

**SEGMENTAL REPORTING  
DISCLOSURES IN SOUTH AFRICA:  
REQUIREMENTS VERSUS NEEDS**

A DISSERTATION PRESENTED TO  
THE DEPARTMENT OF ACCOUNTING  
UNIVERSITY OF CAPE TOWN

IN FULFILMENT OF THE REQUIREMENTS FOR  
THE MASTER OF COMMERCE DEGREE

by

CHRISTOPHER DAVID HEMUS

15 FEBRUARY 1991

The University of Cape Town has been given  
the right to reproduce this work in whole  
or in part. Copyright reserved by the author.

The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

PREFACE

I would like to thank my supervisor, Professor Geoff Everingham, for his invaluable support and encouragement to me during both the research and the writing up of this report. His commitment to the supervisory role is greatly appreciated, as are his many helpful comments and suggestions.

I would also like to thank others that assisted me in different ways:

- the various people that gave up their time for interviews;
- those that assisted in the field testing of the questionnaires;
- members of my family who assisted with both the postal questionnaires and the printing of this report;
- my wife for her encouragement and support.

Thanks also should go to the Public Accountants' and Auditors' Board and the universities for supporting the academic articles scheme, without which I might never have completed a research dissertation of this nature.

I certify that, except as noted above, this report is my own work and it has not been submitted as a dissertation for a degree of another university.

Signed by candidate

CD HEMUS

Signature removed

## SYNOPSIS

Segmental reporting (breaking down information in financial statements between different business activities and different geographical areas) is mandatory for certain companies in South Africa in terms of the disclosure requirements of AC 115. Such requirements are similar to those contained in other international accounting statements and include the disclosure of turnover, total assets, and operating profit for each industry and geographical segment within which a company operates.

The users of financial statements need segmental information to assess the risk, profitability and return of a company, especially when various components of the company differ significantly in rates of growth, profitability and risk.

This study investigates users' needs for segmental information and relates these needs to the requirements of AC 115. More specifically, the following objectives are addressed:

- undertake a literature search on segmental reporting;
- investigate the difficulties encountered by preparers of financial statements in presenting segmental information;
- determine the segmental information needs of users and the extent to which they make use of such information;
- investigate users' and preparers' opinions about the content of, the adequacy of, and the extent of compliance with AC 115;

- determine users' preferences for industry versus geographical segmental disclosures and for audited versus unaudited segmental disclosures.

A questionnaire approach was used to gather data for the research study. Two questionnaires were developed - a "Preparer's Questionnaire" that was sent to the financial directors of the Financial Mail Top 100 companies, and a "User's Questionnaire" that was sent to 100 investment analysts randomly chosen from the Investment Analysts' Society membership list.

The conclusions of the research study indicate that:

- the difficulties encountered in preparing segmental information are overcome by preparers for internal reporting purposes. Users are aware of these difficulties and the extent to which subjective and judgemental decisions are taken by preparers in order to overcome the difficulties;
- users make use of segmental information whenever it is provided and their needs, in general, are satisfied by the disclosure requirements of AC 115;
- both users and preparers acknowledge that there is only partial compliance with AC 115;
- users prefer segmental information on an industry basis to a geographic basis and are indifferent as to whether segmental information is audited or not.

Certain amendments to AC 115 are recommended to ensure better compliance.

**TABLE OF CONTENTS****Page****CHAPTER ONE: SEGMENTAL REPORTING - AN INTRODUCTION**

1.1	BACKGROUND TO SEGMENTAL REPORTING	1
1.2	STATEMENT OF THE PROBLEM	3
1.3	CAVEATS TO THE RESEARCH STUDY	5
1.4	RESEARCH HYPOTHESES	6
1.5	TERMINOLOGY	8
1.6	REPORT STRUCTURE	8

**CHAPTER TWO: LITERATURE SEARCH**

2.1	INTRODUCTION	10
2.2	HISTORICAL DEVELOPMENT OF OFFICIAL PRONOUNCEMENTS	10
2.2.1	United States	10
2.2.2	United Kingdom	12
2.2.3	International	13
2.2.4	South Africa	14
2.3	SEMINAL WRITINGS	14
2.3.1	Financial Reporting by Diversified Companies	14
2.3.2	Informational Content of Segmental Information	19
2.3.3	Extent of Disclosure of Segmental Information	31
2.3.4	Difficulties in the Provision of Segmental Information	41
2.4	CONCLUSION	47

**TABLE OF CONTENTS (continued)****Page****CHAPTER THREE: RESEARCH METHODOLOGY**

3.1	INTRODUCTION	48
3.2	QUESTIONNAIRE DEVELOPMENT	49
3.2.1	Purpose of the questionnaires	49
3.2.2	The Respondents	50
3.2.3	Questionnaire Formulation	52
3.2.4	Mailing of Questionnaires	54
3.4	ANALYSIS AND INTERPRETATION	54
3.4.1	Test for Non-Response Bias	55
3.4.2	Test for Larger Company Bias	57
3.5	CONCLUSION	58

**CHAPTER FOUR: PREPARERS - ANALYSIS OF SURVEY RESULTS**

4.1	INTRODUCTION	59
4.2	THE PREPARERS - GENERAL INFORMATION	59
4.2.1	Respondents' Characteristics	59
4.2.2	Disclosure Practice	60
4.3	THE PREPARERS - SPECIFIC PROBLEMS/ISSUES	66
4.3.1	Segment Identification	66
4.3.2	Segment Operating Profit	72
4.3.3	Segment Turnover	76
4.3.4	Segment Assets	78

**TABLE OF CONTENTS (continued)**Page

4.4	THE PREPARERS - VIEWS ON AC 115	80
4.4.1	AC 115 Compliance	80
4.4.2	Segmental Reporting - Opinions	81
4.5	CONCLUSION	86

**CHAPTER FIVE: USERS - ANALYSIS OF SURVEY RESULTS**

5.1	INTRODUCTION	87
5.2	THE USERS - INFORMATION NEEDS	87
5.2.1	Types of Information Required	87
5.2.2	Sources of Information	92
5.3	THE USERS - OPINIONS ON SEGMENTAL INFORMATION	93
5.4	THE USERS - SEGMENTAL DISCLOSURE DIFFICULTIES	98
5.5	THE USERS - OPINIONS ON GEOGRAPHICAL DISCLOSURES	102
5.6	THE USERS - AUDITED SEGMENTAL INFORMATION OR NOT	103
5.7	THE USERS - SPECIFIC DISCLOSURE ITEMS	105
5.8	CONCLUSION	108

**CHAPTER SIX: ATTEMPT AT A RECONCILIATION: USERS AND PREPARERS**

6.1	INTRODUCTION	109
6.2	DISCLOSURE DIFFICULTIES	109
6.3	"SERIOUSLY PREJUDICIAL" CONCERNS	111
6.4	AC 115 CONCERNS	114
6.4.1	Compliance with AC 115	115
6.4.2	Adequacy of AC 115	115

<u>TABLE OF CONTENTS (continued)</u>		<u>Page</u>
6.5	GEOGRAPHICAL DISCLOSURES	116
6.6	AUDITED DISCLOSURES	120
6.7	EXTENDED DISCLOSURES	121
6.8	CONCLUSION	122
 <b>CHAPTER SEVEN: CONCLUSION</b>		
7.1	THE RESEARCH STUDY	123
7.2	THE RESEARCH HYPOTHESES	124
7.3	SCOPE FOR FUTURE RESEARCH	126
7.4	CONCLUSION	128
	 BIBLIOGRAPHY	 129
	 APPENDIX A - ACCOUNTING STATEMENTS ON SEGMENTAL REPORTING	 141
	 APPENDIX B - AC 115	 145
	 APPENDIX C - THE PREPARERS' QUESTIONNAIRE	 153
	 APPENDIX D - THE USERS' QUESTIONNAIRE	 162
	 APPENDIX E - THE PREPARERS' COVERING LETTER	 170
	 APPENDIX F - THE USERS' COVERING LETTER	 171
	 APPENDIX G - THE REMINDER LETTER	 172

LIST OF TABLES

<u>Table Number</u>	<u>Title</u>	<u>Page</u>
Table 1	Industry Segment Disclosure	60
Table 2	Geographic Segment Disclosure	62
Table 3	Respondents' Annual Reports	63
Table 4	Disclosure Location	64
Table 5	Basis for Segmentation	67
Table 6	Internal Reporting - Segmental Information	69
Table 7	Interpretation of Internal Reporting	71
Table 8	Basis for Cost of Goods Sold	72
Table 9	Extent of Expense Allocation	74
Table 10	Misleading to Allocate?	75
Table 11	Inter-Segment Sales	76
Table 12	Inter-Segment Transfer Prices	77
Table 13	Extent of Balance Sheet Allocation	78
Table 14	Extent of Compliance with AC 115	80
Table 15	Opinions on AC 115	81
Table 16	Ease of Compliance with AC 115	81
Table 17	AC 115 - Seriously Prejudicial?	82
Table 18	Segmental Information - Useful to Users?	84
Table 19	Segmental Information - Attitudes	84
Table 20	Ranking of Investment Characteristics	88
Table 21	Ranking of Sources of Information	92

**LIST OF TABLES (continued)**

<u>Table Number</u>	<u>Title</u>	<u>Page</u>
Table 22	Segmental Information - Usage	94
Table 23	AC 115 Requirements - Sufficient?	94
Table 24	AC 115 - Opinion on Compliance	95
Table 25	Segmental Disclosures - Prejudiced Competitively?	96
Table 26	"Seriously Prejudicial" - Management Decision?	96
Table 27	Materiality of Inter-Segment Sales	98
Table 28	Allocation of Common Costs	99
Table 29	Defined Income?	100
Table 30	Industry versus Geographic Segmentation	102
Table 31	Geographic Basis for Segmentation	103
Table 32	Respondents' Segmental Information - Audited?	104
Table 33	Segmental versus Consolidated Information	105
Table 34	Ranking of Disclosures - Industry	106
Table 35	Ranking of Disclosures - Geographic	106
Table 36	Allocations by Preparers	107

## CHAPTER ONE

### SEGMENTAL REPORTING

#### 1.1 BACKGROUND TO SEGMENTAL REPORTING

Accounting has developed far beyond the original system of recording envisaged by Pacioli in 1494. It has followed the development of business enterprises from the sole-trading merchants to modern day multinational conglomerates.

These conglomerates have their origin in the formation of companies that were created primarily to achieve limited liability. Companies were formed to operate within a single sector of the economy and with a defined objective. The importance of a company having a defined objective was highlighted by what became known as the Ultra Vires Doctrine. The doctrine essentially declared any transaction that fell outside the stated objective (and hence capacity) of a company void. As companies developed in size and complexity, so their objectives clause was extended to include all manner of transactions, thereby avoiding the ambit of the Ultra Vires Doctrine. Companies were able, therefore, to diversify without fear of a transaction being declared void. The demise of the Ultra Vires Doctrine gained statutory ratification in South Africa with the enactment of Section 33 of the Companies Act, 1973 which effectively allows companies to have multiple ancillary objectives to their main objective. Today, therefore, companies no longer operate with one specific objective and the trend is towards companies operating in numerous sectors of the economy with different objectives and within large groups of companies.

Accounting evolved and responded to the diversification and growth in structure and complexity of the companies and groups of companies by requiring consolidated accounts - that is financial statements of the ultimate holding company combined with the results of operations and the assets and liabilities of the subsidiary companies within the group.

Consolidated accounts aggregate the information of all the companies within a group. Such aggregation is useful in assessing the performance and prospects of the group as a whole but is of little use in trying to judge the worth of parts of the whole. Consolidated accounts are similar to a summary of, say, football results: at the end of the season all teams in a league have played the same number of games and are ranked in terms of points awarded for a win or a draw. From this summarised information, however, it is not possible to assess a team's strengths and weaknesses nor its record of victory and defeat. In the same way, groups of companies report results for the same period of time (a year) and can be ranked by, say, net income earned. However, it is often not possible to evaluate the individual companies and segments of the group that operate in different sectors of the economy. Poor results from one part of the group may be set off against good results from another part without the information being disclosed in the consolidated accounts. The usefulness of the information presented is impaired by aggregation.

Accounting standard setting bodies internationally have responded to the need for a breakdown of groups' results (refer Appendix A) and have issued statements on what has become known as segmental reporting. The difficulties perceived in the allocation of costs and expenses to segments, and the determination of the extent to which assets attach to a particular segment was a major obstacle

in the development of these statements. A South African statement (AC 115) on segmental reporting (Appendix B) was issued in 1986 and is applicable to all companies whose financial years started on or after 1 July 1986. The statement requires a limited breakdown of turnover, results and segment assets employed in both industrial sectors and geographical areas.

A more detailed examination of the historical development of segmental reporting, together with the difficulties encountered in providing segmental information is considered in chapter two.

## 1.2 STATEMENT OF THE PROBLEM

Although standard setters have responded to the segmental reporting issue with the release of various accounting standards, it is not clear whether these requirements meet the needs of users. Returning to the above analogy: if an end of season league table was further analysed into, say, the number of "home" and "away" wins (and losses) it would then add value (in terms of information) to the users of such tables. The average person may well be satisfied with that level of disaggregation. However, some users may find an analysis of, say, the number of goals scored in the first half of a game versus the number of goals scored in the second half of a game useful. Still others may require information about the goal per corner ratio. The extent of information disclosed is driven by the users' needs.

In disclosure of financial information, the disaggregation can be taken to extremes similar to those identified in the league table analogy. Disclosure can vary from summary financial statements

(currently allowed in the United Kingdom) setting out no more than a summary balance sheet and income statement to an extreme of the Events Approach (1) to accounting where users may have access to a data base of all transactions.

The accounting pronouncements on segmental reporting reach a compromise between limited disaggregation and complete disaggregation. The South African statement (AC 115) is similar to other national and international (IAS) statements (refer Appendix A) and appears, therefore, to have been drafted not on the basis of empirical research in South Africa, but on the basis of the content of other national statements. In addition, the South African statement allows non-disclosure of segmental information if such disclosure is regarded as "seriously prejudicial" to the interests of the company. Such an "escape clause" is found only in one other national statement (SSAP 25 in the United Kingdom) and allows companies considerable latitude in the disclosure or otherwise of segmental reporting - without regard to users' needs.

The problem identified is, therefore, that segmental reporting requirements were enacted without a detailed consideration of users' needs in the South African context. This research study attempts to assess users' needs within the broad context of segmental reporting in South Africa and in so doing conclude on the adequacy or otherwise of AC 115.

(1) - Refer Belkaoui (1985 : p80) for further discussion on the Events Approach to accounting.

### 1.3 CAVEATS TO THE RESEARCH STUDY

The scope for research within the broad context of segmental reporting is extensive and no research study of this nature can hope to address every aspect of segmental reporting. For this reason, a number of caveats to the research are stated here:

- a) Segmental data is assumed to have informational content for the purposes of this study. This implies that the information is of value to the users of financial statements; that is, segmental information is useful and desirable to users. This implies more than just users' wants for segmental information - the mere fact that users want certain information does not mean it is of value. It is noted that the literature is not unanimous as to whether segmental data has informational content (refer to chapter two for a more detailed analysis of the literature). After weighing up all the factors, however, segmental information appears to have informational content and this is accepted by the various standard setters worldwide.
- b) The study includes research on listed companies only. As such, any conclusions made about the preparers of financial statements should be linked to listed companies only.
- c) This study is undertaken and the empirical data is collected within the broader context of publicly available information in respect of segmental reporting. It is assumed that segmental information available to users is publicly published information and does not include information that might be construed as insider-information.

#### 1.4 RESEARCH HYPOTHESES

The research problem (stated above) results in a number of research objectives which give rise to research hypotheses. The objectives of the research study are to:

- undertake a literature search in order to trace the historical background to segmental reporting and the development of the various segmental reporting issues that have arisen;
- investigate some of the difficulties encountered by the preparers of financial statements in presenting segmental information and to determine whether or not users of financial statements are aware of these inherent difficulties;
- determine the extent to which users make use of segmental information and the type of information they require on a segmental basis;
- investigate users' and preparers' opinions as to the adequacy of AC 115.
- investigate the extent of compliance with AC 115 (as well as the perceived (by users) extent of compliance) by the preparers of financial statements;
- determine the users' opinions on the preparers' use of the "seriously prejudicial" clause contained in AC 115;

- investigate the importance of geographical segmental disclosures to users and the basis on which they prefer a geographical analysis to be determined;
- determine users' opinions as to whether segmental information should be audited.

Two postal questionnaires were utilised for data collection purposes in order to meet these objectives.

The following are the research hypotheses:

- H1 Users use and desire segmental information.
- H2 Preparers of financial statements are reluctant to provide segmental information.
- H3 Practical difficulties in preparing segmental information are overcome by preparers for internal reporting purposes.
- H4 Users are aware of the subjectivity involved when preparing segmental information.
- H5 Users have an equal need for segmental information on an industry basis and a geographical basis.
- H6 Users are indifferent as to whether segmental information is audited or not.
- H7 Users would use and value as much segmental information as can be practicably presented.

H8 Users regard AC 115 in its present form as inadequate.

H9 Preparers of financial statements do not comply fully with AC 115.

## 1.5 TERMINOLOGY

Certain terminology is used throughout this study which requires some clarification. The words segmental reporting, segmental information, segmental data, line of business reporting and divisional analysis are all synonymous for the purposes of this study.

Preparers of financial statements is a collective term denoting the providers of financial information - which in the case of a company, are the directors.

Users of financial statements is a collective term for the persons or groups of persons who make use of financial statements. In this study, investment analysts were chosen to represent the general user body and the terms users and investment analysts should be regarded as synonymous within the limitations noted in chapter three.

## 1.6 REPORT STRUCTURE

The report is contained in the next six chapters:

- In chapter two the results of the literature search are outlined.

- In chapter three the research methodology is set out.
- In chapters four and five the responses to the preparers' questionnaire and the users' questionnaire respectively are analysed.
- In chapter six the results of the research study are reported.
- In chapter seven the conclusion is set out.
- Appendix A sets out an analysis of various accounting statements on segmental reporting and Appendix B contains a copy of AC 115. Appendices C to G are concerned with the questionnaires and related documents.

The two questionnaires used, together with a summary of the responses, are shown in Appendix C and D. Where the responses to individual questions are discussed in the text of the report, they have been tabulated. These tables have been numbered and are referred to when drawing conclusions. For ease of reference, a list of tables together with the title and the corresponding page number is given on pages (viii) and (ix).

## CHAPTER TWO

### 2.1 INTRODUCTION

This chapter briefly traces the development of segmental reporting - in particular, focusing on the development of official pronouncements and seminal writings on segmental reporting.

### 2.2 HISTORICAL DEVELOPMENT OF OFFICIAL PRONOUNCEMENTS

#### 2.2.1 United States

In September 1964, the sub-committee on Antitrust and Monopoly of the Senate Committee began hearings on "Mergers and other Factors Affecting Industry Concentration". During the hearings, an academic (Dirlam) suggested disclosure of the "relative profitability of different divisions and product lines as essential to the investor and antitrust authorities alike" (Rappaport and Lerner (1969 : p45)). This comment was put to the Securities and Exchange Commission who, in 1966, requested that a study be done by the American Institute of Certified Public Accountants. This study reported in September 1967 that "disclosure of financial data relating to separable industry activities of a diversified company has not been considered essential for fair presentation" (Rappaport and Lerner : p47). However, this position would be reconsidered after further research. The Financial Executives Institute in the United States offered to finance and conduct an extensive study on the desirability and feasibility of financial reporting by diversified companies. This study was undertaken by a team of researchers led

by RK Mautz and is considered in more detail at a later stage (section 2.3.1) in this chapter.

In April of 1968, the National Association of Accountants had published a research study - "External Reporting for Segments of a Business" - conducted by Morton Backer and Walter B McFarland. This was followed by further studies - "A Framework for Reporting by Diversified Companies" (1969) and "Segment Reporting for Managers and Investors" (1972), both conducted by Alfred Rappaport and Eugene Lerner.

In response to these seminal research studies, the Securities and Exchange Commission, from August 1969, required registrants to disclose sales and earnings by line of business. This was followed by proposals in 1974 to extend this requirement to disclosure in the annual reports of companies.

In September 1975, the Financial Accounting Standards Board, in response to pressure from, inter alia, the Securities and Exchange Commission, issued an exposure draft on "Financial Reporting for Segments of a Business Enterprise". This led to the issue of Statement of Financial Accounting Standards No 14, by the same name in December 1976. This statement was adjusted by the issue of three further statements in 1977/78 - Numbers 18, 21 and 24 which amended the requirements of Standard No 14 to exclude interim reports and non-public enterprises. A further amending standard SFAS 30 was issued in August 1979 and requires disclosure of certain information about major customers.

### 2.2.2 The United Kingdom

Section 20 of the Companies Act 1967 required the directors of UK companies to state the value of goods exported during the year. All companies were also required by sections 16 and 17 of the Companies Act 1967 to include in the directors' report an indication of the principal activities of the company and its subsidiaries and an analysis of turnover and profit or loss before taxation between substantially different classes of business. In addition, the London Stock Exchange in August 1966 laid down requirements that listed companies provide a geographic analysis of turnover and contribution to trading results. The Stock Exchange requirements have not changed significantly since first being promulgated. In contrast, however, the Companies Act 1981 extended the requirements of the Companies Act 1967 to include disclosure of turnover by export market and called for disclosure to be made in the notes to the accounts rather than in the directors' report. These requirements have been consolidated into the Companies Act 1985 and, more recently, the Companies Act 1989. The provisions are set out in paragraph 55 of schedule 4. Of particular relevance is paragraph 55(5) which states that "where, in the opinion of the directors, the disclosure of any information required by paragraph 55 would be seriously prejudicial to the interests of the company, that information need not be disclosed but the fact that any such information has not been disclosed must be stated". As discussed in chapter one, the South African accounting statement, AC 115 contains a similar provision - indicating that the South African Institute of Chartered Accountants took cognisance of this UK "escape route". A similar paragraph has been included in the new statement "Segmental Reporting" (SSAP 25) issued in July 1990.

SSAP 25 expands on the requirements of the Companies Act to include the following requirements:

- turnover by geographic source;
- the amount of inter-segment trade and the basis of transfer prices employed;
- the amount of common costs apportioned to segments;
- the amount of capital employed at each segment;
- the recognition of associated companies as a separately identified segment for which financial data will need to be disclosed.

### 2.2.3 International

The International Accounting Standards Committee addressed the segmental reporting issue with the release of Exposure Draft 15 in late 1979, closely followed by the release of International Accounting Standard 14 - "Reporting Financial information by Segment" in August 1981. This standard became operative in January 1983 and the requirements are similar to the requirements of the United States and South African statements.

Both Canada (1979) and Australia (1984) have issued accounting standards on segmental reporting that are similar to the South African statement. One noticeable difference between the North American statements and the rest of the world is that the former require the disclosure of capital expenditure and depreciation for each segment reported.

#### 2.2.4 South Africa

Paragraph 61(a) of schedule 4 to the South African Companies Act 1973 requires a description of the nature of the business of the company and its subsidiaries. In addition, any major change (ie. since the previous year) in the nature of the business and the subsidiaries should be stated. This remained the only requirement for segmental reporting in South Africa (excluding the requirements of the international statement IAS 14) until the release of ED 48 in 1984. This was closely followed by the release of AC 115 in 1986 which addressed the definition of a segment asset (not found in ED 48). As previously stated, the South African Statement contains an "escape route" clause similar to that found in the UK statement - SSAP 25. This clause is not found in any other statements. Further analysis of the various accounting standards is contained in Appendix A and a copy of AC 115 is included in Appendix B.

### 2.3 SEMINAL WRITINGS

#### 2.3.1 Financial Reporting By Diversified Companies

Segmental reporting has been debated since the early 1960's; largely because of the emergence and growth, especially in the United States, of the multinational conglomerate business enterprise. As noted in chapter one, as enterprises become more involved in a large number of distinct products, industries or markets, users of the financial statements found it increasingly difficult to analyse the effect of different segments' results on past and future performance. Pressure grew, therefore, from users (notably investment analysts) in the 1960's for disclosures of

segmental information. The pioneering study to determine both users' requirements and companies' attitudes on the segmental reporting issue was commissioned by the Financial Executive Institute. The study was chaired by RK Mautz (1968).

Mautz began his study with an examination of what constituted an enterprise as "conglomerate" or "multinational". He identified the need for users to assess the risk and return relationship of an enterprise. Enterprises operating in industries or geographical markets with significantly different risk and return relationships were therefore likely to be "conglomerate" or 'multinational". Mautz produced a useful definition that has become common terminology in accounting literature of the "diversified company"; namely:

"a company which either is so managerially decentralised, so lacks operational integration, or has such diversified markets that it may experience rates of profitability, degrees of risk, and opportunities for growth which vary within the company to such an extent that an investor requires information about these variations in order to make informed decisions" (Mautz : p47).

This conceptual definition laid the foundation for Mautz's work which was to establish "whether (or not) diversified companies should be expected to report financial operating information on a less than total company basis in their published financial statements" (Mautz : p7). In order to achieve this, Mautz investigated the "usefulness, practicality and desirability of corporate disclosure ..... on some basis more detailed than total company figures" (Mautz : p161) by two surveys, of diversified companies and financial analysts.

- the only useful and practicable basis for identifying a diversified company is activity in different industries;
- sales, net income and assets invested are satisfactory bases for determining the point at which a segment of a company should be reported separately, while sales is the most reliable and simplest measure to apply;
- both surveys indicated an acknowledgement that common costs are of significance and that allocation of common costs gives rise to the possibility of misinterpretation.

These conclusions, inter alia, were submitted (together with five key recommendations) to the Financial Executives Institute and had a bearing on the contents of the Accounting Statement - SFAS 14 - issued in December 1976.

A concurrent study, under the auspices of the National Association of Accountants obtained similar conclusions. The study, headed by Backer and McFarland (1968), considered "(1) defining segments which are significant to suppliers of capital and (2) what kinds of segment financial information can best serve these users' purposes" (Backer and McFarland : p1). Using the hypothesis that information needs of investors and creditors can be identified by studying how they make decisions, interviews were held with financial analysts and commercial bankers. In addition, interviews were held with company executives in order to obtain their reaction to the users' needs.

The study reached some important conclusions, the more pertinent of which are set out below:

- investors and creditors have an important need for sales and operating results of major segments - particularly for those segments which are affected differently by economic conditions, which have differing rates of profitability and which make material contributions to company sales and earnings;
- analysts realise that inter-company segmental profitability comparisons are not always meaningful;
- management can best define segments and no standard classification of segments for reporting produces meaningful results;
- in cases of material common costs and revenue, segment contribution margins are the most reliable and useful measures of segment profitability;
- ) company executives had little objection to disclosing segment sales, but expressed opposition to the disclosure of segment profit;
- investor confidence in segmental information would be improved if the information was covered by the auditors' opinion.

A further study by the National Association of Accountants sought to develop a framework for reporting by diversified companies.

This study (published in September 1969), undertaken by Rappaport and Lerner, attempted to develop a reporting framework for a particular group of users of financial statements - the investors. By reviewing investor valuation frameworks, formats of a segment earnings statement and a source and application of funds statement were developed. The study emphasised the need for disclosures by segments that are determined by reference to "basic activities". These are "activities that generate both revenues and expense streams ..... (and) ..... can be structured by either product or market" (Rappaport and Lerner : p4). Although the study produced a useful and relevant framework, it has become somewhat outdated as a result of further developments in investor valuation models since 1969.

The issue of segmental reporting has been addressed by other accounting academics and writers. These writings can be broken down into three broad categories: the informational content of segmental information, the extent of disclosure of segmental information, and difficulties encountered in the provision of segmental information (including segment identification problems).

### 2.3.2 Informational Content of Segmental Information

The phrase "informational content of segmental information" encompasses the idea that the provision of any data is of no use unless it has "information content" - ie. unless the data is actually informative to the user and hence has value, it is irrelevant. The decision of the Securities and Exchange Commission in 1969 to require the disclosure of sales and earnings by lines of business provided the ideal opportunity for researchers to determine whether or not the provision of such information was of value to users of financial statements.

The pioneering study in the area was done by Kinney in 1971. Kinney selected companies that provided both "sub-entity" (ie. segmented) data and entity (ie. not segmented) data in order to "test the relative predictive power of sub-entity earnings data for companies which voluntarily reported sales and earnings data by sub-entity" (Kinney : p127).

Kinney's study was essentially exploratory as he used a small number of companies and only two reporting periods. However, his results enabled him to conclude that "predictions based on segment sales and earnings data and industry predictions were on the average more accurate than predictions based on models using consolidated performance data alone" (Kinney : p136).

The results, however, did cast doubt on the predictive ability of segmented earnings in that income forecasts based jointly on segmented sales and segmented margins did not outperform forecasts based jointly on segmented sales and consolidated margins.

Collins (1976) extended the work of Kinney to include a broader class of forecast model and to include companies that had not voluntarily disclosed segmental information prior to the line of business disclosure requirements (Kinney had used segmental data voluntarily disclosed in published annual reports and cautioned that the voluntary disclosures might give rise to some characteristics peculiar to those reporting firms only).

The results of the study were positive in that they indicated that product line data together with industry sales projections provided "significantly more accurate estimates of future total

entity sales and earnings than ..... consolidated data" (Collins : p175). In other words, there were benefits from disaggregation. However, as with Kinney's (1971) study, there was evidence that segmented profitability information was not particularly useful, given the existence of segmented sales information. This was corroborated by Silhan (1982) who used simulated mergers of existing autonomous entities as the basis for his research. Using this approach, "it was possible to circumvent problems of inter-segment transfers, common costs, and the like" (Silhan : p261). These studies supported the results of Barefield's (1972) laboratory study on the effect of aggregation on decision making success. Barefield focused on the ability of a decision maker (ie. a user) to use accounting reports having equal degrees of information content but different degrees of aggregation. He found that "subjects receiving disaggregated data performed slightly better than subjects receiving aggregated data" (Barefield : p241).

Kinney's conclusion was used as the basis for a hypothesis of Kochanek's research in 1974. Kochanek set out to show that "investors with segment data are better able to predict future earnings ..... of the firm" and that "security price fluctuations of the firm are dampened by the provision of segment data" (Kochanek : p246). The latter hypothesis was based on the premise that inadequate disclosure in annual reports widens fluctuations in share prices because investments are based on less informed and objective measures. Using correlation models and a variability model, the study investigated the market reaction to the published annual reports of thirty seven companies. The results of the study suggested that the provision of segmental information facilitated the predictions of future earnings as investors were aided in "anticipating future earnings changes in the present

valuation of securities" (Kochanek : p256). In addition, the results showed that share price variability was less for those companies disclosing segmental information than those not providing such information. Kochanek noted, however, that the "quality of a firm's stock in terms of the historical growth and stability of earnings and dividends was a more important factor in explaining price fluctuations" (Kochanek : p258).

The validity of Kochanek's study did not go unquestioned - Barefield and Comiskey (1975) in their comment in the Accounting Review on Kochanek's study, criticised the lack of control against group characteristics that may affect stock market reactions. They introduced further controls and performed the same test as Kochanek. The results were similar but weaker, and therefore not as conclusive. They also commented on Kochanek's other conclusion and felt that although "the hypothesised relationship between segmental disclosure and earnings forecastability has considerable intuitive appeal" (Barefield and Comiskey : p821), it was not a proven fact.

In the UK, a study similar to the studies done by Kinney (1971) and Collins (1976) was performed by Emmanuel and Pick (1980). This study examined whether or not segmental disclosure improves the ability to forecast sales and profit. More specifically, the paper set out to "test the hypothesis that industrial segment sales and profit disclosure, together with industry sales projections published in various government and economic institutional sources, provide significantly more accurate estimates of future total entity sales and earnings than do those procedures that rely totally on consolidated data" (Emmanuel and Pick : p201).

The comparison was performed between a predictive model with segmental information and the same model without segmental information. The results corroborated those of the United States: "Studies in the USA suggest that segmental disclosure of sales and profit data is useful in providing more accurate predictions of corporate earnings. The present study using UK data confirms this view and indicates that segment revenue information should be disclosed as a minimum requirement" (Emmanuel and Pick : p215).

In April 1975, Ortman tackled the problem from a different perspective - he used a field experiment to "determine the effects on investment analysis of the presence of segmental data in financial statements" (Ortman (1975) : p298).

Using a sample of Chartered Financial Analysts, Ortman provided each analyst with financial statements of two companies (one half of the group of analysts - the experimental group - received financial statements that included segmental data for both companies, while the other half - the control group - received no segmental data) and asked them to determine a pre-listing prospectus share price for each company. This price was chosen as the subjects would be forced to provide maximum reliance on the financial statements, ie. they would not have access to other market inputted information. Ortman found distinctive differences between the two groups of analysts' valuations. For example, the experimental group were unanimous in their selection of the better company. In contrast, eighty one percent of the control group (with no segmental data available to them) selected the opposite company (to the experimental group's choice) as the better company. Ortman concluded, therefore, that the provision of segmental information significantly reversed the evaluation of the

diversified firms presented to the analysts for valuation (Ortman : p304). In addition, as the experimental group showed a smaller variance with regard to distribution of share valuations calculated than the control group, Ortman suggested that "segmental disclosure by ..... firms could result in greater stability in the movement of the prices of ..... firm's stocks" (Ortman : p304). He concluded his study by suggesting that the evidence collected by him strongly supported the provision of segmental information in annual reports.

In 1979, Collins and Simonds examined the relationship between the introduction of the Security and Exchange Commission's line of business disclosures and market risk adjustments. They found that "firms with minimal or no prior segmental disclosure did experience substantive changes in relative risk" (Collins and Simonds : p380) during the period in which the Security and Exchange Commission requirements became mandatory. They concluded that the disclosures gave rise to a lower risk because of a "negative portfolio - level beta shift" (Collins and Simonds : p380). Their conclusion, therefore, indicated that segmental information has informational content.

A number of studies noted above (eg. Kinney (1971), Collins (1976)) considered the predictive ability of segmental financial disclosures in specific situations and not under general conditions or situations. An interesting study (Hopwood, Newbold and Silhan (1982)) published in the Journal of Accounting Research, attempted to "determine what general conditions are necessary for disaggregation to result in improved forecasts" (Hopwood et al : p724). By deriving the conditions under which disaggregated earnings gave rise to gains in predicting annual

earnings before extraordinary items and discontinued operations (the latter two being excluded because of their unpredictable nature), the studies concluded:

"No segmentation gains in forecast accuracy will occur if:

- the time series models of the component segments are identical; and
- none of the component series either leads or lags the consolidated series" (Hopwood et al : p731).

Whilst these conclusions, at first glance, might appear intuitive - or even obvious - their significance is of importance and should not be overlooked. By identifying the general conditions under which segmented information improves forecasting accuracy, a model is created. This model can then be used as an assumption in further studies and can help to identify situation - specific variables. Hopwood et al sound a warning about their conclusion, however, in pointing out that while under certain conditions segmented information may be no more useful than consolidated information in predicting future profitability, the segmented information may still be of value. Indeed, it could be "useful for other purposes, such as the assessment of risks" (Hopwood et al : p731). This is a valid point raised by Hopwood et al and corroborates the findings of Ortman about the value of segmental information, ie. that for diversified firms, the provision of segmental information is of use in assessing the risk of the firm as a whole and should be of use in predicting future profitability - as long as the above two conditions are not present.

An interesting factor which dominated these early studies on forecasting predictability was their normative nature - ie. the focus on whether "users should be able to improve predictive accuracy by assessing segmented data" (Baldwin (1984) : p377). In most of these studies, no attempt was made to assess actual user forecasts (although Ortman's (1975) study used actual forecasts, his test used an experimental environment and not a "live" environment).

As such, Baldwin (1984), writing in the Accounting Review, questions whether the "conceptual benefit from segment reporting has been translated to empirical reality" (Baldwin : p378) by these studies. He notes that although an unpublished study by Barefield and Comiskey investigated the "comparative accuracy of actual user projections before and after segment reporting" (Baldwin : p378), their study was not conclusive.

In his study, Baldwin evaluated the decisions of investment analysts both before and after implementation of the Securities and Exchange Commission's line of business disclosure requirements. Baldwin justified his choice of actual users as analysts with several reasons, notably:

- the group's decision (ie. the analysts) or predictions are public record;
- documented evidence in the literature that investment analysts regard segmental information as useful; (ie. refer Mautz (1968) : Rappaport and Lerner (1969); Backer and McFarland (1968)).

- studies by the Financial Analysts Federation indicating that analysts definitely made use of the newly available segmental information after the proclamation of the line of business disclosure requirements.

In fact, the results of the Financial Analysts Federation's studies were distinctly supportive of segmental information disclosures: they found that most of the analysts used segmental information in their work, two thirds commented that their earnings projections were in some cases improved by the availability of segmental information, and more than two thirds indicated that investment appraisal of a company was changed significantly by the provision of segmental information.

Baldwin tested the null hypothesis that reporting of segmental earnings data had no effect on the ability of investment analysts to make forecasts of future earnings. Using an experimental group of firms that prior to 1971 did not voluntarily disclose segmental earnings and two control groups - the one consisting of companies that prior to 1971 had voluntarily disclosed segmental earnings and the other consisting of single segment companies, Baldwin compared the variances of forecast errors made by investment analysts for the three groups both before and after 1971.

The primary conclusion of his study was "that, for multi-segment firms, security analysts were able to make more accurate earnings projections after segment reporting was adopted in 1970" (Baldwin : p387). This is a significant conclusion in that the study was based on actual forecasts and was, therefore, not normative in nature. A detailed analysis of the results shows, however, that the forecast error of all three groups of companies decreased

after the provision of segmental earnings (ie. after 1970) and that the decreases were only significant for forecasts over the first three quarters and not fourth quarter forecasts. This indicates that the provision of segmental earnings data impacts on shorter term forecasts. Although the forecast error decreased for all three groups, the most significant change (and hence the basis of Baldwin's conclusion) was for the experimental group - ie. the multi-segment firms without prior segment disclosures.

Although Baldwin's conclusion was of significance it did not close the debate on the informational content of segmental data. The results of studies on the subject were inconsistent (1) and inconclusive. In the light of this, Garrod and Emmanuel (1988) adopted yet another approach to testing the predictive ability of segmental data. Using turnover as the basis of their study, they tested the predictive ability of four models on four different categories of companies. The models used were:

- Segmental - consolidated turnover prediction based on an industry growth model applied to the individual industry segment turnovers;
- Strict Martingale - consolidated turnover prediction based on the immediate past year's consolidated turnover;
- Gross National Product (GNP) adjusted - consolidated turnover prediction based on a gross national product growth model applied to the consolidated turnover;

(1) - Collins (1975) and Gonedes (1974) examine these inconsistencies in more detail.

- Major Industry - consolidated turnover prediction based on a growth model applied, to consolidated turnover with the major industry forecast.

All four models also included an inflation adjustment.

The four categories of companies were used because "it seems unrealistic to assume that the surprise value of disaggregated data which will lead to expectation revision will be constant over all reporting companies" (Garrod and Emmanuel : p135). This is a useful observation first raised by Barnea and Lakonishok (1980), who argued that the predictive usefulness of segmental data is inversely related to the correlation co-efficient of inter-segment results, ie. if the correlation co-efficient is low then the business activities are sufficiently diverse to approach the activities of the economy in general and the usefulness of segmental data is limited (a somewhat crude "portfolio theory"). The opposite applies when the inter-segment correlation co-efficient is high. Simply using inter-segment correlation co-efficients did not, however, take into account "the degree to which one business activity dominates all others" (Garrod and Emmanuel " p136). In order to correct this, the following four categories of companies were selected:

- fully diversified companies;
- dominant industry segment companies whose results follow general economic trends;
- dominant industry segment companies whose results do not follow general economic trends;
- partially diversified companies.

The companies were placed in categories according to their regression co-efficients against both their industry and the economy as a whole. Having established both these categories and the four prediction models, the study tested the predictive ability of segmental data (ie. turnover) against company profiles (ie. companies with differing degrees of diversification). The findings confirmed that the "information content of disaggregated data varies with the diversification profile of the companies" (Garrod and Emmanuel : p143). The detail of their findings is interesting - for instance, for companies in the fully diversified category, the superior predictive model was the GNP model while for the two dominant industry segment models, the segmental model was, in general, superior. The partially diversified category indicated that predictions using the segmental model are inferior to either the Strict Martingale or GNP models. The implications of these results are obvious: accounting standards on segmental reporting should distinguish between categories of companies when laying down requirements regarding the extent of disclosure, and the provision of segmental data by fully diversified companies gives no improvement in predictive ability.

Whilst these implications are far reaching, it is important to bear in mind that the study used four prediction models that are essentially time-series models. As such, the models (in particular, the segmental model) exclude information of a more qualitative nature that might be industry (or segment) specific. Essentially, the study is also normative in choice of categories and allocation thereto, but otherwise descriptive in nature and lacks, therefore, the empirical strengths of, say, the Baldwin (1984) study. Nevertheless, the Garrod and Emmanuel study raises interesting issues concerning the present status of accounting

standards and was timeously published as the Accounting Standards Committee in the UK were poised to release a statement on segmental reporting.

A study not dependant on time-series models, but rather actual analysts' forecasts was the Brown (1983) study. This study investigated the relationship between accounting principle changes and the ability of analysts to project the earnings numbers of companies. The results suggested "that financial statement users could benefit from additional disclosures including pro-forma adjustments, when firms change their accounting principles" (Brown : p443). This has implications for segmental reporting in that changes in accounting principles provide possible difficulties for analysts when making forecasts and for that reason, further disclosures should be given. Therefore, where a company first provides segmented data, the provision of such data requires sufficient information as to the basis of selection of segments and the reliance upon and future prospects of each segment - particularly those that neither recently nor presently have/are changing in nature and composition. For this reason, it is useful if a company can provide prior year figures when providing segmental data for the first time. This will also assist in establishing a trend as soon as possible.

### 2.3.3 Extent of Disclosure of Segmental Information

A number of surveys have been done to determine the extent of segmental disclosures. Such surveys are useful not only in determining the extent of compliance with the various accounting standards, but also in assessing the impact of other factors on disclosure practices. For example, the managerial environment in a

particular country may facilitate the provision of segmental information. This would be particularly true of first versus third world countries - Companies operating in a first world environment are more likely to have sophisticated information systems at their disposal than their third world counterparts. As such, they are able to extract segmental information more easily than companies operating in a third world environment. Also, Barret (1976) showed that the extent of overall disclosures does tend to be correlated with equity market efficiency.

A number of national accounting bodies/institutes also monitor the extent of compliance with their standards - one of these is the South African Institute of Chartered Accountants. In a 1988 survey in South Africa, the following extent of disclosure was established:

	<u>Percentages</u>		
	<u>Given</u>	<u>Not Given</u>	<u>Not Applicable</u>
<u>Industry segments:</u>			
Turnover	50	40	10
Segment result	51	39	10
Segment assets	37	53	10
<u>Geographic segments:</u>			
Turnover	3	19	78
Segment result	3	19	78
Segment assets	2	20	78

SAICA (1988 : p193 - 4)

Apart from the surveys testing compliance with accounting standards, a number of other studies have been done. An early study (Gray (1978)) determined, inter alia, the extent of segmental disclosures by multinational companies within the

European Economic Community (EEC). The study was done shortly after SFAS 14 was issued and the primary objective was to determine "whether there is a case for a more comprehensive set of rules such as those ..... prevailing in the United States" (Gray : p243).

The survey sample included the 100 largest multinational companies in the EEC and all of the companies operated in at least two countries. The initial results were encouraging: some 95 percent of the companies provided segmental data of some kind. Further analysis revealed, however, that the majority of companies provided a turnover analysis only. There was also some difference between the countries within the EEC as to the extent of segmental disclosure. For example, the United Kingdom provided a significantly higher extent of profit analysis disclosure than the other EEC countries. This finding gave further support to Barret's (1976) tentative conclusions, as well as opening the way for further EEC disclosure research. With 1992 looming and the concurrent lifting of trade barriers, there is considerable scope for further research into the extent of segmental disclosures in the EEC, as well as the need for uniformity in segmental disclosure.

An early survey in Australia by Miller and Scott (1980) identified that nearly two thirds of the companies surveyed provided no voluntary segmental disclosures. This study was prior to the release of AAS 16 "Financial Reporting by Segments" and the only statutory segmental disclosure requirement was in terms of the Companies Act. The disclosure required by the Companies Act was a description of the principal activities and "the contribution to net consolidated profit by group member corporations" (Miller and Scott : p33). The emphasis was, therefore, on legal entity, and

not line of business. Based on the poor segmental disclosures surveyed, the study concluded by emphasising the need for the Australian Accounting Research Foundation to address the issue.

By early 1985, the Australian Accounting Research Foundation had addressed the issue and Carnegie, Davies and Gavens (1986) ascertained the extent of disclosure after the release of AAS 16 "Financial Reporting by Segments". The results of their survey were not encouraging: 42,4% of the companies surveyed gave no segmental disclosure, while 27,7% complied fully with the segmental disclosure required by AAS 16. The balance of the survey either claimed that disclosure was not in their best interest (3,6%) or gave disclosures but not in full compliance with AAS 16 (26,3%). The lack of compliance with AAS 16 led to the Australian Accounting Standards Review Board (ASRB) releasing ASRB 1005 "Financial Reporting by Segments" in 1986. The release of this standard was as a result of the dual accounting standard system in operation in Australia. Essentially, the ASRB adopts the AAS series statements as ASRB standards, and in doing so gives the original AAS requirements a statutory backing. In Australia, in order to comply with the Companies Act, the ASRB standards must be adhered to.

A further survey (after the release of ASRB 1005) was conducted by Gavens and Carnegie (1988). This study surveyed the same companies as the previous study (Carnegie, Davies and Gavens (1986)) twelve months later. A significant improvement in segmental disclosures had occurred and some 61% of the companies surveyed now complied fully with AAS 16 and ASRB 1005. Of particular interest, is that of the 58 companies that disclosed no segmental information in the year of the first survey (1985), 29 now complied fully with the segmental disclosure requirements of

the standards. Interesting, too, was that "from the five companies which claimed in 1985 that compliance with AAS 16 was "not in their best interests", three complied fully in 1986 and two of these even provided 1985 comparatives!" (Gavens and Carnegie : p31).

The extent to which the issue of ASRB 1005 influenced companies to provide segmental disclosure is not clear. It is useful to note that non compliance with ASRB accounting standards carried greater potential penalties than non compliance with AAS 16. Undoubtedly, the release of ASRB 1005 had some influence on the significant improvement in compliance.

A survey of compliance with SFAS 14 in the United States was conducted by Steedle (1983). The study determined that "while firms are complying with the letter of SFAS 14, compliance with its spirit is uneven. The most apparent unevenness is in providing sufficient information for an understanding of what comprises an individual industry or geographic segment". The compliance in the United States with SFAS 14 versus the relative non-compliance with similar statements in other countries is indicative of a number of possible factors:

- the more directive and voluminous United States statement;
- the strength of the FASB.

This is, however, an area for further research and beyond the scope of this paper.

A recent survey was completed by Emmanuel and Rennie (1990) to assess the extent of voluntary disclosure of SSAP 25 requirements prior to the requirements becoming mandatory.

The extent of disclosure is not encouraging:

<u>Consistent with SSAP 25</u>	<u>%age of UK companies disclosing</u>
Turnover by geographic segment at source	33
Extent of inter-segment sales	16
Basis of transfer pricing	4
Apportionment of common costs	8
Capital employed	20
Information about associate companies	4

The results prompted the following comment by the authors:

"If this group of companies can be regarded as typical, the introduction of the standard suggests that "normal" disclosure practice will need to change significantly. Despite the reduction in disclosure requirements witnessed by the progress of the consultative paper through to SSAP 25, it is nevertheless true that large British companies will be required to disclose additional data. Whether compliance will be achieved is a moot point" (Emmanuel and Rennie : p39).

There is a surprising lack of interest shown in the accounting literature towards the disclosure of geographic segmental information. Although the official accounting bodies' pronouncements call for geographic segmental disclosure, and users would appear to find such disclosure both useful and desirable (Parker (1988)), little attention/controversy surrounds the issue. It is apparent that users find industry segmental disclosure more useful than geographic (refer chapter five) and are, therefore likely to require better disclosure of the former. If better

compliance with the industry segment disclosure aspects of the various statements is achieved, more attention may then be focused on the geographic disclosure.

Two geographic segment disclosure papers appear in the International Journal of Accounting Education and Research (Fall 1980). One paper (Arnold, Holder and Mann) examines the international reporting aspects of segmental disclosure while the other (Bavishi and Wyman) questions whether the foreign operations disclosures by United States multinationals are adequate.

Prior to the issue of SFAS 14, the only requirement (in the US) for disclosure of foreign activities was contained in an Accounting Research Bulletin (ARB 43) that required the "aggregate volume of foreign activity be disclosed" (Arnold et al : p125). In formulating SFAS 14, therefore, the FASB was afforded an ideal opportunity either to prescribe the basis of geographic segmentation precisely or to allow management discretion in choosing geographic segments. The FASB decided on the latter option and Arnold et al (1980) attempted to investigate the level of disaggregation (geographic) that exists in practice in order to establish whether it is consistent with the expectations of the FASB when formulating the standard.

The paper empirically investigated the form 10-k report (filed with the SEC) disclosures of 200 of the Fortune 500 companies in 1978. The purpose was to investigate the diversities that exist in practice with regard to the disaggregation of data on a

geographic basis. The study developed a frequency distribution for comparing the relative popularity of each geographic level:

	<u>Foreign Operations</u> <u>%age of disclosures</u>	<u>Export Sales</u> <u>%age of disclosures</u>
Country	17,6	9,0
Subcontinent	15,2	11,9
Continent	19,6	10,4
Global	12,8	49,3
Other	25,2	9,0
Unique	9,6	10,4

(Arnold, Holder and Mann : p134)

This data shows that for the companies disclosing foreign operations, approximately 33% of all disclosures were either by country or subcontinent. That is, approximately 33% of all disclosures were disaggregated to at least the subcontinent level. In the case of providing disclosure of export sales, however, only approximately 21% of disclosures were by country or subcontinent - thereby illustrating a tendency towards less disaggregation of the export sales figure.

The paper shows, therefore, a tendency not to disclose foreign activities at the subcontinent or country level and the authors surmise that this is below the expectations of the FASB when formulating the statement and consider it appropriate for the FASB to reconsider the foreign activity sections of SFAS 14. This view was supported by Parker (1988) who maintains that analysts

complain "..... that geographic areas identification is left to management's discretion even though geographic borders are much more clearly defined than industry borders" (Parker : p32).

The second paper appearing in the International Journal of Accounting Education and Research (Bavishi and Wyman (1980)) also concluded that there was room for improvement in SFAS 14. Specific possible improvements were listed to both SFAS 14 and to the pronouncements of other international bodies. The basis for the suggestions was the research conducted on the 1978 annual reports of the United States Fortune 500 companies.

A particular aspect investigated was that of transfer pricing. When a company has intra-group sales or transfers between geographic areas, the basis of accounting for these should be disclosed in terms of SFAS 14. Bavishi and Wyman (p160) found that market price was the most popular basis for transfer pricing - 35% of the sample used the market price as the transfer price. Of interest is that some 30% of the entire sample did not give details of their transfer pricing basis and on an industry basis, 41% of the pharmaceutical companies in the sample gave no disclosure of their transfer pricing policy used.

Some companies gave voluntary disclosures in excess of those required - an example being the disclosure of capital expenditure (14% of the sample disclosed this figure) by foreign operation. Although SFAS 14 requires disclosure of capital expenditure by industry segment, it is not a requirement for geographic segmental disclosures. The extent of voluntary disclosures (see further: Bavishi and Wyman : p163) indicate a potential expansion of the SFAS 14 disclosure requirements. Among the improvements to SFAS 14 suggested by the authors are:

- a specific method of defining geographic area should be formulated;
- transfer pricing disclosures should be more specific - for example, is cost determined by absorption or direct costing?;
- industry and geographic segmental disclosures should be integrated ie. presented in one combined matrix.

In a later paper, Gray and Radebaugh (1984) investigated "1) the extent of geographic information provided in practice in the US and UK, and 2) the significant differences in the nature and content of disclosures between countries both in terms of voluntary disclosures and those required by accounting standards" (Gray and Radebaugh : p352). The paper studied the extent of disclosure in a survey of 58 US and 35 UK companies.

Without comparing in depth the US and UK requirements for segmental disclosures (addressed in Appendix A), it is useful to examine their findings. The survey was drawn from the Fortune 500 list of US and non US industrials and showed that US firms "exhibited a greater extent of disclosure for all items (sales, intra-group sales, profits, assets, investment, employees) except for employees" (Gray and Radebaugh : p352). The differences were statistically significant with the exception of sales and new investment.

An analysis of the extent of disaggregation shows that the average number of geographic segments disclosed by US companies is less than UK firms. This shows that "US firms disclose significantly fewer geographic segments than do UK firms, and that there is a general tendency toward a high level of aggregation with segments

often identified on a multinational basis" (Gray and Radebaugh : p359). The authors surmise that US companies are compensating for the greater extent of information disclosure required in respect of other areas of segmental disclosures by identifying less geographic segments. Undoubtedly, however there are other factors involved and this is an area deserving of further attention and research - especially in the light of the UK release of SSAP 25.

#### 2.3.4 Difficulties in the Provision of Segmental Information

Difficulties in the provision of segmental information include the identification of segments, transfer pricing and the allocation of common costs and assets.

The segment identification issue has been dominated by papers written and researched by CR Emmanuel and, initially, SJ Gray. More recently, NW Garrod has assisted CR Emmanuel.

The fundamental issue in segmental reporting according to Emmanuel et al is to determine what constitutes a reportable sub-entity, or segment. An initial study by Emmanuel and Gray (1977) attempted to show that, although a high percentage of the 1976 top 100 companies (78%) were providing segmental disclosure, the quality of these disclosures was at times questionable. The study questioned whether present disclosures accurately reflected "the scope of the business and international operations of the individual company" (Emmanuel and Gray : p50). Based on analyses of the consistency of disclosures with supplementary disclosures about the company's organisation (for example, the directors' report) and with the UK Standard Industrial Classification, the study concluded that difficulty in identifying separate classes of business and international operations appeared to exist.

The lack of guidance by official pronouncements with regard to identifying segments gave rise to a range of disclosure practices. As such "arguments about the reliability, objectivity and verifiability of specific financial information disclosed for segments of a company are largely redundant if those segments are identified on a haphazard basis" (Emmanuel and Gray (1977) : p50).

This study laid the foundation for Emmanuel's future studies, for having thrown down the gauntlet by identifying the problem, he provided a variety of solutions to the problem. The first followed scarcely six months later when Emmanuel and Gray (1978) proposed the identification of segments by using both organisation structure and the Standard Industrial Classification.

They argued that it was not good enough to identify a segment on a product line basis only. For example, if a division in a company was producing concrete bricks and bedroom slippers, it should not necessarily be split into two reportable segments. Rather, attention should be paid to the management structure in addition to the product line. That is, if the company's management structure is such that the same management team is responsible for both products within the division, then to present the division as two segments "implies that user needs can be satisfied without regard to the way in which the company is managed" (Emmanuel and Gray (1978) : p171). This view was supported by Lurie (1980) who stated that in developing segments for reporting purposes, "consideration must be given to the existing management information system, its use by the company, and its effectiveness (Lurie : p43). While this may be so, it should not be viewed in isolation. For example, in the extreme situation of a division producing both concrete bricks and bedroom slippers, users may well regard the division as two segments - notwithstanding

management's treatment of the division - on the basis that the risks attached to each product are different. As the main purpose of providing segmental information is to enable users to better assess the risks attached to an entity as a whole, they might well need different information to management - whose role is a stewardship one. As such, it is dangerous to place too much emphasis on management structure when determining segments.

A number of factors may influence the management structure decision. For example, the products concerned may have the same demand elasticity. Alternatively the products may share production facilities or one product may so dominate the other so as to render the distinction superficial. For these reasons, the study recommended the use of the Standard Industrial Classification index together with the management structure. The following specific criteria were developed by their model (all of which had to apply in order to constitute a reportable segment):

- over 50 percent of its physical sales volume is sold externally;
- revenue and profitability information is accumulated regularly for this unit;
- responsibility for the unit's operating performance resides with the immediate manager of the unit" (Emmanuel and Gray (1978) : p174).

In this manner, the conditions of a profit centre are, in effect, applied to the organisation units when determining reportable segments. The study extended the model to show it in operation determining the reportable segments of a diversified company with

two primary divisions : a paper and packaging division and an engineering division.

The major shortcoming of the proposed model (and acknowledged in Emmanuel and Garrod (1987)) was that the Standard Industrial Classification is intended to apply to single-entity establishments and not to complex corporate structures. As such, the classifications are in some categories relatively homogeneous while others include a wide variety of activities. The 1987 study, therefore, suggested an alternative.

In the 1987 study, the basic premise of management structure being of importance was retained. In support, the authors quoted Solomons at length: "(if) the best that management can produce to guide their own decisions (are their internal accounts), then there is an initial presumption that the same statements, or less detailed versions of them, are likely best to serve the investor in making his investment and disinvestment decisions" (Emmanuel and Garrod : p239). The authors developed various matrices for disclosure of segmental information while retaining an emphasis on management structure (both geographic and product/industry orientation). Interviews with both users and preparers indicated a general acceptance of such an approach but the users questioned the extent of consistency throughout the report. Often the matrix of segmental disclosure included a different structure to the information contained within, say, the Chairman's Report. This is an area deserving of some further empirical research before more definite conclusions can be made.

In moulding together both the users' and preparers' views, the authors noted that any accounting standard should be flexible, consistent (over time and with other information) and be

practicably feasible. In short, a happy medium is required between excessive managerial discretion and over rigid guidelines. An ideal for which every standard setter strives!

Emmanuel and Garrod (1985) presented proposed matrix form disclosures based on discussions held with both users and preparers of financial statements. The format of the matrix depended on whether the management structure recognised either geographic responsibilities or product/industry responsibilities initially. It is interesting to note that their method, albeit perhaps obvious, has been adopted by a number of companies worldwide. In South Africa, Barlows Ltd presents segmental data in a matrix format. They also provide some information of a "qualitative or descriptive" (Emmanuel and Garrod : p16) nature which is generally worthwhile.

It is clear that Emmanuel, Gray and Garrod made a contribution to the segment identification problem. Indeed, they not only highlighted the issues, but conducted empirical research into finding a way "to identify reported segments which are both flexible, to reflect the reality of diverse methods of operating, and meaningful, to ensure consistency with other available information about the company's activities" (Emmanuel and Garrod : p16). The UK Accounting Standards Committee had an opportunity to recognise those research conclusions when recently formulating an accounting statement. Although a matrix format was required by ED 45 in the UK, the requirement has been dropped by the statement SSAP 25 released in July 1990. The segment identification problem has not been addressed by the new statement. A comment by Emmanuel and Rennie on the statement:

"Of course, if companies wanted to avoid the spirit of the standard they can quite legally invoke the "seriously prejudicial" clause ..... and not disclose any segment data. Perhaps of even greater practical value, company directors are still able to decide how to identify reportable segments, making them as large, or covering as large a geographical area, as they wish. On this aspect the standard offers little concrete advice or guidance. The exact degree of real and apparent compliance will only become known in future years" (Emmanuel and Rennie : p40).

The transfer pricing and allocation of common costs/assets issues are essentially management accounting problems and not issues specific to segmental reporting for external users. The theory of management accounting and related issues is extensively covered by management accounting text books and was addressed in early studies on segmental reporting. (1) A detailed study of the theory behind these issues is beyond the scope of this research study. However, a recent study by Sannella (1986) is worth noting.

Sannella investigated whether or not a company's decision to allocate common costs to segments was related to that company's income strategy. He found that "companies that allocate common costs may be influenced by the same economic factors as companies following an overall income reducing strategy" (Sannella : p288). As such, the decision as to whether or not common costs are allocated is influenced by company characteristics and economic factors, and is not based on a particular theory. The conclusions,

(1) - refer Rappaport and Lerner (1969), Backer and McFarland (1968) and Rappaport and Lerner (1972) for more detailed consideration of these issues.

therefore, support positive accounting theory (1) and provide a wide scope for further research in the application of a positive theory for the treatment of segmental information.

#### 2.4 CONCLUSION

This chapter has outlined a brief historical background to segmental reporting and has highlighted some of the more pertinent issues that have been addressed by the literature. The remainder of this study investigates further some of these issues, and concludes on other pertinent issues surrounding segmental reporting in South Africa.

(1) - Refer Watts and Zimmerman (1978) for a detailed treatise on Positive Accounting Theory.

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

#### 3.1 INTRODUCTION

The scope and objectives of this study are detailed in chapter one. In order to gather data to meet these objectives, it was decided that a questionnaire would be used for the collection of data.

A questionnaire does not necessarily supply as much detailed information as an interview.

For example, interviews invariably reveal detailed information about the attitudes and opinions of the respondents. In addition, nuances and lines of thought in an interview can be pursued because of the inherent flexibility of the approach. However, such flexibility was not a requirement of the study's objectives and the questionnaire approach was selected for the following reasons:

- a large number of respondents could be surveyed by a postal questionnaire. Time and cost constraints would preclude similarly large numbers of respondents being interviewed;
- the information required for the study is essentially of a factual nature. A questionnaire approach facilitates the collection of factual (as opposed to opinion type) information;

- the information required could be structured into a questionnaire format. As such, interviews were not necessary.

## 3.2 QUESTIONNAIRE DEVELOPMENT

### 3.2.1 Purpose of the Questionnaires

Two questionnaires were developed. Firstly, a "Preparer's Questionnaire" (PQ) was designed to obtain factual data about the corporate viewpoint on segmental reporting and secondly a "User's Questionnaire" (UQ) was designed to obtain factual data on segmental reporting from the users of financial statements. Where possible, the two questionnaires were designed to complement each other to obtain relevant and balanced information.

The purpose in developing the PQ was to obtain from companies:

- the extent of their disclosure of segmental information;
- the extent of internal reporting on a segmental (or divisional) basis;
- information about difficulties experienced in segment identification and reporting;
- their views on the adequacy or otherwise of AC 115;
- the extent to which they regard segmental information as useful to external users.

The purpose in developing the UQ was to obtain from external users:

- the type of information used for investment evaluation purposes;
- their views on the adequacy or otherwise of AC 115;
- the kind of information required for diversified company analysis and their opinion as to whether such information should be audited;
- an assessment of their understanding as to the difficulties encountered in providing segmental disclosures;
- their views on the extent of present compliance with AC 115.

### 3.2.2 The Respondents

Investment analysts were selected as the group to represent external users for a number of reasons. The most important factor was that investment analysts, being more sophisticated users, are among those best able to use operating data on a less than total consolidated basis. If those who are best able to use segmental information are provided with what they need then it follows that:

"others with lesser need and less ability to utilise information would also have made available to them at least as much as they can profitably use for their analytical purposes." (Mautz : p98)

In other words, in meeting the disclosure requirements of the sophisticated user, one is likely to at least meet the requirements of the less sophisticated user. An exception might be that group of users who are the company's creditors. This group may require a different emphasis of segmental information to the investment analyst - particularly if considering either continuing trading or advancing further loans. This study addressed this potential difference by ensuring that bankers (representative of the creditor group of users) were included in the population of investment analysts. However, it would be inappropriate to generalise the results obtained in this study across all groups of users and this limitation is noted here.

Another factor important in the selection of the investment analysts as representative of users was the responsibility for formulating investment decisions placed on them by virtue of their skills. That is, other groups of users rely on their assessments of potential investment decisions and their analyses of the strengths and weaknesses of a company.

The sample (100) of investment analysts was drawn, using a random number table, from the Investment Analysts' Society membership list. A review of the sample revealed that it included a broad spectrum of investment analyst users: bankers, stockbrokers, financial journalists, individuals, merchant bankers, fund managers and investment consultants. The Investment Analysts' Society address list contained approximately 570 names - a random sample of 100 is, therefore, representative of the population.

The financial directors of the Financial Mail Top 100 companies were selected as the group to represent the preparers of financial

statements. This group was selected on the basis that only non-mining companies should be included in the sample (mining companies are excluded from the requirements of AC 115 and are excluded from the Top 100 selection) and that the larger diversified companies are more representative of those companies bound by the requirements of AC 115. The Financial Mail Top 100 is selected according to ranking by asset values. No attempt was made to exclude single segment companies from the sample as the objective of the study was not only to get information about the companies themselves, but also information from the preparers of information - whether or not they are actually supplying segmental information at present.

The selection of such a sample introduces a bias towards the views of the preparers of financial information of larger companies at the expense of the views of the preparers of the smaller companies' financial information. However, the benefit of obtaining information from the more diversified companies and the preparers of information thereof, is likely to outweigh the opportunity cost of not having obtained information from the (relatively) smaller preparers. Also, an attempt is made later in this chapter to analyse the effects of such bias by examining the difference between information obtained from respondents from the top 30 companies and the respondents from the remaining 70 companies.

### 3.2.3 Questionnaire Formulation

Draft questionnaires were formulated with reference to the research objectives and past research (Mautz (1968), Mizra (1978), Steedle (1983) and Miller and Scott (1980)). Various interviews were held with members of both the preparer and user group to assist with the drafting of the questionnaires. These interviews

also provided guidance as to the potential level of knowledge of the actual respondents (at this stage, future respondents) and the type of response likely to be made. For example, it became apparent that investment analysts, as users of financial information, when asked whether they wanted further information, would almost certainly answer in the affirmative. This emphasised the need for ranking the relative importance of different kinds and sources of information in the answers given in the UQ.

Final draft questionnaires were field tested among academics, chartered accountants in public practice and in industry, accountants in industry, financial journalists and investment analysts. In total, 12 questionnaires (six of each) were field tested.

During this testing, respondents were asked to complete the questionnaire as it was and to record the length of time it took to complete the questionnaire.

The completed questionnaires were not analysed in detail as the sample was not part of the research sample. The responses were assessed, however, for their ease of analysis and understandability. Such assessment indicated the minor changes that were necessary to the questionnaires and that final analysis and interpretation should be readily achievable.

The average length of time taken to complete the questionnaires was 10 - 15 minutes (for both the PQ and the UQ). This time is regarded as reasonable by market researchers (the Markinor group) and Howard and Sharp (1983). Any longer and the portion of non-responses would increase significantly.

The final step in the formulation of the questionnaires was the drafting of covering letters. The letters, including follow up letters, are shown in Appendices E to G.

#### 3.2.4 Mailing of Questionnaires

The first mailing of questionnaires took place on 12 February 1990. The date was selected with regard to the possible year end commitments of some of the finance directors and companies surveyed. However, an analysis of the number of replies by year end revealed no meaningfully significant difference between the number of replies by different year ends.

Respondents were asked to return questionnaires by 5 March 1990. A follow up letter was sent on 15 March 1990 to all who had not responded by 12 March 1990.

The replies were reviewed for usability and thereafter data was captured using the Multistat analysis software specifically designed for research studies.

#### 3.4 ANALYSIS AND INTERPRETATION

The study, interpretation and evaluation of the data collected is analysed in detail in chapters four to six.

The response rates of the two questionnaires are as follows:

<u>User group</u>	<u>Questionnaires</u> <u>Mailed</u>	<u>Usable responses</u>		<u>Total</u> <u>(%age)</u>
		<u>First</u> <u>Mailing</u>	<u>Second</u> <u>Mailing</u>	
Preparers	100	34	8	42
Users	100	30	5	35

#### 3.4.1 Test for Non-Response Bias

The response rates obtained were reasonable, given the nature of the study (Wallace and Mellor (1988)) and response rates achieved in similar studies (Firer and Meth (1985)). Nevertheless, whenever a questionnaire response rate is substantially less than 100 percent, a test for non-response bias is appropriate. In neither questionnaire was the data gathered either on an interval or ratio measurement scale. According to Siegel (1956) this precludes the use of parametric tests:

"if the measurement is weaker than that of an interval scale, by using parametric methods tests the researcher would "add information" and thereby create distortions ..... Moreover, the assumptions which must be made to justify the use of parametric tests usually rest on conjecture and hope ..... " (Siegel : p32)

Although others have argued against Siegel (notably Anderson (1958)), it is wise to err on the side of conservatism and use only non-parametric tests (Howard and Sharp (1983); Emory (1985)) on ordinal or nominal measurement scales (ie. those scales predominately used in this study). This is because if parametric tests are used on ordinal data, there is a danger that the other

assumptions inherent in parametric testing are overlooked. For example, in parametric tests, the observations must be independently drawn from normally distributed populations with equal variances. This is sometimes difficult to establish and with non-parametric tests achieving some 95 percent (Emory (1985)) of the efficiency of parametric tests, there is even more reason for use of the former.

The non-response bias was tested using an approach adopted by Oppenheim (1966). Late respondents (second mailing respondents) are used as a non-respondent control group and their responses to the individual questions are compared with the responses of the early respondents.

In the PQ, the eight earliest replies were compared to the eight second mailing replies using appropriate non-parametric tests: In the case of nominal data (such as yes/no replies), the Fisher exact probability test was used and the Mann-Whitney - U test was used for ordinal data. In no instances could the null hypothesis (ie. that the two samples are from the same population) be rejected at the 10 percent level of significance.

Nominal data collected with more than two possible replies could not be tested because the relevant test - the Chi-squared two sample test - is only appropriate with larger sample sizes. For this reason, data was regarded as ordinal wherever possible - for example, the responses to the question asking for an indication of the respondents' attitudes towards segmental reporting was easily converted into an ordinal scale. However, there were some questions that could not be tested for non-response bias because of the inappropriateness of the Chi-squared two sample test and because the data could only be regarded as nominal. For this

reason, and because only a ten percent level of significance (as opposed to a five percent significance level) was obtained, the reader is cautioned that in the case of the PQ, generalisations beyond the data actually gathered cannot be made with complete assurance.

In the case of the UQ, the same tests were used on the five earliest replies compared to the five second mailing tests. The more appropriate Mann-Whitney test was used more often because of the frequency of ordinal measurements as opposed to nominal measurements with more than two possible replies. The results were more powerful than with the PQ in that the null hypothesis could only be rejected at the five percent level of significance for one of the questions tested (this question was not significant at the ten percent significance level). These results indicated that non-response bias was probably not significant and that the results of the UQ could be generalised.

#### 3.4.2 Test for Larger Company Bias

In order to test whether or not there was a bias introduced using the Top 100 as the sample and not using a random sample of all listed companies, the respondents were split into two groups. The first group consisted of the respondents from the Top 30 survey sample, and the second group consisted of the respondents from the remaining 70 companies in the survey sample. In this way, an attempt is made to test whether or not the larger companies used in the survey sample introduced a bias at the expense of the smaller companies. The first group contained 16 respondents and the second group contained 26 respondents.

The appropriate non-parametric tests (as identified above) were used to test for differences between replies. The sample sizes were larger than those for the test for non-response bias. Therefore, the Chi-squared two sample test could be used where appropriate. This ensured more powerful results.

The tests indicated no significant differences between the two groups: in no instances could the null hypothesis be rejected at the 5 percent level of significance. This does not provide conclusive evidence that no information was lost by selecting a sample consisting of the larger (Top 100) listed companies. It does, however, provide an indication that there is unlikely to have been a bias introduced. It also provides some assurance that the greater percentage of respondents from the larger companies within the survey sample did not introduce a bias to the results obtained.

### 3.5 CONCLUSION

This chapter has outlined the research methodology utilised in this research study. Postal questionnaires were used to obtain data and the responses were analysed in order to test for non-response bias and for bias introduced by using the Top 100 rather than a random selection of listed companies. The next three chapters analyse in detail the data obtained.

## CHAPTER FOUR

### PREPARERS - ANALYSIS OF SURVEY RESULTS

#### 4.1 INTRODUCTION

This chapter analyses the responses of the companies that returned the PQ. As noted in chapter three, 42 usable responses were received. A summary of the responses is included in Appendix C, together with a copy of the questionnaire.

#### 4.2 THE PREPARERS - GENERAL INFORMATION

The first part of the PQ was designed to gather general information about the respondent.

##### 4.2.1 Respondents' Characteristics

All of the respondents indicated that they provided consolidated financial statements. Nine of the respondents each consolidated more than 100 subsidiaries, with the most subsidiaries in any one group being approximately 244. Frequently, respondents did not give details of the exact number of subsidiaries consolidated - rather, the approximate number was given. This is not only acceptable but was also expected as the purpose of this question was to provide general information on relative sizing in terms of the number of companies within a group.

The next two questions provided some general information about the extent of non-consolidated subsidiaries. 11 respondents indicated

that they excluded subsidiaries from their financial statements. Among the various alternative treatments for non-consolidated subsidiaries, there was no clear preferred choice. 3 of the 11 respondents indicated use of the cost method and the remaining 8 indicated use of either the equity method (4 respondents) or the alternative disclosure (4 respondents) set out in paragraphs 55 - 58 of schedule 4 to the Companies Act.

#### 4.2.2 Disclosure Practice

The next five questions obtained information about the disclosure practices of the respondents. 29 or 69% indicated that disclosure of segmental information was provided in their annual reports. Of the remaining 13 respondents (31%), 10 indicated in their responses to further questions that segmental disclosures were not applicable to them. This indicates that only 3 of the respondent companies, to whom segmental disclosures are applicable, do not disclose any segmental information. As such, this is indicative of a high degree of general disclosure. This disclosure was further examined to establish the extent of the more specific disclosures required by AC 115. Of the 29 who disclose segmental information in their annual reports, the following number (and percentages) provided the information indicated on an industry segment basis:

<u>TABLE 1</u>	<u>Industry Segment Disclosure</u>	
	<u>Number</u>	<u>%age</u>
Total assets	15	52
Turnover	26	90
Operating profit	24	83

It is encouraging to note that at least half of those who provide segmental information, give details of total assets by industry segment. However, is it disappointing that even the most basic of disclosure ie. turnover is not always disclosed. As discussed in chapter two, empirical evidence indicates the usefulness of segmental turnover information to the users of financial statements, but only 90% of those who disclose segmental information in their annual reports, disclose turnover. The picture is even bleaker when looking at the entire population of respondents; some 62% of the total company respondents provide a segmental turnover analysis. This figure compares favourably, however, with the results of the 1988 survey of published accounts run under the auspices of the South African Institute of Chartered Accountants: (Refer SAICA (1988 : p193)).

Turnover (by industry segment)

50%

The respondents indicated that the most common reason for non-disclosure of segmental information was that the disclosure was prejudicial to the company (19 respondents). Lowest scoring was the reason "will be misunderstood by the user" (3 respondents) which may indicate that preparers may be more concerned with what segmental information reveals rather than with the practicalities of providing and interpreting such information. The responses to this question will be considered in further detail at a later stage in this chapter.

If the disclosures by industry segment are disappointing, the disclosures by geographic segment are even more so. The responses were as follows for the items indicated:

**TABLE 2**                      **Geographic Segment Disclosure**

	<u>Number</u>	<u>%age</u>
Total assets	1	3
Turnover	2	7
Operating profit	2	7

The non-disclosure is not necessarily a reflection on the respondents reluctance to provide the information to users. There may be valid reasons why such disclosure is not applicable to the company.

Another point to note is that AC 115 makes the distinction between the determination of geographical segments - on a location of operations basis - and the making of export sales. The definition of geographical segments, therefore, includes the words "each engaged in operations in individual countries or groups of countries ....." (AC 115 : para 7). The disclosure of sales, segment result and assets employed for each reported geographical segment is laid down as a requirement in the Statement of Accounting Practice section of AC 115 (para 37). The disclosure of export sales is not, however, mandatory as it is addressed only in the explanatory paragraphs of the statement (para 20). This frequently results in geographical segmental disclosure not being applicable to a company - even though that company may be dealing extensively with other countries and have significant export sales.

An analysis of the respondents' annual reports was undertaken to determine the applicability of geographical segmental disclosures to each respondent. By using qualitative information contained in the chairman's statement and review of operations sections of the annual report as well as examining the accounting policies and subsidiaries of the group, the following results were obtained:

**TABLE 3****Respondents' Annual Reports**

	<u>Number</u>	<u>%age</u>
Companies using S15A (1) exemption	4	10
Annual report indicates no foreign operations	7	17
List of subsidiaries discloses operations within the TBVC States	1	2
List of subsidiaries discloses operations within the Southern African region	13	31
List of subsidiaries discloses operations internationally	13	31
No useful information in the annual report	4	9
	<u>42</u>	<u>100</u>

These results conflict sharply with the extent of disclosure on a geographic basis indicated by the respondents; that is, only 2 respondents indicated disclosure of, say, turnover on a geographic basis whereas the respondents' annual reports reflected 13 companies with international operations. This would indicate that either the extent of foreign operations is not material or the companies regard the provision of the information as prejudicial to their interests. Although materiality is difficult to assess from the annual reports, it is noteworthy that only three companies mentioned non-disclosure of segmental information for prejudicial reasons. In no instances were the audit reports qualified. Clearly, there is a reluctance to provide segmental information on a geographic basis.

- (1) - Section 15A of the Companies Act provides exemption from the obligation to disclose certain information concerning subsidiaries.

The final question in the introductory and general part of the PQ sought to obtain an indication about where segmental information is disclosed. The most popular choice is the directors' report - a choice corroborated by a review of the financial statements of the top 100 companies. The respondents indicated the location of disclosure as follows:

<u>TABLE 4</u>	<u>Disclosure Location</u>	<u>Number</u>	<u>%age</u>
	Directors' report	22	76
	Notes to the financial statements	3	10
	Chairman's review	4	14
		<u>29</u>	<u>100</u>

The disclosure of segmental information in the chairman's review rather than the directors' report is of significance. The directors' report is included within the ambit of the auditors' report whereas the chairman's review is often excluded. As such, the segmental information is, at times, presented as unaudited. This should be of concern to the users who indicated their opinions as to whether or not segmental information should be audited - 71% think that segmental information should be audited. This issue is explored further in chapter five.

The responses to this question are reasonably consistent with a similar analysis in Australia (Miller (1980) : p35):

<u>Place of disclosure</u>	<u>%age</u>
Review of operations	73
Directors' report	26
Notes to financial statements	1

One of the options available to the respondents was the income statement. This was included in the questionnaire because Mirza (1978) found that approximately 14% of respondents preferred the income statement for the disclosure of segmental information. Such disclosure would require a segmented income statement, including reconciling items to the total "normal" income statement. However, no respondents to the PQ indicated use of the income statement for disclosure.

The introduction section of the PQ was useful, therefore, in obtaining general background information about each respondent as well as the respondents as a group. The points of significance arising from this part of the study can be summarised as follows:

- all of the respondents publish consolidated financial statements. Some respondents (26%) exclude certain subsidiaries from their financial statements but adequate alternative data is published;
- 69% of the respondents publish segmental information in their annual report;
- the extent of disclosure of required segmental information on an industry basis is high (75% on average) but could be improved by better compliance with the requirement to disclose total assets on an industry basis;

- the extent of disclosure of required segmental information on a geographic basis is minimal;
- the most common reason for non-disclosure of segmental information by preparers is that disclosure is prejudicial to the company;
- the most common location for the disclosure of segmental information is the directors' report.

The next section analyses the responses to questions on specific problems/issues.

#### 4.3 THE PREPARERS - SPECIFIC PROBLEMS/ISSUES

This part of the questionnaire obtained information that is relevant to the problems and issues that were identified in chapter two. Amongst the issues addressed were:

- segment identification;
- segment operating profit;
- segment turnover;
- segment assets.

##### 4.3.1 Segment identification

The first problem or issue addressed was that of segment identification. As identified in chapter two, the basis for segment identification has been widely debated in the literature. Some writers (notably Emmanuel & Gray (1977 and 1978)) presented methodologies for effective segment identification and have

emphasised the need for consistency in the identification of segments. Other writers (notably Backer and McFarland (1968 : p10 - 11)) noted that users were not particularly interested in inter-segment comparisons between companies. As such, there is no need for consistency in identification of a segment between companies. The only disclosure required, therefore, is the basis used by a company for determining a reportable segment. Also, there should be consistency in the basis of segment choice to ensure meaningful analysis across time.

In addition to the above points on the segment identification issue, another consideration arises: preparers often cite the reason for non-disclosure as the difficulties encountered in providing the information (7 respondents in this survey indicated that this was a reason for non-disclosure). Often these difficulties include the identification of segments. However, as identified by Mautz (1968) companies frequently make use of their own internal "segmental data" in order to make informed management decisions. Management are in the best position to determine segments from a decision making point of view and such information would, therefore, surely be of use to users.

The first question in this section, therefore, asked respondents what/which basis/bases they need for distinguishing segments. The results were as follows:

TABLE 5**Basis for Segmentation**

	<u>Yes</u>	<u>No</u>
Organisational units	32	10
Legal entities	14	28
Product lines/services	18	24
Geographically	12	30

Clearly, organisational units are the most common basis for determining a segment internally. This is logical in that often an area of management responsibility/authority is an indication of not only a separate identifiable part of a business but also an indication of different risks and rewards attributable to a particular segment. This would be the case where a manager with particular skills is required for an identified segment or division of a company. Of course, this cannot be taken to extremes in identifying segments as the borderline between a segment and a cost centre becomes blurred. For example, a company might include in its organisational structure a human resource department headed up by a human resource manager/director. Depending on the costing/internal accounting system, this division may be "profitable". Based on the results of the UQ and interviews held with users of financial statements, such information would be of little or no use to them in assessing a company's performance. The organisational unit should, therefore, only be used as a guide in determining the identity of reportable segment.

It is interesting to note that 12 respondents indicated that they used a geographic basis to determine segments. This contradicts sharply with the extent of disclosure of geographic information (refer above discussion) but may be an indication that segments determined on a provincial (or similar) basis are not regarded as reportable in terms of AC 115. This is a basis for future research into the seeming lack of disclosure of geographic segmental information.

The support for using either legal entities or product lines/services to identify segments for internal reporting purposes indicates the difficulties obtained in trying to regulate

the segment identification issue. There are a variety of ways to determine segments and standard setters have tended, therefore, to allow management latitude in deciding on reportable segments (refer Appendix A). Returning to our original analogy (in chapter one), it is clear that a regulated basis for deconsolidating a league table at the end of a season is not practical. Without doubt, "users" would place a different emphasis on varying degrees of disaggregation. As such, some discretion is needed in the provision of such information. The great diversity of ways to determine reportable segments for internal reporting purposes corroborates this view.

The next question was designed to identify whether the three requirements of AC 115 (ie. turnover, total assets and operating profit) were identified by preparers for internal reporting purposes. The following results emerged:

	<u>Number</u>	<u>%age</u>
Turnover	41	98
Total assets	38	90
Operating profit	42	100

The results clearly show that nearly all respondents identify the three items for internally reported segments. This result is of interest when compared to the responses to the earlier questions on the extent of disclosure for two reasons:

- only 29 of the 42 respondents indicated that they disclose segment information. This is despite the fact that all of the respondents identify at least operating profit attributable to a segment (as identified for internal reporting purposes);
- although 29 respondents disclose segmental information, the extent of their disclosure does not match the extent of their internal reporting disclosures. As such, the reason "difficult to calculate" given for non-disclosure does not appear to have any basis of validity.

Very few respondents indicated that there was a minimum percentage point (in terms of turnover, total assets or operating profit) before a segment becomes reportable for internal reporting purposes. Those that did, (three respondents) identified that a segment was reportable from a 5% of turnover level. That is, segments become separately reportable at a relatively low level of importance within the entity as a whole.

The final question in the segment identification section asked the respondents whether or not, in their opinion, external analysts would have difficulty in interpreting the operating data used for internal reporting purposes. The results were as follows:

**TABLE 7****Interpretation of Internal Reporting**

	<u>Number</u>	<u>%age</u>
Yes	5	12
No	36	86
Uncertain	1	2
	<u>42</u>	<u>100</u>

It is encouraging that 86% of respondents believe their internal reporting data would be understood by external users. It not only indicates some faith in their own internal reporting but also is indicative of the fact that providers acknowledge that such information may be of relevance. This also provides the clearest evidence yet that identification of segments is not a major stumbling block if left to management's discretion. If relevant information is of use to management then it must surely be of use to the external analyst whose information needs are not as sophisticated as, perhaps, management's needs might be. The "coal face workers" are best able to assess and report on the situation at the coal face. At times, however, they need to be coerced into passing on that information to people removed from the coal face as its relevance to others is not always appreciated. Such a duty to coerce very often falls on the auditors' shoulders and segmental reporting in South Africa (ie. AC 115) is no exception.

This part of the PQ can be summarised as follows:

- the most common basis for determining segments internally is organisational units;

- 12 (29%) respondents indicated that segments are identified internally on a geographical basis;
- most companies "comply" with AC 115 for internal reporting purposes (that is, they identify turnover, assets and operating profit for internally identified segments);
- 86% of the respondents think that external users would have no difficulty in understanding their internally produced segmental information.

#### 4.3.2 Segment Operating Profit

The second part of this section of the PQ obtained information about the treatment of operating profit for each segment identified for internal reporting purposes. The objective was to obtain information about the methodology used by the respondents to obtain segment operating profit and to identify the extent to which costs were allocated to segments.

The first question of this section asked the respondents to identify what method they used to account for cost of goods sold. The responses were as follows:

<u>TABLE 8</u>	<b>Basis for Cost of Goods Sold</b>	<u>Number</u>	<u>%age</u>
Direct costing		19	45
Absorption costing (ie. including fixed overhead allocation)		16	38
Other		7	17
		<u>42</u>	<u>100</u>

These responses indicate no clear choice or preference for any of the costing methods presented. Although direct costing is more popular than absorption costing, the difference is not significant. The responses indicated by "other" often related to the companies operating where neither of the two options were applicable - for example, the service or retail sector.

It is worth noting in passing the implications of the above results to the requirements of AC 108 - Valuation and Presentation of Stock in the Context of the Historical Cost System:

"If fixed production overheads have been entirely or substantially excluded from the valuation of stock on the grounds that they do not directly relate to putting the stock in its present location and condition, that fact should be disclosed" (AC 108 : para 26). There is scope for further study to determine whether or not companies are either disclosing this fact or restating their stock valuations for financial statement purposes. Alternatively, the requirement is being ignored. Such an investigation is beyond the scope of this study.

Another question in this section asked which of the following expenses were allocated to segments for internal reporting purposes:

**TABLE 9****Extent of Expense Allocation**

	<u>Yes</u>	<u>%age</u>	<u>No</u>	<u>%age</u>
	<u>Number</u>		<u>Number</u>	
Administration	31	74	11	26
Research/development	28	67	14	33
Advertising	31	74	11	26
Other selling expenses	32	76	10	24
Interest	28	67	14	33
Taxes	22	52	20	48
Depreciation	33	79	9	21

The purpose of this question was to provide a basis for consideration of the reasonability of fulfilling users' requests for further information on a segmental basis. Chapter five examines the users' requests in more detail and investigates the appropriateness of some of the above disclosures being made.

It is worth noting that, with the exception of taxes, at least two thirds of all the respondents allocate the various charges/expenses to segments. The low percentage of allocations of tax is understandable in the light of:

- only 14 of the respondents indicated that they used legal (and hence taxable) entities as a basis for segmentation;
- tax is often not applicable as an expense to allocate to a segment/division as the result of assessed losses and "income shifting" practices which complicate an equitable allocation of taxation.

A further point is that some of the expenses indicated may not be relevant or applicable to some of the respondents (in which case they responded "no"), thereby illustrating the conservatism of the above results about who allocates various costs to segments. It is, unfortunately, not possible to distinguish between the "no" and "not applicable" answers.

The final question of this section asked respondents whether or not they find it misleading to allocate any of the costs that they do allocate. The responses were as follows:

<u>TABLE 10</u>	<u>Misleading to Allocate?</u>	<u>Number</u>
Yes		6
No		30
		<hr/> 36 <hr/>

The total number of responses is not 42 as a result of some respondents not answering this question. Presumably this is because some are uncertain about whether allocation of the costs is misleading. Even if these responses are regarded as "yes" responses, then 71% of all respondents indicated that they do not find it misleading to allocate those costs which they identified as being allocated to a segment for internal reporting purposes. This question, once again, has implications for the consideration of the question posed to the users about which expenses they would like analysed on a segmental basis. Final interpretation of this question is, therefore, held over until the following chapters.

### 4.3.3 Segment Turnover

The third part of this section of the questionnaire was designed to obtain information about the treatment of segment turnover.

The first topic addressed was whether inter-segment sales were included in the analysis. Of the 42 respondents, 34 answered the question - indicating that inter-segment sales were relevant to their group structure. The 34 respondents answered as follows:

**TABLE 11                      Inter-Segment Sales**

	<u>Number</u>
Excluded from the analysis	12
Included in the analysis	22

These responses indicate that more often than not inter-segment sales are included in the analysis. A point to note is that frequently the extent of disaggregation would determine the inclusion or otherwise of inter-segment sales. For example, the South African Breweries Limited disaggregates its segments into, inter alia, beverages, retail and hotels. It would not be practical and, perhaps, not meaningful to exclude the inter-segment sales of, say, beer. Any purchase of beer, therefore, by the hotel is regarded as an arm's length transaction and such sales would be included in the analysis. However, if the group were disaggregated to a much greater extent - for example, the beverage division were broken down into the manufacture, the bottling, the distribution and the retailing of beer - inter-segment sales would have to be identified separately. This example also illustrates that the kind of business operated would

impact on the extent to which inter-segment sales need to be suitably considered. The extent of vertical or horizontal integration, therefore, plays a part in the determination of whether or not inter-segment sales are included in the divisional/segmental analysis.

Of the 34 respondents who indicated that they had inter-segment sales, 22 indicated that inter-segment sales were conducted at normal selling price. A review of the individual replies indicated that these 22 were, without exception, the 22 respondents that had stated (in the previous question) that inter-segment sales were included in their segmental analysis. This indicated a comforting consistency in replies and illustrated that preparers felt that sales conducted on an arm's length basis (ie. at normal selling price) should not be excluded from the segmental analysis. Excluding these sales and thereby highlighting them separately would not enhance fair presentation nor would it disclose useful information. In fact, it might detract from fair presentation in that the implication is such that the sales would not take place if it were not for the company's position within the group. This is patently incorrect. South African Breweries would still be selling beer to the hotel groups, whether or not these hotels were part of their group.

The remaining respondents (ie. those not using normal selling price) use the following bases for inter-segment selling price determination:

<u>TABLE 12</u>	Inter-Segment Transfer Prices	<u>Number</u>
Cost price		1
A transfer price agreed to by senior management of the divisions/segments involved		11

Clearly, a transfer price is preferred to using merely the cost price and it is encouraging to note that whenever either the cost price or a transfer price is used then inter-segment sales are excluded from the analysis for internal reporting purposes.

#### 4.3.4 Segment Assets

The final part of this section of the questionnaire consisted of three questions about segment assets.

Firstly, most of the 42 respondents (39) indicated that at least 90% of assets could be identified with specific segments. The remaining respondents did not share these sentiments: 2 indicated that less than 50% of the assets could be identified with specific segments while one indicated that only between 60% and 70% could be identified with specific segments. It is likely that the 3 respondents who could not identify more than 70% of their assets with particular segments are in specific/unique industries which preclude the identification of assets with particular segments.

The next two questions asked about the allocation of specific balance sheet items. The respondents were asked whether or not the following items were allocated to segments for internal reporting purposes:

	<u>Yes</u>	<u>%age</u>	<u>No</u>	<u>%age</u>
Debtors	37	88	5	12
Creditors	36	86	6	14
Total assets	37	88	5	12
Fixed assets	37	88	5	12
Stock	37	88	5	12

Clearly, most of these balance sheet items are allocated to segments and where they are not allocated it is because it is not possible to identify them with specific segments or it is not meaningful. For example: suppose segments are divided on a geographic basis and each segment consists of a manufacturing operation of identical products. The products are sold via a central distributing warehouse to retail outlets throughout each geographic segment. The problem that arises is that whereas debtors would be allocated to the segments in which the sale was made, creditors would probably be allocated to the segment in which the product was manufactured and this would lead to confusing results. Similar arguments can be applied to the other balance sheet items indicated.

The fact that such a high percentage of these items can be allocated to segments is a clear indication that extensive disclosure of segmental information is practical. Indeed, if such disclosure is desirable then there is no reason for the information not to be given on the basis that it cannot be extracted - with the minor exceptions noted above where management discretion will be required. If information is extracted "in-house" then there should be no reason why it cannot be practicably presented for outside consumption. This is particularly apparent when the responses of the next question are analysed: only two respondents indicated that they found it misleading to allocate the balance sheet items noted above to segments. A more complete investigation of this factor is outlined in future chapters.

#### 4.4 THE PREPARERS - VIEWS ON AC 115

The final part of the PQ obtained information about preparers' views about statement AC 115 and about segmental reporting in general.

##### 4.4.1 AC 115 Compliance

The first question asked whether or not the respondent's company complied with AC 115:

**TABLE 14                      Extent of Compliance with AC 115**

	<u>Number</u>	<u>%age</u>
Yes	14	33
No	26	62

The 14 respondents who indicated that they complied with AC 115 appear to regard the provision of a geographical segmental analysis as not a requirement for them (with the exception of the 2 respondents who disclose geographical information (Table 2)). The responses to this question tie in fairly closely with the responses to the questions on the extent of disclosure on an industry basis discussed above in section 4.2.2. 15 companies (Table 1) indicated that they disclosed total assets as required by paragraph 37 of AC 115.

The extent of compliance with the disclosure by the respondents reveals little support for AC 115. Only 33% of the respondents consider themselves to comply with AC 115 - a figure that should be of some concern to the Accounting Practices Committee.

#### 4.4.2 Segmental Reporting - Opinions

The extent of compliance with AC 115 is at odds with the personal opinions of the respondents - in response to a question "Do you think that AC 115 requires:

**TABLE 15**                      **Opinions on AC 115**

	<u>Number</u>
Too little segmental disclosure	1
Just enough segmental disclosure	29
Too much segmental disclosure	10

This indicates that, although 26 respondents indicated that they did not comply with AC 115, only 10 respondents regard the statement as requiring too much disclosure. Conversely, not all of the 29 respondents who regard AC 115 as requiring just the right amount of segmental disclosure, consider it appropriate for their company to comply with the accounting statement.

The next question's responses complicated the issue even further - the respondents were asked if they found fulfilling the disclosure requirements of AC 115:

**TABLE 16**                      **Ease of Compliance with AC 115**

	<u>Number</u>
Easy to perform	23
Difficult but nevertheless possible	10
Extremely difficult	5

This indicated that over half the total respondents regard compliance with AC 115 easy to perform but over half the respondents do not comply with AC 115. Clearly, there must be reasons other than difficulties in extracting the information that preclude full compliance with AC 115. The answer is found in the response to the next question:

Do you regard compliance with AC 115 as being competitively prejudicial to your company?

**TABLE 17**                      **AC 115 - Seriously Prejudicial?**

	<u>Number</u>
Yes	22
No	19

Over half of the respondents are fearful that segmental disclosures are competitively prejudicial. This would appear to be a major reason for the lack of compliance with AC 115. This is of interest in that, as discussed above, AC 115 allows non-compliance with its disclosure requirements if the directors regard the information as "seriously prejudicial". However, "the fact that any such information has not been disclosed must be stated" (Refer AC 115 : para 02). In addition "if the auditor disagrees with management's decision not to provide segmental information then the auditor should qualify his opinion accordingly" (Hemus and Molteno : p9).

A qualitative review of financial statements of listed companies (the review included both respondents and non respondents) revealed very few instances where mention was made of the fact that segmental disclosures were not given. Also, only one audit

report made mention of non-disclosure of segmental information - this was contained in the 1990 Hortors Limited annual report. The directors' report contained the following statement:

"The directors have considered the reporting requirements of the Statement of Generally Accepted Accounting Practice AC 115. In the light of the industries in which the group operates and the commercial pressures from the market place, the directors are of the opinion that the disclosure requirements of AC 115 would be detrimental to the group" (Hortors 1990 annual report : p4).

The auditors expressed no opinion as to whether or not they agreed with the directors, but did at least draw attention to the non-compliance with AC 115 in their audit report:

"For reasons set out under "segmental reporting" in the directors' report, the group has not complied with the disclosure requirements of Statement of Generally Accepted Accounting Practice - AC 115 on segmental reporting" (Hortors 1990 annual report : p3).

It is submitted that more companies (and their auditors) should follow suit with Hortors and ensure that they note at least the reasons for non compliance with AC 115.

Despite being unwilling, in the main, to give segmental disclosure, respondents indicated their opinion as to whether investors are able to make better decisions with segmental information:

**TABLE 18**                      **Segmental Information - Useful to Users?**

	<u>Number</u>	<u>%age</u>
Yes	28	67
No	8	19
Uncertain	6	14
	<u>42</u>	<u>100</u>

At least 67% of the respondents, therefore, regard the provision of segmental information as being useful to investors. This was corroborated in the next question where the respondents indicated the following attitudes towards segmental disclosure:

**TABLE 19**                      **Segmental Information - Attitudes**

	<u>Number</u>	<u>%age</u>
Favourable	18	43
Qualified approval	11	26
Neutral	8	19
Opposed	5	12
Strongly opposed	-	-
No comment	-	-
	<u>42</u>	<u>100</u>

The 69% of respondents indicating either qualified approval or favourable attitudes ties in closely with the 67% of the respondents (table 18) who acknowledged that segmental information is useful to investors.

The results of these two questions reveal a firm support for the principles of segmental disclosure, if not a firm commitment to

those principle. The results are interestingly different to similar questions posed to Australians in 1978:

"Eleven respondents out of 29 (38%) believed that segmented disclosure would enable investors to make better decisions. Fifteen (52%) held the opposite view, while three were uncertain ..... Managements were asked to indicate their overall attitude towards disclosing segmental information in published annual reports. (The) table shows their responses":

	<u>Number</u>
Favourable	5
Qualified approval	8
Neutral	-
Opposed	11
Strongly opposed	4
No comment	1

(Mirza (1978 : p12))

The results were significantly different to those obtained in this survey. This difference may be attributable to the acceptance of the necessity for disclosure of segmental reporting by the major international accounting bodies. In addition, international trends (1) have shown a more favourable acceptance of segmental

(1) - See ICAEW, Financial Reporting 1983-84 et seq - A survey of UK published accounts and AICPA, Accounting Trends and Techniques - Annual survey of Accounting Practices followed in 600 stockholders' reports 1987.

reporting (particularly a reduction in fear of what such disclosure might reveal) since 1978 when the Australian study was published.

The significant points arising from this section of the PQ can be summarised as follows:

- although 69% of the respondents regard AC 115 as requiring "just enough segmental disclosure", only 33% of the respondents indicated that they complied with AC 115;
- most of the respondents indicated that the AC 115 disclosure requirements are easy to perform;
- although 67% of the respondents think that investors are able to make better decisions with segmental information, some 52% think that disclosures are competitively prejudicial to their company;
- most respondents are favourably disposed towards segmental reporting.

#### 4.5 CONCLUSION

This chapter analysed the responses to the PQ. The respondents indicated the extent to which they supplied segmental information for internal use and to external users. In addition, the respondents indicated the difficulties encountered when preparing segmental information and their opinions on AC 115.

## CHAPTER FIVE

### USERS - ANALYSIS OF SURVEY RESULTS

#### 5.1 INTRODUCTION

This chapter analyses the responses of the investment analysts who returned the UQ. As noted in chapter three, 35 usable responses were received. A summary of the responses is included in Appendix D, together with a copy of the questionnaire.

#### 5.2 THE USERS - INFORMATION NEEDS

The first part of the UQ was designed to determine the relative importance of types of information and sources of information useful to investors when making an investment decision.

##### 5.2.1 Types of Information Required

The respondents were asked to rank investment characteristics in order of importance when considering an investment opportunity.

The results are as follows in order of importance (note that respondents ranked the most important characteristic as one and the least important characteristic as six) together with the characteristic's mean ranking (1):

- (1) - The author acknowledges that it is not theoretically correct (Thurstone (1959)) to combine the rankings of a number of respondents into a weighed sum combined index. However, as Howard and Sharp (1983 : p89) point out, with a number of observations, this approach gives adequate results, and was used by Flynn (1988) in a similar study.

**TABLE 20**                      **Ranking of Investment Characteristics**

<u>Rank</u>	<u>Characteristic</u>	<u>Mean</u>
1	Growth potential	2,0
2	Profitability	2,7
3	Managerial ability	3,0
4	Financial position	3,9
5	Stability	4,1
6	Financial policy	5,3

The results show a clear preference for growth potential as the most important characteristic when considering an investment opportunity. Indicators of growth potential include the extent of research and development expenditure, growth in earnings per share, and growth in major markets. This concern with the future and an investment's prospects is implicit in the investment decision. An investor is concerned with his own cashflows and any investment decision will impact directly on his future cash flows. Any past cash flows are an historical fact and have no direct impact on future cash flows. Past cash flows might well give an indication of future cash flows but do not, per se, change the likelihood or otherwise of future cash flows.

Profitability was selected by the respondents as the second most important characteristic to consider when making an investment decision. Indicators of profitability include net income, return on equity, return on assets, operating income, earnings per share, asset turnover, and earnings yield. The essence of the profitability indicators are that they are income statement orientated. Investors are more concerned with summarised operating data than they are with the "snap-shot" or balance sheet

picture. This income statement orientation is consistent with the investor's needs to determine and project his future cash flows. Growth potential and profitability are determinants of future cash flows, while managerial ability (ranked third by the respondents) gives some measure of risk as to the variability of future cash flows.

Indicators of managerial ability include past growth of the company, share performance on the market, net income, reputation of management, reported financial position, forecasting ability, and historical trends. It is interesting to note that a highly ranked characteristic such as managerial ability is disregarded as an asset on the traditional balance sheet. Whilst further speculation on this point is beyond the scope of this study, much research has been done on the topic (1).

Financial position was the next most important characteristic ranked by the respondents, although it was ranked significantly lower than the first three characteristics (mean ranking of 3,9 against 3,0 for managerial ability). Indicators of financial position include ratios such as the current ratio, the quick ratio, the debt-equity ratio and other factors such as interest cover, cash flows and forecasts. The indicators are balance sheet orientated and provide some measure of protection to investors as to the certainty or otherwise of future cash flows.

- (1) - The topic is commonly known as Human Resource Accounting. See further Woodruff (1970), Flamholtz (1972) and Lev and Schwartz (1971).

Stability was ranked almost as important as financial position as a characteristic to consider when making an investment decision. Stability is also balance sheet orientated and provides information about, inter alia, the risk of a particular investment. The indicators of stability include the extent of product diversification and geographic dispersion, the nature of products, the size of a company and the interest cover. Clearly these factors are not as important to users as growth and profitability factors, despite the fact that these are arguably interlinked.

The least important characteristic was financial policy. Indicators of financial policy include working capital ratios, debt-equity ratio, dividend pay-out ratio, capital structure and financing decisions (for example, lease versus buy).

The results of this question were consistent with the results obtained by Mautz (1968). In his study, Mautz asked the respondents to rank by allocating 100 points between the various options. He obtained the following results in response to a similar question to the above:

<u>Rank</u>	<u>Characteristic</u>	<u>%age</u>
1	Growth potential	24,5
2	Managerial ability	22,5
3	Profitability	21,6
4	Financial position	11,6
5	Stability	10,6
6	Financial policy	9,2

(Mautz : p105)

The striking similarity in the results may be summarised as follows:

- the distinctive grouping of the first three characteristics versus the second three characteristics is apparent in both sets of results;
- although the ranking of profitability and managerial ability is reversed, the difference is not significant in that the rankings are close;
- financial policy is clearly the least important characteristic in both results;
- there is no significant difference between financial position and stability as a characteristic in either study.

Mautz's study found that the most important indicators of the first three characteristics were as follows:

<u>Characteristic</u>	<u>Indicator</u>	<u>%age</u>
Growth potential	Growth of major markets	23,9
Managerial ability	Growth of company	23,8
Profitability	Return on equity	24,2

(Mautz : p106 - 109)

The responses to this question indicated, therefore, that there is a strong emphasis upon operating results stated in terms of earnings measured against a base. There is also an emphasis upon non-accounting information such as the indicators of managerial ability.

### 5.2.2 Sources of Information

Having determined the characteristics which respondents consider of most importance, the next question sought to determine the sources of information investors rely on to gain knowledge about a potential investment. Four sources of information were listed in the question and the results are as follows:

**TABLE 21**                      **Ranking of Sources of Information**

<u>Rank</u>	<u>Source of information</u>	<u>Mean</u>
1	Financial statements	1,6
2	Interviews/discussions with management	1,9
3	Press/Journals	3,2
4	Industry reports	3,3

The results are similar to those obtained by Mautz (refer Mautz page 110 - 113) and indicate a high reliance on financial statement information and interviews with management when evaluating the various investment characteristics. The reliance on communication with management is consistent with the user's interest in managerial ability.

Communication with management is frequently cited as an important source of information by all groups of users. In fact, Flynn (1988) found that financial analysts ranked communication with management as slightly more important than financial statements, while other groups of users preferred financial statements to communication with management as sources of information (Flynn: p14). There is therefore a clear preference for these two sources

of information over the use of either the press or industry reports.

The responses to the first two questions can be summarised as follows:

- the more important investment characteristics to users when considering an investment decision are growth potential, profitability and managerial ability;
- these investment characteristics are assessed using a variety of sources of information, the more important being financial statements and communication with management;
- using the investment characteristics as the criteria, users appear to favour use of the income statement over the balance sheet.

### 5.3 THE USERS - OPINIONS ON SEGMENTAL INFORMATION

The second part of the questionnaire was designed to obtain the respondents' view on AC 115, the extent to which segmental information is used and the usefulness of segmental information.

Respondents indicated the extent to which they make use of segmental information:

**TABLE 22**                      **Segmental Information - Usage**

	<u>Number</u>	<u>%age</u>
All the time	28	80
Often	6	17
Some of the time	1	3
Not at all	-	-
	<u>35</u>	<u>100</u>

These results are not significantly different to those obtained by Steedle (1983 : p42):

	<u>Number</u>	<u>%age</u>
All the time	10	91
Often	1	4
Some of the time	1	4
Not at all	-	-

Clearly, if segmental data is presented, then it is used. But is the information sufficiently extensive? The next question asked respondents to indicate their opinion as to the adequacy of AC 115 disclosure requirements:

**TABLE 23**                      **AC 115 Requirements - Sufficient?**

	<u>Number</u>	<u>%age</u>
More than sufficient	4	12
Sufficient	18	51
Somewhat sufficient	13	37
Of no use at all	-	-
	<u>35</u>	<u>100</u>

Approximately 37% of the respondents are of the opinion that AC 115 disclosure requirements are less than sufficient ("somewhat sufficient"). On the face of it, this is not wholly unacceptable - there will always be users who are not satisfied with the disclosure requirements of an accounting standard. However, in the next question, no respondent indicated that companies comply fully with AC 115.

Responses to "In your opinion, are companies complying with the requirements of AC 115?" were as follows:

<u>TABLE 24</u>	<b>AC 115 - Opinion on Compliance</b>	<u>Number</u>	<u>%age</u>
Yes, completely		-	-
Yes, partly		24	69
No		11	31
		<u>35</u>	<u>100</u>

In other words, no companies appear to be complying in full with AC 115; and some 37% of respondents would not be satisfied even if all companies complied with AC 115. Clearly, there are a number of users dissatisfied with the extent of segmental disclosures. Of some encouragement, though, is the fact that 24 (69%) of the respondents indicated that companies were at least partly complying with AC 115.

The respondents indicated mixed feelings about whether companies were prejudiced competitively by providing segmental information:

**TABLE 25**                      **Segmental Disclosures - Prejudiced Competitively?**

	<u>Number</u>	<u>%age</u>
Yes	13	37
No	22	63
	<u>35</u>	<u>100</u>

Clearly there is more than just an awareness of the competitive disadvantages in disclosing segmental information: financial analysts realise that there are dangers involved and acknowledge that this might be a valid reason for non-disclosure.

The "seriously prejudicial" clause in AC 115 was drawn to the attention of the respondents and they were asked to indicate whether or not management of a company should be allowed to invoke the "seriously prejudicial" clause of AC 115:

**TABLE 26**                      **"Seriously Prejudicial" - Management Decision?**

	<u>Number</u>	<u>%age</u>
Yes, but only if the reasons for non-disclosure are given	17	49
Yes	5	14
No	13	37
	<u>35</u>	<u>100</u>

It is interesting to note that approximately 37% of respondents feel that management should not be allowed to invoke the "seriously prejudicial" clause. This implies either that they feel that the clause should not be invoked at all or that full disclosure of segmental information should be given unless a third party - for example, the auditor, decides that providing such information would be seriously prejudicial to the company. This may well be an impractical decision to implement as management are in the best position to determine the likelihood of disclosure being seriously prejudicial and it may place a considerable burden on the third party to determine and make the decision. Alternatively, the decision is made by management and disclosure is made of the reasons for the decision - an option favoured by the majority of the respondents. As discussed further in the next chapter, these reasons are often not given - although required by AC 115.

The results of this section of the UQ can be summarised as follows:

- 80% of the respondents make use of segmental information whenever it is provided;
- the respondent's views are somewhat divided on the adequacy of AC 115: 63% regard the disclosure requirements of AC 115 as at least sufficient, while 37% regard them as somewhat sufficient;
- only 69% of the respondents think that companies comply (partly) with AC 115. (No respondents thought that companies comply in full);

- the majority of respondents (63%) do not think that a company is prejudiced competitively by disclosing segmental information;
- 37% of the respondents do not agree that management should be allowed to make the decision not to disclose segmental information on the grounds that it would be seriously prejudicial to the interests of the company.

#### 5.4 THE USERS - SEGMENTAL DISCLOSURE DIFFICULTIES

Having examined the user's needs and opinions about segmental reporting, the questionnaire highlighted a few issues that complicate the segmental reporting problem. The first issue was that of inter-segment sales and respondents were asked to indicate at which stage inter-segment sales are material and should be excluded from a segmental analysis:

	<u>Number</u>	<u>%age</u>
0 - 5%	4	11
5 - 8%	7	20
8 - 10%	5	14
10 - 15%	8	23
Greater than 15%	11	32
	<u>35</u>	<u>100</u>

The results were similarly distributed to those obtained by Mautz and indicate that 45% of the respondents regard inter-segment sales of less than 10% as significant enough to eliminate these sales from the segmental analysis.

The next two issues related to the allocation of common costs and common assets. In both cases, respondents expressed an acceptance of management allocating common costs on some subjective basis:

**TABLE 28**                      **Allocation of Common Costs**

	<u>Common assets</u>		<u>Common costs</u>	
	<u>Number</u>	<u>%age</u>	<u>Number</u>	<u>%age</u>
Allocated by management to the best of their ability, but nevertheless subjectively	30	86	29	83
Ignored and only directly attributable items allocated	4	11	5	14
Some other basis	1	3	1	3
	<u>35</u>	<u>100</u>	<u>35</u>	<u>100</u>

These responses indicate that users are satisfied that allocation decisions be taken by management and are in agreement with the view taken by the various accounting standards on the treatment of common costs and assets (refer Appendix A). Management are arguably in the best possible position to make such decisions and if they in fact use the information for their own internal purposes then such an allocation decision is likely to be of relevance to external users.

A further issue addressed was that of defining the segment result (or income) figure. The Financial Accounting Standards Board in the United States included a requirement in their exposure draft on segmental reporting to disclose a "defined income" figure by

segment. A defined figure for each segment's result (for example, contribution income) would facilitate intercompany analysis and have the benefit of excluding non-relevant and non-operating data from the calculation of the figure. The respondents indicated strongly that they would prefer a "defined income" figure to be given on a segmental basis for the segment result disclosure:

In your opinion, should segment income be a defined income figure? (for example, sales less direct expenses);

**TABLE 29**                      **Defined Income?**

	<u>Number</u>	<u>%age</u>
Yes	26	74
No	9	26
	<u>35</u>	<u>100</u>

Similarly, Mautz found that approximately 88% of respondents would welcome and use a defined profits figure (Mautz : p122). Users welcome a defined income figure because it produces a more objective income figure.

Although the Financial Accounting Standards Board included the disclosure of a defined contribution income figure as a requirement in their exposure draft on segmental reporting, this requirement was not included in the subsequent statement SFAS 14 (refer Appendix A) because a number of commentators had expressed dissatisfaction with the requirement.

It was argued that "it is not practicable to distinguish between those operating expenses that may be said to be directly traceable

to a segment and those that may be said only to be allocable. Some respondents pointed out that traceability often depends on the sophistication of an enterprise's internal record keeping system." (SFAS 14 : para 78)

Although these arguments resulted in the requirement being dropped, the "statement does not proscribe that disclosure if an enterprise wishes to include it" (SFAS 14 : para 78). Noting this, and given that the respondents regard the information as desirable, consideration could be given to amending AC 115 to include a more explicit definition of segment result. Such a definition could enable the segment result figure to be used more objectively.

This section of the UQ can be summarised as follows:

- less than half of the respondents (45%) regard inter-segment sales of less than 10% as material enough to exclude such sales from a segmental analysis. This indicates that it is only when inter-segment sales are greater than 10% of total sales that it is considered that they become material enough to exclude from a segmental analysis;
- most respondents think that common costs and common assets should be allocated by management;
- 74% of the respondents would welcome disclosure of a defined income (for example, contribution profit) figure for each segment.

## 5.5 THE USERS - OPINIONS ON GEOGRAPHICAL DISCLOSURES

This section of the questionnaire obtained information about the relevance of geographical segmental disclosures to users.

Respondents were asked firstly whether or not they regarded a geographical analysis as important. Most (83%) of the respondents felt that a geographical analysis was important, but not as useful as an analysis on an industry basis:

Responses to the question, "Which is a more useful segmental analysis to you?" were as follows:

	<u>Number</u>	<u>%age</u>
Geographical segments	2	6
Industry segments	23	66
Neither - equally useful	10	28
	<u>35</u>	<u>100</u>

Almost two thirds of the respondents regard an industry segmental analysis as more useful than a geographical segmental analysis. This assists in explaining the lack of attention to geographical segmental disclosures in both the literature (refer chapter two) and by users.

The respondents were asked to indicate which geographic basis should be used to determine geographical segments; and responded as follows:

**TABLE 31**                      **Geographic Basis for Segmentation**

	<u>Number</u>	<u>%age</u>
Regional/Provincial	6	17
International	11	31
Both	17	49
Other	1	3
	<u>35</u>	<u>100</u>

The replies to this question show that users are most interested in an international analysis. Although a regional/provincial analysis is not favoured over an international analysis, it is clear that users welcome such information - and not just because such information is "useful" additional information that is "nice to have" (evidenced by the fact that six respondents would prefer information on a regional/provincial basis to an international basis). Certainly, there is a demand for more detailed geographical information and consideration should possibly be given to making such disclosure mandatory. This is discussed further in the next chapter.

## 5.6

THE USERS - AUDITED SEGMENTAL INFORMATION OR NOT

The next question illustrated that most (71%) respondents feel that segmental information should be audited. This is important in that a review of the respondents' annual reports illustrated the following:

**TABLE 32**                      **Respondents' Segmental Information - Audited?**

	<u>Number</u>	<u>%age</u>
Segmental information audited	15	52
Segmental information only audited by means of a reference in the directors' report	7	24
Segmental information not audited	7	24
	<u>29</u>	<u>100</u>
No segmental information	13	
	<u>42</u>	
	<u>      </u>	

This indicates that only approximately 50% of the segmental information provided is audited, either by inclusion in the financial statement disclosures or by reference in the audit report. A further 24% of the segmental information provided is "technically" audited. This is because the information is not actually covered directly by the audit report: the directors' report refers to, say, the Chief Executive's Review (which includes segmental information) for information about the types of business conducted. Technically, then, the segmental information could be regarded as audited.

This gives rise to inconsistencies in treatment by the auditors as some auditors refer in the audit report to the actual pages containing the segmental information within, say, the Chief Executive's Review. Others make no mention of the pages containing the segmental information, but include the information in the scope of their report by means of the above technicality. Interestingly, there are even inconsistencies within audit firms. There is much scope here for further research.

**TABLE 34**                      **Ranking of Disclosures - Industry**

<u>Rank</u>	<u>Industry basis</u>	<u>Mean</u>	<u>Income statement (I)/ Balance sheet (B) Disclosures</u>
1	Turnover	2,6	I
2	Operating income	2,7	I
3	A defined income figure	6,5	I
4	Total assets	6,9	B
5	Interest paid	7,5	I
6	Taxes paid	8,3	I
7	Selling expenses	8,3	I
8	Stock	9,0	B
9	Fixed assets	9,4	B
10	Units produced	9,8	I
11	Debtors	10,0	B
12	Depreciation	10,2	I/B
13	Administration expenses	10,2	I
14	Creditors	10,6	B
15	Research and development expenditure	10,7	I
16	Extraordinary items	13,3	I

**TABLE 35**                      **Ranking of Disclosures - Geographic**

<u>Rank</u>	<u>Geographic basis</u>	<u>Mean</u>	<u>Income statement (I)/ Balance sheet (B) Disclosures</u>
1	Turnover	2,0	I
2	Operating income	2,7	I
3	Total assets	5,9	B
4	A defined income figure	6,3	I
5	Selling expense	7,0	I
6	Taxes paid	7,3	I
7	Interest paid	7,6	I
8	Stock	8,1	B
9	Debtors	8,4	B
10	Fixed assets	8,7	B
11	Administration expenses	8,8	I
12	Research and development expenditure	9,2	I
13	Creditors	9,2	B

These rankings show a clear preference for income statement disclosures over balance sheet disclosures. They also indicate that the requirements of AC 115 are certainly in line with the ranked needs of users in respect of turnover, operating income, and total assets. With regard to the other needs of users, it is worth comparing them to the responses to the PQ. The following proportion of preparers indicated that they allocate these expenses/items to segments:

<u>TABLE 36</u>	<b>Allocation by Preparers</b>	<u>%age</u> (of respondents)
Administration expenses		74
Research and development expenditure		67
Selling expenses		76
Interest paid		67
Taxes paid		52
Depreciation		79
Debtors		88
Creditors		86
Fixed Assets		88
Stock		88

With the exception of taxes paid, at least two thirds of all the PQ respondents allocate these items to segments for internal reporting purposes. This indicates that consideration could be given to including some of the above items as voluntary disclosures in AC 115. In this way, some companies may be encouraged to disclose those items which users may find useful for analysis purposes.

The preparers also indicated that they do not find it misleading to allocate the above items to segments. This implies that they have little difficulty in understanding and interpreting their internally produced segmental information. It follows, therefore, that more comprehensive mandatory disclosure requirements could be complied with fairly easily.

The degree of association between the rankings on a geographic basis and on an industry basis was measured using both the Spearman Rank Correlation Coefficient ( $\rho$ ) and the Kendall Rank Correlation Coefficient ( $\tau$ ). The two coefficients ( $\rho = 0,9588$  and  $\tau = 0,8462$ ) indicated a strong correlation between the two sets of ranks.

## 5.8 CONCLUSION

This chapter analysed the responses to the UQ. The respondents indicated that segmental information is important to them and is used by them whenever possible. In addition, the respondents have a keen understanding of the difficulties inherent in providing segmental information.

Although satisfied with the content of AC 115, the respondents indicated that no companies comply fully with AC 115 and that they would welcome a geographical segmental analysis on both an international and a regional/provincial basis.

## CHAPTER SIX

### ATTEMPT AT A RECONCILIATION : USERS AND PREPARERS

#### 6.1 INTRODUCTION

The two previous chapters have analysed and summarised the significant points and conclusions arising out of the responses to both the PQ and the UQ. This chapter reconciles the responses of the respective questionnaires. In doing so, some attempt is made to conclude on the adequacy of present disclosure requirements and practices in terms of requirements (AC 115) versus the needs of users.

#### 6.2 DISCLOSURE DIFFICULTIES

A frequently noted disclosure factor in the debate on segmental reporting (refer chapter two) is the difficulties encountered in presenting the information. These difficulties are, inter alia, the segment identification problem, the allocation of common costs and assets, and the treatment of inter-segment sales. The difficulties arise as a result of a certain degree of subjectivity in the determination of these three factors - thereby giving rise to possible misunderstandings in interpretation by users.

Accounting standard setters have adopted the view that these difficulties are best dealt with by management (refer Appendix A). Hence, the accounting statements tend to give only general guidance as to the procedures to be followed in overcoming these factors, although some call for additional disclosure - for example

the basis for inter-segment pricing. However, none of the requirements are prescriptive, and the final judgement rests with management.

The results of this study corroborate not only the above view, but also show that the disclosure requirements (of AC 115) are readily available from internal reporting systems and are not difficult to calculate/identify. For example, at least 90% of the company respondents identify the AC 115 disclosure requirements for internal purposes (for industry segments - which are predominately determined on an organisational unit basis). Very few of the respondents found it misleading to allocate expenses and balance sheet items to segments and the treatment of inter-segment sales (for internal reporting purposes) is consistent with the company's transfer pricing policy. Only seven respondents cited the reason "difficult to calculate" for not complying in full with the requirements of AC 115 (Tables 5 to 13, and 16).

The investment analyst respondents accepted management discretion (albeit a subjective discretion) in the allocation of common costs and common assets and a small majority indicated that inter-segment sales were only significant when greater than 10% of total sales (Tables 27 and 28).

This study, therefore, found little support for the premise that disclosure problems are a significant factor in the effective presentation of segmental information and in the extent of compliance with accounting statements on segmental reporting. Instead, the study shows that:

- difficulties in calculating segmental information are not primarily a motivation for non disclosure of segmental information;
- the users of segmental information are satisfied that management's discretion should be used when allocating/not allocating common costs and assets. In addition, they have a keen understanding of the effect of inter-segment sales.

### 6.3 "SERIOUSLY PREJUDICIAL" CONCERNS

As indicated in chapter one, AC 115 contains an "escape clause" that allows management the option of non-disclosure of segmental information if such disclosure would be seriously prejudicial to the interests of the enterprise.

35% of the investment analysts think that a company is prejudiced competitively by providing segmental information. This lends support to managements' use of the "seriously prejudicial" clause - especially as over half of the company respondents regard compliance with AC 115 as competitively prejudicial to their company (Tables 17, 25 and 26).

Although 63% of the investment analysts agree that management should be allowed to make this decision, 17 (49%) of them feel that the reasons for the decision must be given (AC 115 requires the fact of non-disclosure to be stated, but not the reasons therefor). A review of the annual reports of the PQ respondents showed that only three of the thirteen companies not providing detailed segmental information state that disclosure is not given. The remaining ten give no reason for the lack of disclosure.

As the audit reports are not qualified, a user is justified in assuming that these companies are single segment entities. However, the annual reports often reveal the opposite: the various operating divisions of the group are disclosed in, say, the Chairman's Review, but no segmental information is disclosed. Because the determination and identification of segments is at management's discretion (and rightly so based on the above conclusions), it is inappropriate to assume too much from the limited information contained in the annual reports. For this reason, no conclusions are drawn about whether the remaining 10 non-providers are single segment entities or not. Suffice it to note that inconsistencies between divisions identified and disclosures given in the annual report exist.

There are, therefore, three issues that arise from this discussion:

- investment analysts are not unanimous in their acceptance that management should be responsible for invoking the "seriously prejudicial" clause: some 37% of the respondents feel that management should not be allowed to make that decision;
- of the 22 (63%) respondents who agree that management may invoke the "seriously prejudicial" clause, 17 believe that the reasons for the decision reached should be disclosed;
- a review of the respondents' annual reports indicated that it is not always possible to identify whether companies that do not disclose segmental information are single segment companies.

These points raise implications for the very existence of the "seriously prejudicial" clause in AC 115 (or, for that matter, SSAP 25). There is clearly a belief among both the investment analysts and the company respondents that the provision of segmental information in compliance with AC 115 is competitively prejudicial to the company. However, the issue should also be examined from the point of view of the single segment company. Such a company provides complete financial statements for its particular single-segment activity. If a more diversified company operating in the same segment as this company fails to provide segmental information then, arguably, the single-segment company could be prejudiced by having provided the more detailed information. The Financial Accounting Standards Board, therefore, rejected the inclusion of a similar escape clause on the grounds that "the required disclosures about an industry segment are no more detailed or specific than the disclosures typically provided by an enterprise that operates in a single industry" (SFAS 14 : para 71). Nevertheless, the results of this study show an awareness by users that there are in fact competitive reasons that give rise to a reluctance to disclose (Table 25).

Of course, there may be reasons other than competitive ones for invoking the "seriously prejudicial" clause. Although an investigation into any other reasons is beyond the scope of this study, it is noted that disclosure of the reasons for invoking the clause rather than the fact that the clause is invoked would assist users in assessing what the true reason for non-disclosure is. As noted above, users would welcome such disclosure.

The various issues noted above give rise to the following conclusions on the "seriously prejudicial" clause:

- both investment analysts and preparers of financial statements acknowledge the existence of competitive reasons for the non-disclosure of segmental information. As such, there is no overwhelming evidence supporting the withdrawal of the "seriously prejudicial" clause from AC 115 (Tables 17, 25 and 26) other than the argument of the single-segment company;
- the decision as to whether or not to invoke the "seriously prejudicial" clause should not rest with management. Although AC 115 implies that the auditors should concur with management's decision to invoke the clause, this could be explicitly stated in the statement (Table 26);
- if the "seriously prejudicial" clause is invoked, then the reasons (and not merely the fact) must be stated. AC 115 would require amendment to implement this;
- a company that does not give any segmental information because it is a single segment company should state this fact. This would enable users to assess whether or not companies not disclosing segmental information are single-segment companies.

#### 6.4 AC 115 CONCERNS

The concerns of both users and preparers in relation to AC 115 are considered in two parts. Firstly, their opinions on compliance with AC 115 and secondly the adequacy of AC 115 are considered.

#### 6.4.1 Compliance with AC 115

The results of the UQ indicate that investment analysts always make use of segmental information when it is provided. This factor, together with information gathered as to what characteristics are considered when making investment decisions, provides firm support for the provision of segmental information (and, therefore, AC 115) (Tables 20 to 22).

However, no investment analysts consider that companies are complying completely with AC 115. Therefore, although there is a demand for segmental information, it is not always matched by supply (Table 24).

As noted above, often the reason for the lack of supply is a competitive one and 14 of the respondents to the PQ openly acknowledged that they do not comply with AC 115 (Table 14).

#### 6.4.2 Adequacy of AC 115

The investment analysts, on balance, indicated satisfaction with the adequacy of the disclosure requirement of AC 115. Only 13 (37%) of the respondents indicated that AC 115 disclosure requirements were insufficient (Table 23). The company respondents held different views: 10 (24%) respondents indicated that AC 115 required too much disclosure (Table 15). The majority of them, however, were either favourably disposed or expressed qualified approval towards segmental disclosures (Table 19).

The following implications arise out of this analysis:

- investment analysts would welcome as much segmental information as can be disclosed but are not dissatisfied with the extent of the requirements of AC 115. They indicated that there is only partial compliance with AC 115 (Tables 20 to 24);
- the preparers of financial statements are favourably disposed towards segmental reporting. However, they are not convinced that AC 115 does not require too much disclosure and, in general, they do not comply fully with AC 115 (Tables 1, 2, 14, 15 and 19).

## 6.5 GEOGRAPHICAL DISCLOSURES

The issues surrounding geographic segmental disclosures are not extensively debated in the literature (refer chapter two). For example: consideration as to the extent to which geographic segments should be broken down or grouped together has not been extensively investigated. This study identifies a number of relevant issues relating to geographic segmental analysis that are deserving of further research and investigation.

Although investment analysts prefer an industry segmental analysis to a geographic one, 83% of the respondents indicated that a geographic segmental analysis is important to them. Despite this need for information by the investment analysts, the PQ indicated that very little in the way of geographic segmental information is presented by the preparers (Table 2).

This non-disclosure was investigated further in chapter four by an analysis of the PQ respondents' annual reports (Table 3). An

interesting feature of this analysis was the extent to which companies operated in the Southern African region (that is, Zambia, Zimbabwe, Malawi, Botswana, Namibia, Lesotho and Swaziland). With the possible exception of Namibia, these countries constitute a different geographic segment in terms of AC 115.

The preparers of financial statements contest the relevance of geographical segmental disclosure requirements to companies operating only in the Southern African sub-continent. They point out that all sales and operations are subject to much the same risks and rewards operating within the region and that little added benefit is therefore achieved from the disclosure of a geographic analysis within the region. This argument requires further investigation.

The vagaries of the economic development of countries within the African sub-continent are well documented. Risks and rewards are surely affected by, inter alia, the provision of bribes at border controls, the threat of nationalisation and seizure of assets from time to time, and the "freezing" of foreign investment. That many companies have written down their investment in Zimbabwe subsidiaries/associates to a nominal R1 is surely indicative of an adjusted risk and reward profile.

Providers also argue the prejudicial nature of such disclosures - that is, political sensitivity precludes disclosure of sales to, say, Zambia. While this may well be justified, at times it may be little more than a lame excuse: frequently African countries openly acknowledge that they deal with South Africa and allow South African companies to operate within their borders. There are, therefore, no apparent competitive or market threats to a

South African company making disclosures in a South African annual report that is unlikely to enjoy wide circulation internationally.

The cost of non-disclosure, therefore, does not appear high. Certainly, if users did not require the information, it would not warrant providing the information. However, users do want the information. Based on interviews with financial journalists, there is a keen understanding of the risks and rewards of operating within the African sub-continent. Information on the extent of sales in such countries as well as the extent of assets held within such countries is welcomed and useful. Also, the investment analysts indicated similar needs - over half of the respondents think that both an international and regional basis should be used for determining geographical segments (Table 31). The argument can be taken a step further to include a provincial analysis.

The breakdown of segments into geographical regions within South Africa for companies operating only in South Africa (or, indeed, companies operating internationally as well) is arguably of value. For example, there is justification for the provision of sales on a provincial basis. The scope for growth in the Pretoria Witwatersrand Vereeniging (PWV) area is better than in, say, East London should a company be involved in the assembly and distribution of car phones. Alternatively, companies operating extensively in the recent violent areas of Natal are faced by different risks to companies operating solely in the Transvaal. While these examples are, perhaps extreme, it is difficult to envisage such disclosures as being seriously prejudicial to companies. Such disclosures certainly constitute fair presentation and provide for a better and more accurate assessment of a company's risk profile.

AC 115 does not require a geographical segmental analysis on a provincial basis as the "domestic operations of an enterprise are generally considered to be a separate geographical segment" (AC 115 : para 20). This does not, of course, preclude companies from disclosing such information. Those companies that, in their annual reports, make clear references to the regions (within South Africa) in which they operate and who the responsible management are, should be encouraged to disclose the required segment information to users.

AC 115 requires a geographical analysis of turnover only by origin and not by destination (refer Appendix A). However, the statement does encourage disclosure of export sales (ie. turnover by destination and not origin): "where sales of products and services by domestic operations of an enterprise to foreign customers outside the enterprise are significant, the amount of such export sales is usually disclosed" (AC 115: para 20). It is of interest that the annual report of one of the PQ respondents referred to significant export sales of their main product, but did not quantify the amount of such sales.

The above discussion, therefore, reveals a wealth of potential future research topics. The following are the implications arising out of this particular research study:

- investment analysts regard geographical segmental information as important to them and would welcome an analysis on a regional or provincial basis and not just an international basis. Although AC 115 requires disclosure of geographical segments on a regional basis, companies are not providing such information. As no audit reports are qualified, it would appear that the companies and their

auditors do not know that they are in contravention of Generally Accepted Accounting Practice. This could be addressed either by amending AC 115 or through the issue of an AC 300 series statement - the so called Task Force Opinions;

- the requirement to disclose export sales (where significant) should be included in the "Statement of Accounting Practice" section of AC 115, as well as in the explanatory notes (where it is presently situated). This would bring AC 115 more into line with similar international accounting statements and satisfy users' needs to a greater extent;
- where a company operates in only one geographic segment, this fact should be disclosed. This is a requirement of the Australian Statement (AAS 16) and would clarify disclosure practices for the user.

## 6.6 AUDITED DISCLOSURES

The respondents to the UQ indicated that not only is segmental information as valuable to users as consolidated information, but that they prefer segmental information to be audited (Tables 32 and 33).

The company respondents acknowledge that users are able to make better decisions with segmental information than without (Table 18). As such, it follows that in order for reliance to be placed on segmental information, it needs to be audited.

As discussed in chapter five, segmental information is often either not audited or only "technically audited" (by virtue of a reference in the directors' report). It is submitted that, to address the situation, segmental information should either be given in the financial statements section of the annual report or reference should be made in the audit report to the page(s) containing the segmental information (Tables 4 and 32).

To enforce this, some amendments to AC 115 would be necessary.

## 6.7 EXTENDED DISCLOSURES

This study shows that investment analysts use segmental information whenever it is provided, are more income statement than balance sheet orientated in the type of information required, and would welcome a defined income (for example, contribution income) figure as the segment operating profit disclosure (Tables 20, 22 and 29). In addition, there is evidence that additional disclosures (mainly income statement orientated) are useful to them in making investment decisions (Tables 20, 34 and 35).

The Financial Accounting Standards Board's statement (SFAS 14) on segmental reporting calls for additional disclosures (refer Appendix A), notably capital expenditure and depreciation. While these disclosures are useful, they are not ranked very highly by the investment analysts (ranking of 12 for depreciation) and there is no evidence in this study to suggest that AC 115 needs to be amended to match the requirements of SFAS 14 (Tables 34 and 35).

This study shows that companies do in fact allocate a number of balance sheet items to segments (in addition to the AC 115

requirements) and are able to identify most income statement items for internal reporting purposes (Table 36). As such, they would be able to disclose the further items that were ranked by the respondents to the UQ (refer chapter five).

However, there are no clear indications in this study that investment analysts' needs for further disclosures warrant amendments to AC 115. In fact, as noted above, investment analysts are generally satisfied with the adequacy of AC 115 requirements and, as such, their other needs are more "would be nice to have" than they are "vital information".

## 6.8 CONCLUSION

This chapter reconciled the responses of the respective questionnaires. Some suggested amendments to AC 115, together with other implications arising from the study, were presented. As such, requirements versus needs of segmental information were addressed.

## CHAPTER SEVEN

### CONCLUSION

#### 7.1 THE RESEARCH STUDY

This study determined users' needs for segmental information in South Africa and compared these needs to the adequacy of the requirements for segmental information in South Africa.

This was achieved by a literature search of segmental reporting and empirical data collected using postal questionnaires. The questionnaires were mailed to the Financial Mail top 100 companies and to 100 investment analysts chosen at random from the investment analyst's society address list. The response rates were 42% from the companies and 35% from the investment analysts.

The responses to the questionnaires are analysed in chapter four and five. Chapter six draws conclusions from the various responses to both questionnaires. This chapter relates the research hypotheses set out in chapter one to the conclusions drawn.

Normally, a statistical basis is applied to determine whether a research hypothesis is accepted or rejected. In this study, small samples, drawn from a particular portion of the population, were used. These samples are therefore not necessarily representative of the whole population. In general, however, the results pointed overwhelmingly one way or the other, and, with the above qualification, and on a subjective basis, conclusions as to the validity of the hypotheses are drawn in the next section.

## 7.2 THE RESEARCH HYPOTHESES

H1 Users use and desire segmental information.

The respondents to the users' questionnaire indicated that not only did they use segmental information when it was provided but that they would welcome any further disclosures. As such, this hypothesis is accepted.

H2 Preparers of financial statements are reluctant to provide segmental information.

The extent of segmental disclosure in accordance with AC 115 requirements, and the preparers views on segmental reporting and the competitive disadvantage of providing too much information, indicate that preparers of financial statements are reluctant to provide segmental information. This hypothesis, therefore, is accepted.

H3 Practical difficulties in preparing segmental information are overcome by preparers for internal reporting purposes.

The responses to the preparers' questionnaire indicated that not only do the preparers of financial statements have an appreciation of the difficulties encountered in segmental reporting, but these difficulties are overcome (wherever possible) for internal reporting purposes. In addition, where necessary, the shortcomings of segmental reporting are taken into account when interpreting segmental information. This hypothesis is, therefore, accepted.

- H4 Users are aware of the subjectivity involved when preparing segmental information.

The responses to the users' questionnaire showed that not only do users realise that a number of subjective decisions and subjective allocations may be made to produce segmental information, but also they acknowledge that management are best placed to make these decisions. This hypothesis is, therefore, accepted.

- H5 Users have an equal need for segmental information on an industry basis and a geographical basis.

The users showed a clear preference for segmental industry disclosures over segmental geographical disclosures. This hypothesis, is, therefore rejected. The study did reveal, however, the type of geographical segmental information that is welcomed by users.

- H6 Users are indifferent as to whether segmental information is audited or not.

The users were not conclusively in favour of audited segmental information over unaudited segmental information - 71% of the users think that segmental information should be audited. As such, it is submitted that there is insufficient evidence to reject the hypothesis out of hand and the hypothesis is accepted, albeit with reservations. The study revealed certain inconsistencies in disclosure as to whether the segmental information presented is in fact audited. This was discussed in chapter five.

- H7 Users would use and value as much segmental information as can be practicably presented.

The users' questionnaire indicated that users would welcome more segmental information than that which is presently disclosed and that the type of information that they would like is, in fact, provided on an internal reporting basis by the preparers. This hypothesis is, therefore, accepted.

- H8 Users regard AC 115 in its present form as inadequate.

Responses to both questionnaires indicated that certain amendments to AC 115 are needed. These amendments were discussed in chapter six. This hypothesis is, therefore, accepted. In general, though, it is noted that both users and preparers regard the disclosure requirements as adequate.

- H9 Preparers of financial statements do not comply fully with AC 115.

The results of both questionnaires indicated that compliance with AC 115 is uneven. As such, this hypothesis is accepted.

### 7.3 SCOPE FOR FUTURE RESEARCH

This study has identified a number of possible areas for further research in the segmental reporting arena. The more pertinent areas for further research are set out below:

- investment analysts indicate that they regard managerial ability as an important factor when considering an investment decision. Further research can identify what type of managerial ability investment analysts are particularly interested in and whether or not this has implications for the provision of segmental information;
- the majority of investment analysts prefer segmental information to be audited. This study indicated that not only is the information not always audited but also that the information is at times only "technically" audited as a result of reference to the information in the directors' or auditors' report. Further research, not only into the question of whether or not segmental information should be audited, but also whether it can be audited and where in the annual report segmental information should be disclosed, will be fruitful;
- there is a lack of compliance in both South Africa and the rest of the world with accounting statements on segmental reporting. This factor is deserving of further investigation. In particular, the reasons why certain statements - for example, SFAS 14 - are complied with to a greater extent than others could be investigated;
- this study identified that geographical segmental disclosures were seldom given. In addition, there were inconsistencies between the extent of disclosure and the indications given in the respondents' annual reports as to the number of geographical segments within which they operate. Also, geographical analyses are often ignored on a regional basis and only an analysis on an international

basis is given. These three areas are all deserving of further research - not only in the South African context, but also internationally;

- the inconsistencies between disclosures in, say, the chairman's review and the information contained within the financial statements could be investigated further;
- this study identified a potential research topic in an unrelated topic - that of accounting for stock. An investigation could be made to determine whether or not companies are allocating fixed production overheads to stock.

#### 7.4 CONCLUSION

This study has gone some way towards closing the gap between the needs for segmental reporting and the requirements for disclosing segmental information in South Africa. In attempting to close this gap, a number of further research topics have been identified. If followed, these studies would undoubtedly produce results that would close the gap even further.

**BIBLIOGRAPHY**

- Accounting Standards Committee      Statement of Standard Accounting Practice 25 - Segmental Reporting, 1990
- Accounting Standards Committee      The Corporate Report. London 1975.
- Albrecht, S,  
Johnson, O,  
Lookabill, LL and  
Watson, DJH      "A Comparison of the Accuracy of Corporate and Security Analysts' Forecasts of Earnings : A Comment." The Accounting Review, July 1977, pp 736 - 740
- Alexander, B      "Analysed Reporting - yes or no?" Accountancy, October 1976, pp 96 - 100
- American Institute of Certified Public Accountants      Accounting Trends and Techniques - Annual Survey of Accounting Practices followed in 600 stockholders' reports, AICPA, New York, 1987
- American Institute of Certified Public Accountants      Objectives of Financial Statements. Report of the Study Group on the Objectives of Financial Statements of Business Enterprises, New York 1973
- Anderson, NA      "Scales and Statistics : Parametric and Non parametric." Psychological Bulletin, 58, no 4, pp 315 - 316
- Ang, JS      "Aggregate versus Component Forecasts of Financial Statement Items." Review of Business and Economic Research 15, Fall 1979, pp 30 - 42
- Arnold, J,  
Holder, W and  
Mann, MH      "International Reporting Aspects of Segment Disclosure." International Journal of Accounting Education and Research, Fall 1980, pp 125 - 137
- Australian Accounting Standards Review Board      "Financial Reporting by Segments" ASRB 1005, 1986

- Backer, M and  
McFarland, W                      External Reporting for Segments of a  
Business. National Association of  
Accountants, 1968.
- Baldwin, BA                      "Segment Earnings Disclosure and the  
Ability of Security Analysts to Forecast  
Per Share." The Accounting Review, July  
1984, pp 376 - 389
- Barefield, RM                      "The Effect of Aggregation on Decision  
Making Success : A Laboratory Study.:  
Journal of Accounting Research, Autumn  
1972, pp 229 - 242
- Barefield, RM and  
Comiskey, EE                      "Segmental Financial Disclosure by  
Diversified Firms and Security Prices :  
A comment". The Accounting Review,  
October 1975, pp 818 - 821
- Barnea, A and  
Lakonishok                      "An Analysis of the Usefulness of  
Disaggregated Accounting Data for  
Forecasts of Corporate Performance".  
Decision Sciences, 1980, pp 17 - 26
- Barr, A                      "Need for Product Line Reporting".  
Journal of Accounting, January 1968
- Barret, ME                      "Financial Reporting Practices :  
Disclosure and Comprehensiveness in an  
International Setting". Journal of  
Accounting Research, Spring 1976, pp  
10 - 26
- Basi, BA, Carey, KJ  
and Twark, RD                      "A Comparison of the Accuracy of  
Corporate and Security Analysts'  
Forecasts of Earnings". The Accounting  
Review, April 1976, pp 244 - 254

- Bavishi, VB and Wyman, HE "Foreign Operations Disclosures by US - Based Multinational Corporations : Are they Adequate?" International Journal of Accounting Education and Research, Fall 1980, pp 153 - 168
- Beaver, WH Financial Reporting : An Accounting Revolution. Prentice Hall, 1981
- Belkaoui, A Accounting Theory. Harcourt Brace Jovanovich, USA, 1985
- Beresford, DR and Buckner, CO "Segment Reporting Practices". The CPA Journal, December 1978, pp 37 - 43
- Brown, LD "Accounting Changes and the Accuracy of Analysts' Earnings Forecasts". Journal of Accounting Research, Autumn 1983, pp 432 - 443
- Buckley, A "Accounting Objectives and Segment Reporting". Accountancy, May 1978, pp 48 - 52
- Cairns, D and Lafferty, M Financial Times World Survey of Annual Reports, 1980
- Canadian Institute of Chartered Accountants Segmental Information. Section 1700, April 1979
- Carnegie, G, Davies, S and Gavens, J "Segment Reporting - Material or not? The Chartered Accountant in Australia, June 1986, pp 50 - 53
- Chaliwal, D "Improving the Quality of Corporate Financial Disclosure". Accounting and Business Research, Autumn, 1980, pp 4 - 14

- Collins, DW "SEC Product-Line Reporting and Market Efficiency". Journal of Financial Economics, June 1975, pp 125 - 164
- Collins, DW "Predicting Earnings with Sub-Entity Data : Some Further Evidence". Journal of Accounting Research, Spring 1976, pp 163 - 177
- Collins, DW "SEC Line-of-Business Reporting and Earnings Forecasts". Journal of Business Research, May 1976, pp 117 - 130
- Collins, DW and Simonds, RR "SEC Line of Business Disclosure and Market Risk Adjustment". Journal of Accounting Research, Autumn 1979, pp 352 - 383
- Compagnoni, A and Siegel, JH "Segmental Reporting. The American Scene". The Australian Accountant, May 1980, pp 226 - 231
- Cooke, T and Whittaker, J "Segment Reporting - Directors' Discretion or SSAP?" Accountancy, April 1983, pp 77 - 78
- Emmanuel, CR and Garrod, NW "On the Segment Identification Issue". Accounting and Business Research, Summer 1987, pp 235 - 240
- Emmanuel, CR and Garrod, NW "Some Empirical Observations on Segmental Disclosure. "The Investment Analyst, October 1985, pp 12 - 17
- Emmanuel, CR and Gray, SJ "Corporate Diversification and Segmental Disclosure Requirements in the USA". Journal of Business Finance and Accounting, Winter 1977, pp 17 - 31

- Emmanuel, CR and Gray, SJ "Segmental Disclosures and the Segment Identification Problem". Accounting and Business Research, Winter 1977, pp 37 - 50
- Emmanuel, CR and Gray SJ "Segmental Disclosures by Multibusiness Multinational Companies : a Proposal". Accounting and Business Research, Summer 1978, pp 169 - 177
- Emmanuel, CR and Pick, RH "The Predictive Ability of UK Segment Reports". Journal of Business Finance and Accounting, Summer 1980, pp 201 - 218
- Emmanuel, CR and Rennie, E "Gauging Compliance on Segmental Reporting". The Accountant's Magazine, September 1990, pp 39 - 40
- Emory, CW Business Research Methods. RD Irwin, 1985
- Financial Accounting Standard Board Statement of Financial Accounting Standards No 14. Financial Reporting for Segments of a Business Enterprise, 1976
- Financial Accounting Standard Board Statement of Financial Accounting Standards No 21. An Amendment to Statement 14, 1978
- Financial Accounting Standard Board Statement of Financial Accounting Standards No 24. An Amendment to Statement 14, 1978
- Financial Accounting Standard Board Statement of Financial Accounting Standards No 30. Disclosure of Information About Major Customers, 1978

- Collins, DW "SEC Product-Line Reporting and Market Efficiency". Journal of Financial Economics, June 1975, pp 125 - 164
- Collins, DW "Predicting Earnings with Sub-Entity Data : Some Further Evidence". Journal of Accounting Research, Spring 1976, pp 163 - 177
- Collins, DW "SEC Line-of-Business Reporting and Earnings Forecasts". Journal of Business Research, May 1976, pp 117 - 130
- Collins, DW and Simonds, RR "SEC Line of Business Disclosure and Market Risk Adjustment". Journal of Accounting Research, Autumn 1979, pp 352 - 383
- Compagnoni, A and Siegel, JH "Segmental Reporting. The American Scene". The Australian Accountant, May 1980, pp 226 - 231
- Cooke, T and Whittaker, J "Segment Reporting - Directors' Discretion or SSAP?" Accountancy, April 1983, pp 77 - 78
- Emmanuel, CR and Garrod, NW "On the Segment Identification Issue". Accounting and Business Research, Summer 1987, pp 235 - 240
- Emmanuel, CR and Garrod, NW "Some Empirical Observations on Segmental Disclosure. "The Investment Analyst, October 1985, pp 12 - 17
- Emmanuel, CR and Gray, SJ "Corporate Diversification and Segmental Disclosure Requirements in the USA". Journal of Business Finance and Accounting, Winter 1977, pp 17 - 31

- Firer, C and Meth, G "Voluntary Information Disclosure in Company Annual Reports". South African Journal of Business Management, 1985, 16 : pp 151 - 156
- Flamholtz, E "Towards a Theory of Human-Resource Value in Formal Organisations". The Accounting Review, October 1972, pp 666 - 678
- Flynn, DK "Perceptions Regarding the Sources of Financial Information for South African Institutional Investors". De Ratione, Summer 1987, pp 2 - 12
- Foster, G Financial Statement Analysis. Englewood Cliffs, NJ : Prentice Hall, Inc. 1986
- Fraser, DJ "Reporting for Diversified Companies". The Chartered Accountant in Australia, May 1971, pp 4
- Garrod, NW and Emmanuel, CR "The Impact of Company Profile on the Predictive Ability of Disaggregated Data". Journal of Business Finance and Accounting, Summer 1988, pp 135 - 154
- Gavens, J and Carnegie, G "Segment Reporting". Australian Accountant, April 1988, pp 29 - 34
- Gonedes, N "Capital Market Equilibrium and Annual Accounting Numbers : Empirical Evidence". Journal of Accounting Research, Spring 1974, pp 26 - 26
- Goodwin, J and D "AAS 16 : Is it Achieving its Objective?" The Chartered Accountant in Australia, July 1987, pp 40 - 45

- Gray, SJ "Segment Reporting and the EEC Multinations". Journal of Accounting Research, Autumn 1978, pp 242 - 253
- Gray, SJ and Radebaugh, LH "International Segment Disclosures by US and UK Multinational Enterprises : A Descriptive Study". Journal of Accounting Research, Spring 1984, pp 351 - 360
- Hemus, C and Molteno, D "Segmental Reporting". Accountancy SA, January 1989, pp 8 - 27
- Hobgood, G "Segmental Disclosure in 1970 Annual Reports". Financial Executive, August 1971, pp 18 - 19
- Hopwood, WS, Newbold, P and Silhan, PA "The Potential for Gains in Predictive Ability through Disaggregation : Segmental Annual Earnings". Journal of Accounting Research, Autumn 1982, pp 724 - 732
- Howard, K and Sharp, JA The Management of a Student Research Project. Gower, 1983
- Institute of Chartered Accountants in Australia AAS 16 : Financial Reporting by Segments, 1985
- Institute of Chartered Accountants in England and Wales Financial Reporting 1983 - 84 (et seq) A Survey of UK Published Accounts, ICAEW. London, 1984 et seq
- International Accounting Standards Committee International Accounting Standard No 14 : Reporting Financial Information by Segment. London, 1981

International  
Accounting Standards  
Committee

ED 15 : Reporting Financial Information  
by Segment. London, 1979

Janet, M

The Need for Financial Reporting by  
Segments of a Business Enterprise. UCT  
Graduate School of Business Thesis

Kinney, WR

"Predicting Earnings : Entity vs  
Subentity Data". Journal of Accounting  
Research 9, Spring 1971, pp 127 - 136

Kochanek, RF

"Segmental Financial Disclosure by  
Diversified Firms and Security Prices".  
The Accounting Review, April 1974,  
pp 245 - 258

Lev, B and  
Schwartz, A

"On the Use of the Economic Concept of  
Human Capital in Financial Statements".  
The Accounting Review, January 1971, pp  
103 - 112

Low, AM, Koh, HC and  
Tan, SK

"An Empirical Investigation into the  
Informational Value of Segment Reports".  
Singapore Accountant, December 1985, pp  
14 - 20

Lurie, A

"Selecting Segments of a Business".  
Financial Executive, April 1980, pp  
34 - 44

Mautz, RK

Financial Reporting by Diversified  
Companies. New York, Financial  
Executives Research Foundation, 1968

Miller, M and  
Scott, M

"Segmentation of Consolidated Financial  
Statements". The Chartered Accountant  
in Australia, June 1980, pp 33 - 36

- Mirza, AM "A Survey of Company Managements' Views on Segment Reporting". The Chartered Accountant in Australia, April 1978, pp 10 - 15
- Oppenheim, AN Questionnaire Design and Attitude Measurement. Heinemann Basic Books, London, 1966
- Ortman, RE "The Effects on Investment Analysis of Alternative Reporting Procedure for Diversified Firms". The Accounting Review, April 1975, pp 298 - 304
- Parker, R Segmental Reporting. University of the Witwatersrand Technical Report, 1988
- Rappaport, A, Firmin, PA and Zeff, SA Public Reporting by Conglomerates : The Issues, the Problems and Some Possible Solutions. Englewood Cliffs, NJ Prentice Hall Inc, 1968
- Rappaport, A and Lerner, E A Framework for Financial Reporting by Diversified Companies. National Association of Accountants, 1969
- Rappaport, A and Lerner, E Segment Reporting for Managers and Investors. National Association of Accountants, 1972
- Roederer, P "Segment Reporting : A Step Forward or Backward?" Management Accounting, October 1977
- Rutherford, B "No Escaping the Long Arm of the Law". Accountancy, April 1989, pp 33

- South African  
Institute of  
Chartered Accountants      AC 115 : Reporting Financial Information  
by Segment, 1986
- South African  
Institute of  
Chartered Accountants      A Survey of Financial Reporting in South  
Africa 1988, Johannesburg, SAICA, 1988
- Steedle, LF      "Disclosure of Segment Information -  
SFAS No 14". The CPA Journal, October  
1983, pp 34 - 47
- Tevelow, R      "How a Security Analyst uses the Annual  
Report". Financial Executive, November  
1971, pp 18 - 21
- Thurstone, LL      The Measurement of Values. Chicago,  
University of Chicago Press, 1959
- Underhill, LG      Introstat. Juta and Co, Cape Town, 1981
- Wagner, R      "Segmented Reporting". Management  
Accounting, April 1976, pp 29 - 32
- Wallace, RSO and  
Mellor, CJ      "Non-response Bias in Mail Accounting  
Surveys : A Pedagogical Extension".  
British Accounting Review, Vol. 22, No  
1, 1990 pp 283 - 288
- Wallace, RSO and  
Mellor, CJ      "Non-response Bias in Mail Accounting  
Surveys : A Pedagogical Note". British  
Accounting Review, Vol. 20, No 2, 1988  
pp 131 - 139
- Watts, R and  
Zimmerman, J      "Towards a Positive Theory of the  
Determination of Accounting Standards".  
The Accounting Review, January 1978,  
pp 112 - 134

Woodruff, RL

"Human Resource Accounting". The  
Canadian Chartered Accountant Magazine,  
September 1970, pp 2 - 7

Youngman, MB

Designing and Analysing Questionnaires.  
Rediguide 12 : Guides in Educational  
Research. University of Nottingham,  
March 1982

**APPENDIX A****ACCOUNTING STATEMENTS ON SEGMENTAL REPORTING**

Numerous Accounting Standard Setting Bodies have issued statements on segmental reporting. The statements are essentially very similar in content. Four statements that are representative of the various national pronouncements are analysed below in a manner that highlights the main differences between them. It should be noted that the analysis is in a summarised format and the reader is referred to the statements for an indepth analysis.

The four statements analysed are the following:

- i) SFAS 14 - Statements of Financial Accounting Standards No 14 - "Financial Reporting for Segments of a Business Enterprise", issued by the Financial Accounting Standards Board in the United States;
- ii) SSAP 25 - Statement of Standard Accounting Practice 25 - "Segmental Reporting", issued by the Accounting Standards Committee in the United Kingdom;
- iii) AC 115 - "Reporting Financial Information by Segment", issued by the South African Institute of Chartered Accountants;
- iv) IAS 14 - International Accounting Standard 14 - "Reporting Financial Information by Segment", issued by the International Accounting Standards Committee.

Refer to Appendix B for a copy of statement AC 115.

The main differences between the statements (as shown below) relate to the disclosure of export sales (turnover by destination), associated company disclosures, the determination of segment assets and the "seriously prejudicial" exemption clause.

<u>Requirements</u>	<u>Accounting Statement</u>			
	<u>SFAS 14</u>	<u>SSAP 25</u>	<u>AC 115</u>	<u>IAS 14</u>
<u>SCOPE</u>				
Applicability	All companies that are publicly traded	All public companies	All listed companies	All listed companies
	All SEC registrants	Large private companies	Economically significant enterprises	Economically significant enterprises
Exemptions	Immateriality	Immateriality If seriously prejudicial to interests of company	Immateriality If seriously prejudicial to interests of enterprise	Immateriality
<u>DISCLOSURE</u>				
Description of activities/ composition of segment	Required	Required	Required	Required
<u>Industry segments</u>				
Segment Result	Required	Required	Required	Required
Segment Turnover	Required	Required	Required	Required
Segment Assets	Required	Net assets for each segment to be disclosed (non-interest bearing operating assets less non-interest bearing operation liabilities)	Required	Required

<u>Requirements</u>	<u>Accounting Statement</u>			
	<u>SFAS 14</u>	<u>SSAP 25</u>	<u>AC 115</u>	<u>IAS 14</u>
<u>Geographic segments</u>				
Segment Result	Required	Required	Required	Required
Segment Turnover	Required by origin (1)	Required by origin	Required by origin	Required by origin
	Required by destination for domestic operations	Required by destination	Suggested by destination	Suggested by destination
Segment Assets	Required	Required	Required	Required
Basis for Inter-segment Pricing	Required	Not required	Required if necessary	Required
Extent of Inter-segment Transactions	Required	Required	Required if necessary	Required
Other disclosures	Capital expenditure	Company's share of the profits/losses of associated companies (if at least 20% of total results).		
	Depreciation			
	Equity in the net income from and investment in the net assets of associates/unconsolidated subsidiaries (provided such operations are vertically integrated with that segment's operations)	Company's share of the net assets of associated companies (if at least 20% of total assets)		
	Sales to major customers (if at least 10% of total)			

- (1) Origin of turnover is the geographical segment from which products or services are supplied. Destination of turnover is the geographical segment to which products or services are supplied.

RequirementsAccounting Statement3 SEGMENT IDENTIFICATION

	<u>SFAS 14</u>	<u>SSAP 25</u>	<u>AC 115</u>	<u>IAS 14</u>
Determined by	Management	Management	Management	Management
Reporting criteria	10% requirement (providing at least 75% coverage is obtained)	10% requirement	10% suggested	10% suggested
Common costs	Treated on a basis consistent with the nature of the cost	Treated on a reasonable basis by management	Treated on a reasonable basis	Treated on a reasonable basis
Common assets	Treated on a reasonable basis by management	Treated on a reasonable basis by management	Treated on a reasonable basis by management	Allocated if a reasonable basis for allocation exists

AC 115

## REPORTING FINANCIAL INFORMATION BY SEGMENT

### Contents

	paragraphs
Introduction	.01 - .03
Objective	.04
Definitions	.05 - .11
Explanatory notes	
Background	.12 - .17
Identification of reporting segments	.18 - .24
Intersegment revenues and expenses	.25
Segment result	.26 - .27
Segment assets	.28
Information reported	.29 - .33
Interim reports	.34
Statement of accounting practice	
Reporting financial information by segment	.35
Disclosure	.36 - .40
Transitional provisions	.41
Effective date	.42

AC 115

## GENERALLY ACCEPTED ACCOUNTING PRACTICE

**Introduction**

- .01 This statement deals with reporting financial information by segments of an enterprise, specifically by different industries and by different geographical areas in which the enterprise operates.
- .02 The requirements of this statement apply to listed companies and to other economically significant enterprises whose financial statements are widely available. Where, in the opinion of management, the disclosure of any information required by this statement would be seriously prejudicial to the interests of the enterprise, that information need not be disclosed, but the fact that any such information has not been disclosed must be stated.
- .03 When both parent company and consolidated financial statements are presented, segment information need be presented only in respect of the consolidated financial statements.

**Objective**

- .04 The objective of reporting financial information by segment is to provide users of financial statements with information to assist them in assessing the relative size, contribution, and growth trend of the different industries and geographical areas in which an enterprise operates.

**Definitions**

- .05 **Segments of an enterprise** are industry and geographical components whose activities, assets and results of operations are clearly distinguishable physically, operationally and for financial reporting purposes, from the other activities, assets and results of operations of the enterprise.
- .06 **Industry segments** are the distinguishable components of an enterprise each engaged in providing a different product or service, or a different group of related products or services, primarily to parties outside the enterprise.
- .07 **Geographical segments** are the distinguishable components of an enterprise each engaged in operations in individual countries or groups of countries within particular geographical areas as may be determined to be appropriate to the particular circumstances of an enterprise.
- .08 **Segment revenues** are revenues that are directly attributable to a segment, or the relevant portion of revenues that can be allocated on a reasonable basis to a segment, and that are derived from transactions

## REPORTING FINANCIAL INFORMATION BY SEGMENT AC 115

with parties outside the enterprise and from other segments of the same enterprise.

**Segment expenses** are expenses that are directly attributable to a segment or the relevant portion of expenses that can be allocated on a reasonable basis to a segment, and that are derived from transactions with parties outside the enterprise and from other segments of the same enterprise.

**Segment result** is the difference between segment revenues and segment expenses.

**Segment assets**, for the purpose of this statement, are the assets net of non interest bearing liabilities that are directly attributable to a segment or the relevant portion of assets and non interest bearing liabilities that can be allocated on a reasonable basis to a segment.

### Explanatory notes

#### Background

Users of financial statements need segment information to assist in assessing the prospects and risks of a diversified enterprise which may not be determinable from the aggregated data.

Segment information is not intended to convey the impression that such segments may be considered as independent businesses or that comparisons between similarly labelled segments of different enterprises would necessarily be valid.

Reporting segment information involves decisions that are based in part on judgement. Such decisions include the identification of segments and the allocation of revenues, expenses and assets to those segments. Disclosure of information about the bases used in the preparation of financial information by segment may enhance the user's understanding of the resulting data.

Concern is sometimes expressed that disclosing financial information by segment may weaken an enterprise's competitive position because more detailed information is made available to competitors, customers, suppliers and others. For this reason, some consider it appropriate to allow the withholding of certain segment information where disclosure is deemed to be seriously prejudicial to the enterprise. Others believe that this difficulty is overstated and that the type of information that might be disclosed is not likely, in most cases, to be sufficiently detailed to cause commercial problems. They believe that this disclosure is no more

prejudicial to the diversified enterprise than is the disclosure of the information required of an enterprise operating in only one industry or geographical area. Also, analysis by segment of the aggregated financial information of a diversified enterprise is generally deemed to provide useful data that assists users in making a better assessment of the past performance and future prospects of the enterprise.

- .16 The information reported is a disaggregation of financial information included in the financial statements of the enterprise. Accordingly, the segment information reported with respect to the consolidated financial statements is based on information included in the consolidated financial statements, not information reported in the individual financial statements of each subsidiary.
- .17 Enterprises do not usually report by segment financial information pertaining to associated companies and nonconsolidated subsidiaries.

#### **Identification of reporting segments**

- .18 Industry and geographical segments are the usual bases for presenting information on operations by segment. An enterprise would provide information on both bases if both were relevant to its operations.
- .19 Industry segment information is usually presented on the basis of general groupings of related products and services, or by types of customers.
- .20 Geographical segment information is presented sometimes on the basis of the location of operations of the enterprise, sometimes on the basis of markets and sometimes on both. The domestic operations of an enterprise are generally considered to be a separate geographical segment. Where sales of products and services by domestic operations of an enterprise to foreign customers outside the enterprise are significant, the amount of such export sales is usually disclosed.
- .21 Where an enterprise trades with a single or relatively small number of customers, one industry or a government body, such information is usually disclosed. Specific information about the identity of individual customers or the importance of individual customers in each of the markets concerned is not usually given.
- .22 No single set of characteristics is universally applicable in determining industry and geographical segments of all enterprises, nor is any single characteristic determinable in all cases. Consequently determination of industry and geographical segments of an enterprise must depend to a

## REPORTING FINANCIAL INFORMATION BY SEGMENT AC 115

considerable extent on the judgement of the management of an enterprise. Broad categories such as manufacturing, wholesaling, retailing and consumer products are not in themselves indicative of the industries in which an enterprise operates.

Organisational groupings, such as divisions or subsidiaries, are usually .23 created according to management requirements. Such groupings often correspond with the determinable segments of the enterprise, thus facilitating the reporting of financial information by segment. Where this is not so, the reporting of financial information by segment may require reclassification of financial information.

It is appropriate to establish guidelines in terms of which a segment is .24 considered material before it is reported separately and to limit the segments to a reasonable number so as to avoid unnecessary complexity. Such guidelines may be 10 per cent of turnover, operating profit or total assets, although such quantitative guidelines are not the sole factors in identifying segments for reporting.

### **Intersegment revenues and expenses**

Intersegment sales and other intersegment operating revenues and in- .25 tersegment expenses are reported on the basis on which the enterprise accounts for them internally. Disclosure of the amount of such revenues and expenses is useful and an explanation of the intersegment pricing basis (such as fair market value, cost or market price less a discount) is made when it is significant to a proper appreciation of the segment information.

### **Segment result**

The measure of the profitability of a segment is disclosed as the segment .26 result and generally reflects net operating income or loss, although other bases are sometimes more appropriate. Interest earned and interest expense are not normally included in the segment result unless operations of the segment are primarily of a financial nature. For this reason it is not appropriate to draw comparisons between the various segments, particularly where the value of assets employed in each of the segments varies significantly. Taxes on income, outside owners' interests, extraordinary items and financial information relating to associates and nonconsolidated subsidiaries are also not usually included in the segment result.

Where revenues and expenses are not directly attributable to a segment .27 but a reasonable basis for allocation exists, they may be allocated

AC 115                    **GENERALLY ACCEPTED ACCOUNTING PRACTICE**

thereto on that basis. In many enterprises, however, common items such as head office expenses are not allocated to individual segments because they are not shared in such a way that any allocation among the segments is considered useful.

**Segment assets**

- .28 The disclosure of segment assets indicates the resources employed in generating segment operating results. Such assets include all tangible and intangible assets and all non interest bearing liabilities that can be identified with a particular segment. Assets shared by two or more segments may be allocated between or among those segments if a reasonable basis exists for such allocation. Interest bearing liabilities are generally not allocated either because they are considered to relate to the enterprise as a whole or because they are viewed as having a financing rather than an operating result. Where a segment result is arrived at after interest and finance charges, it may be appropriate to allocate interest bearing liabilities on the same basis.

**Information Reported**

- .29 The financial statements of an enterprise normally disclose a description of the activities of each reported industry segment and an indication of the composition of each reported geographical segment.
- .30 The disclosure of the following information, expressed either in monetary terms or as percentages of the consolidated totals, for each reported segment in the annual financial statements of an enterprise, is generally considered appropriate:
- sales or other operating revenues
  - segment result
  - segment assets employed.
- .31 The relationship between the sum of the information on individual segments and the aggregated information in the financial statements is clarified by providing reconciliations where necessary.
- .32 Other information such as depreciation, depletion, amortisation, research and development and capital expenditures for the period is sometimes disclosed for each segment. Disclosure of non-financial information, such as the number of employees for each reported segment, is also useful.

## REPORTING FINANCIAL INFORMATION BY SEGMENT AC 115

Consistency of analysed information is important. Accordingly .33 comparative amounts are restated, unless this is not practical, following a change which has a material impact on the segment information in either:

- identification of segments
- the accounting practices used in reporting segment information
- the accounting policies of segments.

In such circumstances, a description of the nature of the change and an explanation of the reasons for the change are also disclosed.

### Interim reports

It is desirable for enterprises to include in their interim reports financial .34 information for the industry and geographical segments which are significant to the enterprise.

### Statement of accounting practice

#### Reporting financial information by segment

Enterprises to which this statement applies should report in the financial .35 statements the segment information described in paragraphs .36 — .40 for both industry and geographical segments. When both parent company and consolidated financial statements are presented, segment information need be presented only in respect of the consolidated financial statements.

#### Disclosure

The enterprise should describe the activities of each reported industry .36 segment and indicate the composition of each reported geographical area.

For each reported industry and geographical segment, the following fi- .37 nancial information, expressed either in monetary terms or as percentages of the consolidated totals, should be disclosed:

- sales or other operating revenues
- segment result
- segment assets employed.

When it is necessary for a proper appreciation of the segment infor- .38 mation the extent to which revenue and expenses are derived from in-

**AC 115                      GENERALLY ACCEPTED ACCOUNTING PRACTICE**

intersegment transactions and the basis of intersegment pricing should also be disclosed.

.39 Where necessary the enterprise should disclose reconciliations between the sum of the information on individual segments and the aggregated information in the financial statements.

.40 Changes in:

- identification of segments
- the accounting practices used in reporting segment information
- the accounting policies of segments

which have a material effect on segment information should be disclosed. Such disclosure should comprise a description of the nature of the change, an explanation of the reasons for the change and, unless this is not practical, a restatement of comparative amounts.

**Transitional provisions**

.41 No comparative figures need be presented in the first period in respect of which this statement is introduced if such information is not readily available.

**Effective date**

.42 The requirements set out in this statement should be applied as soon as possible and regarded as standard for financial statements covering all periods commencing on or after 1 July, 1986.

GENERAL

1. Do you publish consolidated financial statements?

Yes	42
No	-

Page 59

2. If you do publish consolidated financial statements,

- how many subsidiaries do you consolidate?

.....

- are any subsidiaries excluded?

Yes	11
No	31

Page 59

- If any subsidiaries are excluded, on which basis do you account for them.

COST?  
EQUITY?  
ALTERNATIVE? (Para 55-59 of 4th Schedule)

3
4
4

Page 60

3. Do you publish segmental information in your annual report?

Yes	29
No	13

Page 60

4. Do you disclose for each industry segment.

a) TOTAL ASSETS?	Yes	15	No	14
b) TURNOVER?	Yes	26	No	3
c) OPERATING PROFIT?	Yes	24	No	5

Table 1

Page 60

Do you disclose for each geographic segment.

d) TOTAL ASSETS?	Yes	<input type="text" value="1"/>	No	<input type="text" value="28"/>
e) TURNOVER?	Yes	<input type="text" value="2"/>	No	<input type="text" value="27"/>
f) OPERATING PROFIT?	Yes	<input type="text" value="2"/>	No	<input type="text" value="27"/>

Table 2  
Page 62

- If you answered NO to any of the above disclosures, a to f, please indicate, using right hand box to identify the item not disclosed, why you do not disclose segmental information.

DIFFICULT TO CALCULATE/DISCLOSE?	Yes	<input type="text" value="7"/>	No	<input type="text"/>	<input type="text"/>
NOT APPLICABLE?	Yes	<input type="text" value="10"/>	No	<input type="text"/>	<input type="text"/>
PREJUDICIAL TO THE COMPANY?	Yes	<input type="text" value="19"/>	No	<input type="text"/>	<input type="text"/>
INSIGNIFICANT?	Yes	<input type="text" value="6"/>	No	<input type="text"/>	<input type="text"/>
WILL BE MISUNDERSTOOD BY USER?	Yes	<input type="text" value="3"/>	No	<input type="text"/>	<input type="text"/>

Page 61

OTHER (Please specify) .....  
.....

- Where do you disclose segmental information.

NOTES?	Yes	<input type="text" value="3"/>	No	<input type="text"/>
DIRECTORS REPORT?	Yes	<input type="text" value="22"/>	No	<input type="text"/>
INCOME STATEMENT?	Yes	<input type="text" value="-"/>	No	<input type="text"/>

Table 4  
Page 64

OTHER (Please specify) .....  
.....

B. SPECIFIC PROBLEMS/ISSUES

a) Segment Identification

1. For internal reporting purposes, how do you distinguish divisions/segments.

ORGANISATIONAL UNITS?	Yes	<input type="text" value="32"/>	No	<input type="text" value="10"/>
LEGAL ENTITIES?	Yes	<input type="text" value="14"/>	No	<input type="text" value="28"/>
PRODUCT LINES/SERVICES?	Yes	<input type="text" value="18"/>	No	<input type="text" value="24"/>
GEOGRAPHICALLY?	Yes	<input type="text" value="12"/>	No	<input type="text" value="30"/>

Table 5  
Page 67

OTHER (Please specify) .....

2. For each segment/division identified for internal reporting purposes, do you identify.

TURNOVER FOR THAT SEGMENT/DIVISION ?	Yes	<input type="text" value="41"/>	No	<input type="text" value="1"/>
TOTAL ASSETS FOR THAT SEGMENT/DIVISION?	Yes	<input type="text" value="38"/>	No	<input type="text" value="4"/>
OPERATING PROFIT/LOSS FOR THAT SEGMENT/DIVISION?	Yes	<input type="text" value="42"/>	No	<input type="text" value="-"/>

Table 6  
Page 69

3. Is there is a minimum percentage point (in terms of Turnover, Total Assets, or Operating Profit) for a segment/division before it becomes reportable for internal reporting purposes?

Yes	<input type="text" value="3"/>
No	<input type="text" value="39"/>

Page 70

If so, at what percentage point does it become reportable.

	<u>TURNOVER</u>	<u>TOTAL ASSETS</u>	<u>OPERATING PROFIT</u>
0 - 5% ?			
5 - 10% ?	3		
10 - 20% ?			
>20% ?			

Page 70

4. Do you think external users (in particular financial/investment analysts) would have difficulty in interpreting your operating data used for internal reporting purposes?

Yes	5
No	36

Table 7  
Page 71

b) Segment Operating Profit

1. For internal reporting purposes, how do you account for cost of goods sold.

DIRECT COSTING? Yes  19 No

ABSORPTION COSTING?  
(i.e. including fixed overhead) Yes  16 No

OTHER (Please specify) 7

Table 8  
Page 72

2. Which of the following items do you include in cost of goods sold.

DIRECT LABOUR? Included  32 Excluded

DIRECT MATERIALS? Included  35 Excluded

DIRECT MANUFACTURING EXPENDITURE? Included  32 Excluded

INDIRECT MANUFACTURING EXPENDITURE? Included  25 Excluded

3. For internal reporting purposes, do you allocate directly the following expenses to segments/divisions.

ADMINISTRATION?	Yes	<input type="text" value="31"/>	No	<input type="text" value="11"/>
RESEARCH/DEVELOPMENT?	Yes	<input type="text" value="28"/>	No	<input type="text" value="14"/>
ADVERTISING?	Yes	<input type="text" value="31"/>	No	<input type="text" value="11"/>
OTHER SELLING EXPENSES?	Yes	<input type="text" value="32"/>	No	<input type="text" value="10"/>
INTEREST?	Yes	<input type="text" value="28"/>	No	<input type="text" value="14"/>
TAXES?	Yes	<input type="text" value="22"/>	No	<input type="text" value="20"/>
DEPRECIATION?	Yes	<input type="text" value="33"/>	No	<input type="text" value="9"/>

Table 9  
Page 74

4. Do you find it misleading to allocate any of the above expenses to a segment/division?

Yes	<input type="text" value="6"/>
No	<input type="text" value="30"/>

Table 10  
Page 75

If yes, please specify which expenses?

.....

.....

.....

c) Segment Turnover

1. For internal reporting purposes, are inter-segment/division sales.

EXCLUDED FROM THE ANALYSIS?	<input type="text" value="12"/>
INCLUDED IN THE ANALYSIS?	<input type="text" value="22"/>

Table 11  
Page 76

2. Which basis is used to determine inter-segment/division selling prices.

NORMAL SELLING PRICE?

COST PRICE?

A TRANSFER PRICE AGREED TO BY TOP MANAGEMENT OF THE DIVISIONS/ SEGMENTS INVOLVED?

OTHER (please indicate) .....

Table 12  
Page 77

d) Segment Assets

1. For internal reporting purposes, what percentage of total assets can be identified with specific segments/divisions.

< 50% ?	<input type="text" value="2"/>
50 - 60% ?	<input type="text" value="-"/>
60 - 70% ?	<input type="text" value="1"/>
70 - 80% ?	<input type="text" value="-"/>
80 - 90% ?	<input type="text" value="-"/>
> 90% ?	<input type="text" value="39"/>

Page 78

3. For internal reporting purposes, do you allocate directly the following balance sheet items to segments/divisions.

DEBTORS? Yes  No

CREDITORS? Yes  No

TOTAL ASSETS? Yes  No

FIXED ASSETS? Yes  No

STOCK? Yes  No

Table 13  
Page 78

4. Do you find it misleading to allocate any of the above balance sheet items to a segment/division?

Yes

2

No

36

Page 79

If yes, please specify which balance sheet items?

.....  
.....

C. STATEMENT OF GENERALLY ACCEPTED ACCOUNTING PRACTICE AC 115  
"REPORTING FINANCIAL INFORMATION BY SEGMENT"

AC 115 requires a segmental breakdown of assets, turnover and 'segment result' for each industrial segment and each geographical area within which the company operates.

1. Do you comply with the requirements of AC 115?

Yes

14

No

26

Table 14

Page 80

If not, please give reasons for why you do not comply with AC115.

.....  
.....

2. Do you think that AC 115 requires.

TOO LITTLE SEGMENTAL DISCLOSURE?

1

Table 15

JUST ENOUGH SEGMENTAL DISCLOSURE?

29

Page 81

TOO MUCH SEGMENTAL DISCLOSURE?

10

ANY ADDITIONAL COMMENTS.....

.....  
.....

3. Do you find fulfilling the disclosure requirements of AC 115 (i.e. extracting the necessary information).

EASY TO PERFORM?

23

Table 16

DIFFICULT BUT NEVERTHELESS POSSIBLE?

10

Page 81

EXTREMELY DIFFICULT?

5

4. Do you regard having to comply with AC 115 disclosure requirements in their entirety as being competitively prejudicial to your company?

Yes

22

Table 17

No

19

Page 82

If so, please indicate why.....

5. Do you think that investors are able to make better decisions on the basis of segmental information?

Yes

28

Table 18

No

8

Page 84

Uncertain

6

6. What is your overall attitude towards segmental disclosure.

FAVOURABLE?

18

Table 19

QUALIFIED APPROVAL?

11

Page 84

NEUTRAL?

8

OPPOSED?

5

STRONGLY OPPOSED?

-

NO COMMENT?

-

2. If your views expressed in this questionnaire vary significantly with your company's views, please indicate this difference below,

.....  
.....  
.....  
.....

3. Please indicate your position within your organisation.

.....  
.....  
.....

THANK YOU VERY MUCH FOR TAKING THE TROUBLE TO FILL IN THIS QUESTIONNAIRE. PLEASE RETURN IT TO.

MR C D HEMUS  
12 ROSEVIEW  
LEVUBU ROAD  
EMMARENTIA  
2195

IN THE ENCLOSED STAMPED SELF ADDRESSED ENVELOPE.

PART I

1. Please rank the following characteristics in order of importance to you (1 being most important, 6 being least important) when considering an investment opportunity.

Profitability	2,7
Stability	4,1
Growth Potential	2,0
Managerial Ability	3,0
Financial Policy	5,3
Financial Position	3,9

Table 20  
Page 88

2. Please rank (1 being the most important, 5 being least important) the relative importance of sources of information to you when considering an investment opportunity.

Financial Statements	1,6
Press/Journals	3,2
Industry reports	3,3
Interviews/Discussions with management	1,9
Other (please specify)	

Table 21  
Page 92

PART II

1. If a company provides a segmental (divisional) break-down, when making an investment decision do you make use of the break-down.

all the time?

28

often?

6

some of the time?

1

not at all?

-

Table 22  
Page 94

2. Statement of Generally Accepted Accounting Practice AC 115 "Reporting Financial Information by Segment" requires a segmental break-down of assets, turnover and 'segment result' (ie segment income) for each industrial segment and each geographical area within which the company operates. Do you regard these requirements as:

More than sufficient?	4
Sufficient?	18
Somewhat insufficient?	13
Of no use at all?	-

Table 23  
Page 94

3. In your opinion, are companies complying with the requirements of AC 115?

Yes, completely	-
Yes, partly	24
No	11

Table 24  
Page 95

4. In your opinion, is a company prejudiced competitively by providing segmental information?

Yes	13
No	22

Table 25  
Page 96

If you answered yes, please give brief reasons why.....  
.....

5. Accounting Statement AC 11E allows non-disclosure of segmental information if such disclosure "would be seriously prejudicial to the interests of the enterprise." Do you agree that management of a company should be allowed to make this decision?

Yes, but only if the reasons for non-disclosure are given.

17

Table 26

Yes

5

Page 96

No

13

Any comments? .....

6. A segmental turnover analysis is often difficult because of inter-divisional sales. At what stage would you say inter-divisional sales become material and should be excluded from the segmental analysis.

- 0 - 5% ?
- 5 - 8% ?
- 8 - 10% ?
- 10 - 15% ?
- > 15% ?

4
7
5
8
11

Table 27

Page 98

7. A segmental asset analysis is often difficult because of the allocation of assets common to two or more segments. In overcoming these problems, do you think the provider of information should.

Allocate the common assets to segments to the best of their ability, but nevertheless subjectively?

30

Table 28  
Page 99

Ignore the common assets and show only directly attributable assets?

4

Some other method (please specify) |

8. A 'segment result' (ie. segment income) analysis is often difficult because of expenses that either are fixed or common to all segments (e.g. Head Office expenses) and therefore have to be allocated on some basis. In overcoming this difficulty, do you think the provider of information should.

Allocate the costs to segments to the best of their ability, but nevertheless subjectively?

29

Table 28  
Page 99

Ignore the common and fixed costs and allocate only those costs that are directly attributable to a segment?

5

Some other basis (please specify) |

9. In your opinion, should segment income be a defined income figure? (e.g. sales less direct expenses)

Yes	26
No	9

Table 29  
Page 100

10. Do you regard a geographical segmental analysis (ie. a break down of results into geographically significant areas) as important?

Yes	29
No	6

Page 102

11. Which basis should be used for determining geographical segments.

Regional/Provincial? 

6
---

Table 31

International? 

11
----

Page 103

Both? 

17
----

Other (please specify) ..... 1 .....  
.....  
.....  
.....

12. Which is a more useful segmental analysis to you.

Geographical segments?	2
Industry segments?	23
Neither - equally useful?	10

Table 30  
Page 102

3. In your opinion, should segmental information be audited?

Yes	25
No	10

Page 103

4. Which of the following would you find useful in a segmental analysis based on industries/product line. (Please rank your selection - the most useful being ranked one)?

Turnover	2,6
Operating Income	2,7
Selling Expenses	8,3
Administration expenses	10,2
Research & Development expenditure	10,7
Taxes paid	8,3
Interest paid	7,5
Debtors	10,0
Creditors	10,6
Total Assets	6,9
Fixed Assets	9,4
Stock	9,0
A defined Income figure (e.g. sales less direct expenses)	6,5
Depreciation	10,2
Units produced	9,8
Extraordinary items	13,3
Other (please specify) .....	
.....	
.....	

Table 34  
Page 106

5. Which of the following would you find useful in a segmental analysis based on geographical area? (Please rank your selection).

Turnover	2,0
Operating Income	2,7
Selling Expenses	7,0
Administration expenses	8,8
Research & Development expenditure	9,2
Taxes paid	7,3
Interest paid	7,6
Debtors	8,4
Creditors	9,2
Total Assets	5,9
Fixed Assets	8,7
Stock	8,1
A defined Income figure (eg. sales less direct expenses)	6,3
Other (please specify) .....	
.....	
.....	

Table 35  
Page 106

16. Is segmental information (as required by AC 115 "Reporting Financial Information by Segment") as valuable as consolidated data to you?

Yes	24
No	11

Table 33  
Page 105

GENERAL

Please indicate which best describes your level of knowledge and understanding of accounting information.

Thorough knowledge and understanding of all accounting policies and procedures. 12

Working knowledge and understanding of all accounting policies and procedures. 15

Basic knowledge and understanding of all accounting policies and procedures. 8

2. Please provide some information of what segmental analysis you would like.

.....  
.....  
.....  
.....  
.....  
.....  
.....

3. Please provide some information as to how you make use of segmental information.

.....  
.....  
.....  
.....  
.....  
.....  
.....

THANK YOU VERY MUCH FOR TAKING THE TROUBLE TO FILL IN THIS QUESTIONNAIRE. PLEASE RETURN IT TO. MR C D HEMUS, 12 ROSEVIEW, LEVUBU ROAD, EMMARENTIA, 2195, IN THE ENCLOSED STAMPED SELF ADDRESSED ENVELOPE.



## Department of Accounting

Leslie Commerce Building  
Engineering Mall - Upper Campus  
OR Private Bag - Rondebosch 7700  
Tel: 650-2269  
Telex: 57-21439  
Tel. Add.: ALUMNI, Cape Town  
Fax No: (021) 650-3726

12 February 1990

The Financial Director  
Seardel Investment Corporation Ltd.  
Private Bag X25  
CLAREMONT  
7735

Dear Sir/Madam

I am conducting a research study on segmental reporting for the degree of Master of Commerce at the University of Cape Town. In particular, I am addressing the requirements of users of financial statements with regard to segmental reporting and the adequacy of Accounting Statement AC 115.

I would be grateful if you would complete the enclosed questionnaire to be used in this study.

Your confidentiality in this matter is assured.

Once the questionnaire has been completed, please return it to me in the enclosed stamped addressed envelope.

Your assistance in this matter is greatly appreciated.

Yours faithfully

C D HEMUS  
12 Roseview  
Levubu Road  
Emmarentia

UNIVERSITY OF CAPE TOWN

**Department of Accounting**

Leslie Commerce Building  
Engineering Mall · Upper Campus  
OR Private Bag · Rondebosch 7700  
Tel: 650-2269  
Telex: 57-21439  
Tel. Add.: ALUMNI, Cape Town  
Fax No: (021) 650-3726

12 February 1990

Dear Sir/Madam

I am conducting a research study on segmental reporting (divisional analysis) for the degree of Master of Commerce at the University of Cape Town. In particular, I am addressing the requirements of users of financial statements with regard to segmental reporting and the adequacy of the Accounting Statement AC 115 on segmental reporting.

I would be grateful if you would complete the enclosed questionnaire to be used in this study.

Your confidentiality in this matter is assured.

Once the questionnaire has been completed, please return it to me in the enclosed stamped addressed envelope.

Your assistance in this matter is greatly appreciated.

Yours faithfully

A handwritten signature in cursive script, appearing to read 'C D Hemus'.

C D HEMUS  
12 Roseview  
Levubu Road  
Emmarentia

12 Roseview  
Levubu Road  
Emmarentia  
2195

Tel: 782 1849

15 March 1990

Dear Sir/Madam,

Recently you had the opportunity to contribute meaningfully towards a research study on segmental (divisional) reporting in South Africa.

On 12 February 1990 I sent you a questionnaire in order to ascertain your opinion on the requirements of users of financial statements with regard to segmental reporting and the adequacy of Accounting Statement AC 115.

To date, I notice you haven't made use of your opportunity to express your views.

I know that you are busy, however, your opinion is valued and I would be grateful if you would complete the questionnaire and return it to me as soon as possible.

Should you require another copy of the questionnaire, do not hesitate to contact me.

Your assistance in this matter is greatly appreciated.

Yours faithfully

C D HEMUS