorities unable to afford separate management systems, this means that they cannot measure the efficiency of any particular program or service as they are unable to accurately cost it. It is only possible to measure the efficiency of the council as a whole. Such measures mask inefficient services and do not provide sufficient information to determine the best use of resources.

Insufficient information is available to measure effectiveness. The determination of effectiveness measures is very difficult even when information by program and service is available, and almost impossible when reporting requirements do not provide for a useful classification of data.

Budget Control
The current requirements provide for a budget control report. It is required to be a monthly variance statement using a fixed budget format, related to the estimates reporting format of a functional classification. The obvious problems with this requirement are:
i) the use of a fixed budget format can distort the measurement of efficiency. If activity is lower than budget and the budget allowance is not reduced
accordingly, managers can appear to have lower costs when in fact costs have increased.

ii) as described above, the use of a functional format allows only the total performance to be monitored. The budgetary performance of individual programs or services cannot be monitored.

Both state and federal governments, which provide some funding to local government, use program budgeting. The use of functional budgets rather than program budgets is contradictory, in addition to providing poor quality information.

Cost analysis
The modified accrual accounting system as currently specified results in distorted costs. Expenses are both understated and overstated.

Understatement of expenses results from:
  .depreciation is not part of operating expenses
  .infrastructure assets are not recognised and depreciated
  .accrued expenses are not recognised

Overstatement of expenses results from:
  .repayments of debt principal shown as expenses
  .expenditure on infrastructure treated as expense, not as asset
Overheads and direct costs are distorted, resulting in inaccurate service or program costs.

The adoption of full accrual accounting is necessary to ensure that the true costs of local government services are known, to allow compliance with the objectives of management accounting.

PROPOSALS FOR IMPROVEMENT IN MANAGEMENT ACCOUNTING IN LOCAL GOVERNMENT

The recognition by the regulatory bodies that local government authorities are capable of functioning without the excessive prescription of their actions and reporting requirements is a necessary step in the provision of better management accounting systems.

The regulations covering accounting procedures should be removed and replaced with a requirement that local governments should follow accounting standards modified for the special needs of the public sector and specifically for the unique needs of local government. The adoption of accrual accounting and proper accounting for assets, and particularly infrastructure assets, will allow for proper matching of revenues and expenses. The Australian Public Sector Accounting Standards Board has issued a draft accounting standard supporting (i) the application of full accrual accounting to provide users with full information about costs, revenues, resources
and liabilities, and (ii) presentation of an operating statement, a balance sheet, a funds statement and a statement of changes in equity. The adoption of this standard would result in information which can better be used in a management accounting system.

A major research area will be in the presentation and valuation of infrastructure assets. Whilst defining an asset as an expenditure which (i) possesses service potential or other future economic benefit and (ii) possesses a cost or other value which can be measured can overcome problems for new infrastructure assets, the problem with existing assets continues.

The removal of detailed prescriptions for the preparation of estimates, and their replacement with guidelines on the preparation of strategic and operational budgets, including program budgets, would be of immense benefit in creating a useful management accounting system which can be used for budgetary control and cost control. This allows councils the freedom to prepare budgets in the format which would be most useful for them.

It should be recognised that local governments should be responsible for their own financial management and internal control. To achieve this, the regulations governing internal management processes and procedures, banking and finance should be removed and replaced with guidelines for good internal control procedures.
CONCLUSION

Management requires a useful information system to rely on for decision making, planning and management control. This information can be provided by a management accounting system which meets specified objectives. A management accounting system can be designed to accommodate the specific requirements of the public sector, and in particular the local government sector. To achieve this in local government in Victoria requires the replacement of overly prescriptive and inappropriate regulations with guidelines for financial reporting which are compatible with the needs of a management accounting system.

Further research in the areas of valuation of infrastructure assets, performance indicators and the application of activity based costing to the public sector is necessary to produce an accounting system which will satisfy all requirements.
BIBLIOGRAPHY

ANTHONY ROBERT N  "Planning and Control Systems: A Framework for Analysis" Boston, Harvard University 1965
ANTHONY ROBERT N & YOUNG DAVID W  "Management Control in Nonprofit Organisations" Homewood Ill, Richard D Irwin 1984
BELKAOUI AHMED "Conceptual Foundations Of Management Accounting" Reading, Mass, Addison Wesley 1980
HANSEN DON R  "Management Accounting" Boston PWS Kent 1990
HENLEY DOUGLAS; HOLTHAM CLIVE; LIKIERMAN ANDREW & PERRIN JOHN  "Public Sector Accounting and Financial Control" Van Nostrand Reinhold (UK) 1986
HOPWOOD ANTHONY & TOMKINS CYRIL "Issues in Public Sector Accounting" Philip Allan 1984
MUNICIPAL ACCOUNTING AND AUDIT PRACTICES REVIEW COMMITTEE "Review of Municipal Accounting Regulations" Parliament of Victoria 1990
OVERVIEW OF LOCAL GOVERNMENT

Australia has a three tier system of government: Federal, State and Local. Local government is subject to the legislation of the individual states. General principles apply to all local governments, but the current situation as described below relates to the state of Victoria.

Revenue Sources

Local government receives funding from the Federal Government (a fixed percentage of personal income tax collections) and State governments (in the form of grants to assist in the provision of certain services). It has limited taxing power on its own behalf, raising revenues from property rates and from charges for some services. Local government may borrow to provide long lasting facilities, but borrowings are regulated by State legislation and by the need to conform with the requirements of the Australian Loan Council, which regulates all government borrowing. This often restricts both the availability of funds and the terms and conditions of the loans.

Responsibilities

The responsibilities of local government vary widely from state to state. Local governments were created with the major responsibilities of providing commonplace property services like rubbish collection, road construction and repair, local parks and public halls; and property
services are still local government responsibilities in all states to a greater or lesser degree. More recently, welfare services such as home help, meals on wheels and infant welfare centres have been provided. Some states permit local government to provide services such as the ownership of quarries, the supply of milk or the licensing of vehicles, while other states do not.

The complexity of many governmental tasks gives rise to overlap and duplication. Local government services may need to be supplemented by services provided by the state, (for example local roads: local government, main roads: state government) or may be subject to scrutiny by state bodies. There may also be duplication of services provided by both state and local governments.

Size of local government
In the State of Victoria, there are 210 local government authorities with wide diversity in size and services provided. The population per municipality in 1987 varied from 128,000 in Waverly to 670 in Pyalong; the area ranges from 10,795 sq km in Walepup to 4 sq km in Fitzroy and the revenue in 1989 ranged from $737,000 in Lexton to $120,000,000 in Melbourne.
<table>
<thead>
<tr>
<th>No</th>
<th>Year</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1981</td>
<td>'A Note on Customs Unions Theory: The Viner Controversy RIP'</td>
<td>D J Thomas</td>
</tr>
<tr>
<td>8</td>
<td>1981</td>
<td>'Disequilibrium and the Expectations-Augmented Phillips Curve'</td>
<td>Max Grant</td>
</tr>
<tr>
<td>9</td>
<td>1981</td>
<td>'A View of Ideological Pressures in the Context of Managerial Power'</td>
<td>Max Brown</td>
</tr>
<tr>
<td>10</td>
<td>1981</td>
<td>'Short Term Prediction of Student Numbers in the Victorian Secondary Education System'</td>
<td>Miles G Nicholls</td>
</tr>
<tr>
<td>11</td>
<td>1982</td>
<td>'The Legal Protection of Geographical Trade Names: Prognosis for a Case of Champagne'</td>
<td>Bruce Clarke</td>
</tr>
<tr>
<td>12</td>
<td>1984</td>
<td>'Corporate Planning Practice in Major American and Australian Manufacturing Companies'</td>
<td>Noel Capon, Chris Christodoulou, John U Farley and James Hulbert</td>
</tr>
<tr>
<td>13</td>
<td>1984</td>
<td>'A Modified Markovian Direct Control Model in Fixed Time Incorporating a New Objective Function Specification'</td>
<td>Miles G Nicholls</td>
</tr>
<tr>
<td>15</td>
<td>1984</td>
<td>'Big Business in the US and Australia: A Comparative Study'</td>
<td>Noel Capon, Chris Christodoulou, John U Farley and James M Hulbert</td>
</tr>
<tr>
<td>16</td>
<td>1984</td>
<td>'Modelling the Demand for Tertiary Education - An Exploratory Analysis Based on a Modified Human-Capital Approach'</td>
<td>Miles G Nicholls</td>
</tr>
<tr>
<td>17</td>
<td>1984</td>
<td>'Formal Corporate Planning Practices of Major Australian Manufacturing Companies'</td>
<td>Chris Christodoulou</td>
</tr>
<tr>
<td>No</td>
<td>Year</td>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>----</td>
<td>------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>19</td>
<td>1984</td>
<td>'Alternative Job Search and Job Finding Methods: Their Influence on Duration of Job Search and Job Satisfaction'</td>
<td>John B Wielgosz and Susan Carpenter</td>
</tr>
<tr>
<td>20</td>
<td>1985</td>
<td>'A Comprehensive Study of Strategic Planning in Australian Subsidiary and Non-Subsidiary Companies'</td>
<td>Chris Christodoulou and Peter T Fitzroy</td>
</tr>
<tr>
<td>21</td>
<td>1985</td>
<td>'Towards an Optimal Taxation Structure in Australia'</td>
<td>David Thomas</td>
</tr>
<tr>
<td>22</td>
<td>1985</td>
<td>'A Suggested Theoretical Basis for the Interpretation of the Effects of Income on the Demand for Tertiary Education'</td>
<td>Miles G Nicholls</td>
</tr>
<tr>
<td>23</td>
<td>1985</td>
<td>'Austrian Economics and Australian Patents'</td>
<td>Bruce Oakman</td>
</tr>
<tr>
<td>24</td>
<td>1985</td>
<td>'Ensuring a Future for your Organisation'</td>
<td>Chris Christodoulou</td>
</tr>
<tr>
<td>25</td>
<td>1985</td>
<td>'The Long Search: A Pursuit of Organizational Understanding from the Perspective of &quot;System&quot; Thinkers'</td>
<td>Max Brown</td>
</tr>
<tr>
<td>26</td>
<td>1985</td>
<td>'Managing the Introduction of New Technology'</td>
<td>John Newton</td>
</tr>
<tr>
<td>27</td>
<td>1986</td>
<td>'Positive Economic Analysis and the Task of State Enterprise Efficiency and Control'</td>
<td>Patrick Xavier</td>
</tr>
<tr>
<td>28</td>
<td>1986</td>
<td>'Profitability of Horizontal Takeovers in the Australian Industrial Equity Market: 1978 to 1982'</td>
<td>M A Johns and N A Sinclair</td>
</tr>
<tr>
<td>29</td>
<td>1986</td>
<td>'A Comparative Examination of Subsidiary and Non-Subsidiary Strategies'</td>
<td>Chris Christodoulou</td>
</tr>
<tr>
<td>30</td>
<td>1986</td>
<td>'Solving Linearly Constrained Nonlinear Programming Problems'</td>
<td>Fatemeh Ghotb</td>
</tr>
<tr>
<td>31</td>
<td>1986</td>
<td>'An Economic Appraisal of Recent Reforms in Public Enterprise Pricing Policy in Victoria'</td>
<td>Patrick Xavier</td>
</tr>
</tbody>
</table>
No 32 1987 'Australian Manufacturing Companies and Academic Institutions: A Comparative Analysis of Strategic Planning' by Noel H Kelly and Robin N Shaw

No 33 1987 'Centralisation of Information and Exchange with Special Reference to the South Australian Winegrape Industry' by C Hunt, P Tiernan and E Wilson

No 34 1987 'The Impact of Home Office Culture on Subsidiary Strategic Planning' by Chris Christodoulou

No 35 1987 'A Comparison between Guarantees Standby Credits and Performance Bonds' by Ann Johns

No 36 1987 'The Effects of Uncertainty and Incomplete Information in a Foreign Exchange Market Subject to Noisy Rational Expectations by Edgar J Wilson

No 37 1987 'Inflation Accounting for Australian Public Enterprises - Economic Rationale and Financial Implications' by Barry Graham and Patrick Xavier

No 38 1987 'Financial Targets and Dividend Requirements for Commonwealth Government Business Enterprises - Are They Appropriate and How should They be Determined and Measured?' by Barry Graham and Patrick Xavier


No 40 1988 'An Analysis of the Pricing of Section 23 Expert Reports' by Ann Johns

No 41 1988 'Food Laws: Reviewing the Regulatory Framework' by Sandra Edmonds

No 42 1988 'Share Prices and Divestiture' by J Barker

No 43 1988 'Marketing Education in Malaysia: Implications for Australian Tertiary Institutions' by Christopher Selvarajah

No 44 1988 'Forecasting the Demand for Tertiary Education using Econometric and Markovian Models' by Miles G Nicholls
<table>
<thead>
<tr>
<th>No</th>
<th>Year</th>
<th>Title and Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>1988</td>
<td>'Power Pays - An Analysis of the Relationship between Managerial Power and Interdepartmental Relations' by Max Brown</td>
</tr>
<tr>
<td>47</td>
<td>1988</td>
<td>'Peformance Indicators for Telecommunications and Price-Cap Regulation' by Patrick Xavier</td>
</tr>
<tr>
<td>48</td>
<td>1989</td>
<td>'Multinational Enterprises and Host Nation Response' by Christopher Selvarajah</td>
</tr>
<tr>
<td>49</td>
<td>1989</td>
<td>'Women in Management' by Christopher Selvarajah and Stanley Petzall</td>
</tr>
<tr>
<td>50</td>
<td>1989</td>
<td>'The Cultural, Political and Legal Environment of International Business' by Christopher Selvarajah</td>
</tr>
<tr>
<td>51</td>
<td>1989</td>
<td>'Australia's Human Capital and Labour Markets - Their Role in Achieving a More Competitive Economy' by Mirella S De Lorenzo</td>
</tr>
<tr>
<td>52</td>
<td>1989</td>
<td>'A Comparative Analysis of the Strategy and Structure of United States and Australian Corporations' by Noel Capon, Chris Christodoulou, John U Farley and James M Hulbert</td>
</tr>
<tr>
<td>53</td>
<td>1989</td>
<td>'Strategies During Market Transition - A Study of Detergent Marketing in Australia 1930s to 1960s' by David Ch'ng</td>
</tr>
<tr>
<td>54</td>
<td>1989</td>
<td>'Some Legal and Economic Aspects of Third World Debt' by Louise Kloot</td>
</tr>
<tr>
<td>55</td>
<td>1989</td>
<td>'Access to Corporate Documents - Section 265B of The Code' by Stephen Kapouillas</td>
</tr>
<tr>
<td>56</td>
<td>1989</td>
<td>'Minding Everybody’s Business: Performance Indicators for Australia Post' by Patrick Xavier</td>
</tr>
<tr>
<td>57</td>
<td>1989</td>
<td>'Some Legal Aspects of Electronic Funds Transfer' by Louise Kloot</td>
</tr>
<tr>
<td>58</td>
<td>1989</td>
<td>'Japanese Work Ethics' by Christopher T Selvarajah and Stanley Petzall</td>
</tr>
<tr>
<td>No</td>
<td>Year</td>
<td>Title</td>
</tr>
<tr>
<td>----</td>
<td>------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>59</td>
<td>1989</td>
<td>'Strategy, Policy and Operational Planning'</td>
</tr>
<tr>
<td>60</td>
<td>1989</td>
<td>'Technology'</td>
</tr>
<tr>
<td>61</td>
<td>1989</td>
<td>'The Development of a National E F T System Network in Australia'</td>
</tr>
<tr>
<td>62</td>
<td>1989</td>
<td>'International Marketing Research: A Review'</td>
</tr>
<tr>
<td>63</td>
<td>1989</td>
<td>'An Exploration of the Relationship between Training System Effectiveness and the Environmental Variables'</td>
</tr>
<tr>
<td>64</td>
<td>1990</td>
<td>'Interest Rates, Their Changes and the Australian All Ordinaries Index - An Empirical Result (with some theoretical justification)'</td>
</tr>
<tr>
<td>65</td>
<td>1990</td>
<td>'Current Monetary Policy : A Review of Recent Literature'</td>
</tr>
<tr>
<td>66</td>
<td>1990</td>
<td>'Performance Indicators for Public Telecommunications Operators : Will They Serve to Improve Performance?'</td>
</tr>
<tr>
<td>67</td>
<td>1990</td>
<td>'Mosaic mac-b: A Comprehensive Framework for Marketing Planning'</td>
</tr>
<tr>
<td>68</td>
<td>1990</td>
<td>'The Death of the Reasonable Man'</td>
</tr>
<tr>
<td>No</td>
<td>Year</td>
<td>Title</td>
</tr>
<tr>
<td>-----</td>
<td>------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>69</td>
<td>1990</td>
<td>'The Implications of the Development of a National EFT System Network in Australia'</td>
</tr>
<tr>
<td>71</td>
<td>1990</td>
<td>'Training System Effectiveness'</td>
</tr>
<tr>
<td>72</td>
<td>1990</td>
<td>'Relationship of Size of Organisation to Training System Effectiveness'</td>
</tr>
<tr>
<td>73</td>
<td>1990</td>
<td>'The Relationship of the Structural Variable, Industry Type, to Training System Performance Criteria'</td>
</tr>
<tr>
<td>74</td>
<td>1991</td>
<td>'Preliminary Study of Export Success in the Australian Scientific Instruments Industry'</td>
</tr>
<tr>
<td>75</td>
<td>1991</td>
<td>'Management Accounting Systems: Can They Exist in Local Government in Victoria?'</td>
</tr>
</tbody>
</table>