THE USE OF EARNINGS PER SHARE DISCLOSURES IN ANNUAL
FINANCIAL STATEMENTS BY MANAGERS OF SOUTH AFRICAN
EQUITY UNIT TRUST PORTFOLIOS AS A PERFORMANCE
INDICATOR

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ABSTRACT

The earnings per share ratio is often quoted in financial publications as an indictor of how well a company has performed financially. However, there is much controversy over the usefulness of earnings per share information, especially in respect of its potential for manipulation by the preparers of financial information. Recent changes to South African accounting standards through the International Harmonisation Project resulted in a revision of the Statement of Generally Accepted Accounting Practice 104: Earnings per Share (AC104). Significant changes to the method of calculation and disclosure of both basic and diluted earnings per share were implemented.

Unit trusts have gained popularity in South Africa over the past decade. Members of the public prefer to invest on the Johannesburg Stock Exchange through intermediaries such as unit trusts rather than undertake investment decisions personally. Unit trust portfolio managers are in an important and a responsible position: they wield significant power on the stock exchange with their daily dealings in shares but they also carry the responsibility of making sound investment decisions.

Research has tended to focus more on earnings than earnings per share. A review of literature and prior research revealed several controversial issues: the usefulness of earnings in making investment decisions, the susceptibility of both earnings and earnings per share to manipulation, the predictive value of earnings, the use of earnings in the valuation of securities and the use of earnings and earnings per share in performance measurement.

The research problem was thus developed as follows: are the earnings per share disclosures of South African listed companies sufficient to meet the needs of equity unit trust portfolio managers in South Africa as a performance indicator, and if not, what additional information do they require?

In addressing the research problem, the following four objectives were formulated:

(i) to determine what changes have been made to earnings per share calculation and disclosure by the issue of the new AC104,

(ii) to determine what characteristics South African equity unit trust portfolio managers regard as indicative of a good financial performance indicator,

(iii) to determine what impact the changes made to the earnings per share calculation and disclosure by the new AC104 has had on the use of earnings per share information by South African unit trust portfolio managers as a performance indicator, and

(iv) to determine the extent of use of other similar performance indicators, such as headline earnings per share and cash flows per share, as compared to earnings per share.

In order to meet these objectives, it was necessary to conduct a survey of South African equity unit trust portfolio managers. The descriptive survey method was identified as being appropriate and a mailed survey was undertaken.

The main conclusions to this research were that:

(i) the characteristics of a useful performance indicator are related to reliability, consistency, comparability, adequate disclosure and ease of computation and understanding,

(ii) equity unit trust portfolio managers regard the changes to the calculation and disclosure of basic earnings per share to be improvements to the standard but their use of basic earnings per share as a performance indicator has remained unchanged,

(iii) equity unit trust portfolio managers regard the changes to the calculation and disclosure of diluted earnings per share to be improvements to the standard and their use of diluted earnings per share as a performance indicator has, as a result, increased,

(iv) headline earnings per share and diluted earnings per share are considered to be better performance indicators and are used more frequently as performance indicators than basic earnings per share.

Thus the research project achieved its objectives. In addition, interesting findings in respect of other issues were identified. Further areas for research were also identified.

DECLARATION

I declare that this thesis is my own, unaided work. It is being submitted in fulfilment of the requirements for the degree of Masters in Accountancy in the University of Natal. It has not been submitted before for any degree or examination in any other University.

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Y. Suliman

31 January 2000

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For my darling Mohammed

PREFACE

My sincere thanks go to Professor Rob Jackson for his guidance throughout the course of this research project, to Professor Lindsay Mitchell for his encouragement and support, and to all the unit trust portfolio managers who participated in the study.

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CHAPTER I: INTRODUCTION

1. BACKGROUND TO THE TOPIC

The earnings per share ratio is often quoted in financial publications as an indictor of how well a company has performed financially. It is regarded by some as the most useful piece of information that is disclosed in the financial statements of companies. It relates earnings to the number of shares in issue, providing a relative measure of how well a company has performed. This can be used, together with the market value per share, to derive a price-earnings ratio which can then be compared to the price-earnings ratios of other companies, giving investors a means of evaluating the different shares in their portfolios.

There is, however, much controversy over the usefulness of earnings per share information. In the past, the susceptibility of its calculation to manipulation was often considered to undermine its reliability as a performance indicator. The disclosures made by companies with regard to its calculation were also considered to be inadequate.

South African accounting standards are currently undergoing significant changes. The need to bring South African standards into line with international standards prompted the updating and re-issue of a number of Statements of Generally Accepted Accounting Practice, including the statement governing the calculation and disclosure of earnings per share (AC104). The new AC104 implemented several significant changes from its predecessor.

Unit trusts have gained in popularity in South Africa over the last decade. Large sectors of the population invest funds in unit trusts instead of dealing in shares themselves. This places unit trust portfolio managers in an

important and a responsible position; not only do they wield significant power on the stock exchange with their daily dealings in shares, but they also carry the responsibility of making sound decisions to enable them to yield adequate returns for their investors.

A recent research project surveyed South African equity unit trust portfolio managers with regard to the techniques that they use in appraising investments. It was found that earnings per share was the most used forecast factor. It was thus possible that the requirements of the new AC104 regarding the calculation and disclosure of earnings per share information may have an impact on the use of the ratio by South African unit trust portfolio managers as a performance indicator.

2.   OBJECTIVES OF THE RESEARCH

Based on the above, it was decided to survey South African equity unit trust portfolio managers as to their use of earnings per share information.

The objectives of this study are therefore:

(i)   to determine what changes have been made to earnings per share calculation and disclosure by the issue of the new AC104,

(ii) to determine what characteristics South African equity unit trust portfolio managers regard as indicative of a good financial performance indicator,

(iii) to determine what impact the changes made to the earnings per share calculation and disclosure by the new AC104 has had on the use of earnings per share information by South African unit trust portfolio managers as performance indicators, and

(iv) to determine the extent of use of other similar performance indicators, such as headline earnings per share and cash flows per share, compared to earnings per share.

3.   METHODOLOGY

In order to achieve the above objectives, a research methodology had to be identified that would result in meaningful responses being obtained from equity unit trust portfolio managers. The methodology would take into account the fact that unit trust portfolio managers have been surveyed previously with regard to their investment appraisal techniques. Consequently, a survey was undertaken of South African equity unit trust portfolio managers using the descriptive survey technique. Data was collected by means of mailed questionnaires.

4.   IMPORTANCE OF THE RESEARCH

There are two areas in which the research is considered important. First, the research represents a preliminary investigation into the impact of the new AC104 on the use of basic and diluted earnings per share as performance indicators. Second, unit trust portfolio managers are important users of the financial information disclosed by South African companies. It was considered that research into earnings per share information would enable generalisations to be drawn about the sufficiency of earnings per share information and about any improvements that could still be made to earnings per share information to make it more useful as a performance indicator.

5.   LIMITATIONS OF THE RESEARCH

A possible limitation arising out of the research is that it is not possible to evaluate results statistically.

6.   <u>LAYOUT OF THE REPORT</u>

The research project is set out in seven chapters:

(i)   chapter I: introduction to the research project,

(ii)   chapter II: a literature survey discussing authoritative pronouncements, prior research and journal articles,

(iii) chapter III: the development of the research problem from issues arising out of the literature survey,

(iv)   chapter IV: a discussion of the research methodology used to undertake the survey of equity unit trust portfolio managers,

(v)   chapter V: the results of the survey of equity unit trust portfolio managers,

(vi)   chapter VI: theoretical generalisations drawn from the results of the survey and answers to the research problems and sub-problems, and

(vii) chapter VII: a summary of the main research findings, areas for further research and the conclusion.

The questionnaire used in the survey of the equity unit trust portfolio managers is included as Appendix A.

CHAPTER II: LITERATURE SURVEY

1.   INTRODUCTION

Prior research has mainly concentrated on the issues surrounding the earnings component of the earnings per share calculation, rather than earnings per share.

This chapter begins with a summary of core issues addressed by certain authoritative pronouncements. This is followed by a review of research and journal articles. The chapter concludes with a summary of the research conducted to date in South Africa.

2.   AUTHORITATIVE PRONOUNCEMENTS

International Accounting Standard 33 "Earnings Per Share" (IAS33) and both the superseded and current South African Statements of Generally Accepted Accounting Practice 104 "Earnings Per Share" (AC104), were reviewed. IAS33 was issued by the International Accounting Standards Committee in January 1997. It was the first international statement issued on the subject of earnings per share. The current AC104 was issued as part of the South African Accounting Practices Committee's Harmonisation and Improvements Project during October 1998. The Harmonisation and Improvements Project was undertaken in South Africa to bring South African accounting standards in line with international standards. In principle, there is no difference between the current AC104 and IAS33. In addition, the Accounting Issues Task Force Opinion 306 "Headline Earnings" (AC306) was reviewed.

This section commences with a discussion on the calculation of earnings per share. Then the requirements of the superseded AC104, the current AC104 and IAS33 are considered. The most significant differences between the superseded AC104 and the current AC104 and IAS33 are then summarised (Note: this summary is tabulated in tables 1 and 2). This section concludes with a discussion on the requirements of AC306.

2.1   The calculation of earnings per share

Earnings per share, as the name suggests, is calculated by dividing the after-tax earnings of a company by the weighted number of shares that were in issue for the year. This is referred to as the 'basic' earnings per share ratio.

In addition, all pronouncements reviewed also require a 'diluted' earnings per share figure to be calculated and disclosed. Diluted earnings per share is calculated after taking into account the effects of any financial instrument that may cause the basic earnings per share to decrease (be diluted) as a result of additional ordinary shares being issued in the future. Diluted earnings per share is an indication to shareholders of the effect of a potential future dilution on the current year's earnings per share figures.

For example, a company, which has awarded options to purchase shares at prices lower than fair value to its directors, would have a dilution in basic earnings per share once those options are exercised. The weighted number of shares would increase without an equal corresponding increase in resources, thus causing a decrease in the future basic earnings per share.

Similarly, where a company has in issue convertible preference shares or debentures, it would suffer a decrease in earnings per share once those instruments are converted into ordinary shares.

2.2   The superseded AC104

2.2.1 Application

This statement applied to all companies that are listed on a recognised stock exchange, as well as other companies whose shares are publicly traded or other companies which elect to disclose earnings per share. It does not apply to mining companies that use the appropriation method of accounting.

2.2.2 Objective of the statement

The objective of the statement, which was issued in January 1992, was to ensure that financial statements disclose earnings per share and fully diluted earnings per share in a meaningful and consistent manner.

2.2.3 Earnings

Earnings were defined as net income after tax, outside shareholders' interest and preference dividends but before extraordinary items and any transfers to reserves.

2.2.4 Weighted average number of shares

The weighted average number of shares is the number of shares determined by relating the portion of time during the year the shares have been issue and thus contributed to the earnings for the period. Guidance was given in the statement on the determination of the weighted average number of shares by showing how to deal with changes in the capital structure of the company. The statement offered guidance on how to deal with the

following possible changes to capital structure: share issues, rights issues at less than fair value, capitalisation issues, bonus issues, share splits, share consolidations, share issues in terms of conversion rights and reduction in equity capital.

2.2.5   Diluted earnings per share

The purpose of disclosing diluted earnings per share was to reflect the maximum dilution of basic earnings per share as if the dilution had already taken place. The statement listed circumstances that may possibly lead to the dilution of basic earnings per share in the future. These included outstanding options, contingent share issues, convertible instruments and deferred equity shares.

When calculating the diluted earnings per share, earnings should be adjusted for any changes that may occur due to the conversion of any instruments, for example, increasing earnings by the amount of dividends that no longer need to be paid on convertible preference shares. A conversion or exercise of rights which does not become effective or is unlikely to become effective within five years need not be considered as a dilutive factor when calculating the diluted earnings per share.

The statement recommended that the calculation of diluted earnings per share should be based on the conversion or exercise of rights that would have the most dilutive effect on the basic earnings per share. The calculation also excluded a potential conversion that may lead to an increase in the basic earnings per share, that is, a conversion that may have any anti-dilutive effect.

However, if there is a compulsory obligation to issue the equity in terms of the conversion, the exclusion became inoperative. So, in terms of the

statement, the diluted earnings per share figure could well be higher than the basic earnings per share.

2.2.6 Subsequent events

Where a company had a capitalisation issue, a share split, share consolidation or a reduction in shares without a corresponding reduction in resources after the end of the financial year but before the financial statements were approved for issue, both the basic and diluted earnings per share had to be adjusted and disclosed.

However, this adjustment was not mandatory, so companies could choose not to make the necessary adjustments.

2.2.7 Seasonal variations

Where earnings were of a seasonal nature, for example earnings of an ice-cream manufacturer, and shares were issued during the course of the financial year, earnings per share was calculated separately for the periods before and after the share issue and then aggregated to arrive at the earnings per share for the period.

2.3 The current AC104 and IAS33

2.3.1 Application

Like the superseded AC104, these statements apply to all companies whose shares are publicly traded, especially listed companies, as well as other companies who voluntarily disclose earnings per share information.

2.3.2   Definitions

Definitions are provided for the following terms: ordinary shares, potential ordinary shares, warrants or options. In addition the following terms were adopted from the statement on Financial Instruments Disclosure and Presentation (AC125): financial instruments, equity instrument and fair value. These terms are given the same meanings as contemplated in the superseded AC104 and only serve to clarify the meanings than to change them.

2.3.3   Basic earnings per share

The earnings figure used in the calculation of basic earnings per share is the net profit or loss for the period attributable to ordinary shareholders after deducting preference share dividends.

Earnings are therefore defined as net income after tax, outside shareholders' interest, preference dividends *and* extraordinary items. This constituted a significant difference from the superseded AC104, which excluded extraordinary items from the definition of earnings.

The weighted average number of shares is the number of shares determined by relating the portion of time during the year the shares have been issue and thus contributed to total earnings for the period.

The requirements of the superseded AC104 regarding changes in equity structure have remained unaltered by the current South African and International statements. The current statements, however, set out in much greater detail how to calculate the weighted average number of shares where there has been a share issue for a price less than fair value per share.

2.3.4   Diluted earnings per share

The diluted earnings per share ratio is treated with the same importance as basic earnings per share and is required to be disclosed with equal prominence.

The earnings figure used in the calculation of diluted earnings per share should be adjusted for any changes that may occur due to the conversion of any instruments, for example, increasing earnings by the amount of dividends that no longer need to be paid on convertible preference shares.

The weighted average number of shares used in the calculation should include the extra number of shares that would result from the conversion or exercise of a dilutive instrument. The statements require a determination of the order in which to include dilutive securities in the calculation of the weighted average number of shares. In considering whether potential ordinary shares are dilutive or not, each issue of the potential ordinary shares must be considered separately rather than in aggregate. This is because the sequence in which each issue is considered could affect their status as dilutive or not. The calculation requires a step-wise method whereby the most dilutive instrument is taken into account first. Any issue which then results in an increase, rather than a decrease, in the diluted earnings per share is regarded as 'anti-dilutive' and is thus excluded from the calculation.

These statements also require a reconciliation between the earnings used in the diluted earnings per share calculation to the net profit or loss for the period to be performed and disclosed. In addition, a reconciliation between the weighted average number of shares used in the diluted earnings per

share calculation to that used in the basic earnings per share calculation is required.

2.3.5 Restatement

Like the superseded AC104, where there has been capitalisation issues, share splits and other issues of shares that do not result in a corresponding increase in resources, the extra number of shares are treated as if they had always been in issue, and prior year earnings per share figures, both basic and diluted, should be adjusted accordingly.

Where a company has had a capitalisation issue, a share split, share consolidation or a reduction in shares without a corresponding reduction in resources after the end of the financial year but before the financial statements have been approved for issue, it is mandatory that both the basic and diluted earnings per share should be adjusted for the change in the number of shares.

2.4 Summary of significant differences

The differences between the superseded AC104 and the current AC104 and IAS33 are summarised in a tabular format in tables 1 and 2.

Table 1: Differences in basic earnings per share

Superseded AC104	Current AC104 and IAS33
Earnings are defined as net income after tax, outside shareholders' interest and preference dividends but before extraordinary items.	Earnings are defined as net income after tax, outside shareholders' interest, preference dividends *and* extraordinary items.
If earnings were seasonal in nature, earnings had to be adjusted for seasonal variations.	No requirement to adjust for seasonal variations in earnings.
It was recommended that earnings per share be adjusted retrospectively for certain changes in capital structure (e.g. capitalisation share issues) after year end but before approval of the financial statements.	It is mandatory for earnings per share to be adjusted retrospectively for certain changes in capital structure (e.g. capitalisation share issues) after year end but before approval of the financial statements.

Table 2: Differences in diluted earnings per share

Superseded AC104	Current AC104 and IAS33
No requirement as to the disclosure of diluted earnings per shares as compared to basic earnings per share.	Diluted earnings per share must be disclosed with equal prominence to basic earnings per share.
Required that the effect of anti-dilutive instruments be ignored, except where there was a compulsory obligation to issue shares.	Requires the anti-dilutive potential ordinary shares to be ignored.
Did not require a reconciliation between earnings used in the calculation of the net profit, and between the weighted average number of shares used to calculate diluted earnings per share as compared to that used in the basic earnings per share calculation.	Requires a reconciliation between earnings used in the calculation of the net profit, and between the weighted average number of shares used to calculate diluted earnings per share as compared to that used in the basic earnings per share calculation.

2.5 Headline earnings (AC306)

In addition to other earnings per share disclosures, it was recommended by AC306 that companies disclose a headline earnings per share figure based on the guidelines of AC306. This opinion was issued by the Accounting Issues Task Force in response to the problem of fluctuation, from period to period, of basic earnings per share ratio. These fluctuations can be brought about by the inclusion of non-recurring items that were previously considered to be of an extraordinary nature as well as profits and losses of a capital nature in the determination of earnings to be used in the calculation of earnings per share, in one period and not in subsequent periods.

During March 1995, a revised version of the South African Statement of Generally Accepted Accounting Practice 103 "Net profit or loss for the period, fundamental errors and changes in accounting policies" (AC103) was issued. In this statement, the definition of an extraordinary item was narrowed to allow only a limited type of events to be classified as extraordinary. Examples of these limited events given by AC103 were the expropriation of assets and natural disasters. This resulted in a need for an additional ratio to indicate the performance of a company, hence the concept of headline earnings per share emerged.

AC306 recognises that the revised AC103 "calls into question the calculation of earnings per share...since the earnings number in AC104, which is intended to assist users of financial statements to assess a company's performance, hinges on the exclusion of the majority of those items that were previously reported as extraordinary." (AC306: para .02). It goes on to say that the earnings per share figure calculated may "be significantly more volatile than in the past." (AC306: para .03).

The definition of 'headline earnings' that was adopted in AC306 was that as defined by the Institute of Investment Management and Research in the United Kingdom.

It was decided that the headline earnings used to calculate the headline earnings per share ratio should have the following characteristics: it should be robust and factual, and should be a measure of the trading performance, excluding profits and losses of a capital nature. It is not, however, meant to be a definition of 'maintainable' earnings as used by financiers to value companies.

In the calculation of headline earnings per share, only the earnings component is affected by AC306. The weighted average number of shares remains that which would be calculated under the requirements of AC104.

Earnings are adjusted for profits or losses on non-recurring and capital items, for example:
- the termination of a discontinued operation,
- the sale of fixed assets or businesses,
- reorganisation efforts,
- the redemption of capital,
- prior year adjustments,
- provisions for future expenses,
- goodwill write-offs, and
- extraordinary items.

2.6   Summary

The review of the authoritative pronouncements have revealed that there are six significant differences between the requirements of the superseded and current pronouncements.

In addition, the need for an earnings figure that is impervious to the occurrence of non-recurring and capital items, has been highlighted.

3. **JOURNAL ARTICLES AND OTHER WRITINGS**

Hemus states that EPS [earnings per share] is a "widely used ratio by most user groups, in particular, financial analysts and financial press" (Hemus: p49).

Gleason in his article in the Financial Mail (December 1993: p45) states that: "A critical problem with EPS [earnings per share] is that it is so vitally important: analysts concentrate on EPS in arriving at judgements about a company's viability and future earnings potential. Important investment decisions may sometimes hinge on these conclusions. Yet, EPS must be among the most unreliable and undependable of figures. This is so because widely differing interpretations are applied in arriving at net income [i.e. earnings]."

Arriving at the earnings figure to be used in the earnings per share calculation is thus the main source of contention when the reliability of the earnings per share figure is being considered.

The denominator of the earnings per share calculation (the weighted average number of shares) is not subject to the same degree of controversy although it, too, can be used to change the earnings per share figure.

In this section, relevant readings regarding the earnings component of the earnings per share ratio will be considered.

3.1   The susceptibility of earnings to manipulation

Spacek (1972) in his paper on unsolved problems of accounting and financial reporting, discusses the use of discretion in the calculation of earnings. He cites an example of two companies with identical operating activities and reporting structures which can report widely varying earnings per share figures (Spacek: p 643). By altering certain accounting policies (for example, the treatment of research costs and the method of stock valuation) used by these companies he was able to calculate a range of possible earnings per share figures ranging from $0,06 to $1,79.

Thomson, in his article in Management Today (June 1995: p56), points out the dangers of using earnings per share as a measure of how a company has performed. He observes that in an effort to keep up the appearance of growth and continuing profits, companies became creative with their accounting, thus manipulating the earnings that they reflected in their annual reports.

Hakansson (1973) in his paper on an appraisal of empirical research in accounting for the period 1960 to 1970, commented on the role of earnings in accounting information and research. In his summary of the research conducted during that period, he pointed out several studies undertaken by researchers like Graber (1969) which suggest that the management of companies select accounting rules to smooth income. He also points out the study of Dyckman (1966) into the use of alternative accounting practices, where it was found that alternative methods of accounting produced different decisions by investors.

These observations bring into question the usefulness of the earnings figure. It must be noted, however, that the issue of the conceptual framework and

other authoritative statements on by accounting bodies have limited many of the practices that could have been used to manipulate earnings.

3.2 The usefulness of earnings in investment decisions

There have been a number of studies which have been critical of the usefulness of accounting figures in investment decisions. Ball and Brown (1972), in their study evaluating accounting income numbers, acknowledged the arguments of several researchers that "income numbers... lack "meaning" and are therefore of doubtful utility." (Ball and Brown: p610).

Against this background Ball and Brown attempted to determine if the net income figure was of any use to investors. The outcome they used as the predictive criterion to evaluate the usefulness of the earnings figure was the movement in security prices after the release of an income report. They concluded on the strength of their research that earnings figures are useful although the lack of timeliness of the disclosure of the information may impair their usefulness.

Bamber (1986), in her study of the information content of annual earnings releases, continued the work of several noteworthy researchers like Beaver, Clarke and Wright (1979) into the impact that earnings announcements have on investors' activities. Her study related the trading volume of securities to the magnitude of the earnings that were unexpected by investors. She found that a positive relationship between the magnitude of the unexpected earnings and the trading volume of the security, which was consistent with the findings of Beaver, Clarke and Wright (1979), suggesting that earnings announcements do contain information that is useful to investors.

Lev (1989) also conducted a study into the usefulness of earnings information. The objective of his research was to assess the usefulness of earnings to investors, based on the available returns/earnings research. In order to meet his objective, then, he reassessed past research evidence relating to returns and earnings.

Lev acknowledged that earnings was widely believed to be "the premier information item provided in financial statements", that financial analysts frequently express their beliefs in terms of earnings and that management decisions and compensation are often stated in terms of earnings (Lev: p155).

Lev also points out the views of those sceptical of the usefulness of earnings. He cites the difference between economic earnings and accounting earnings as found by researchers Fisher and McGowan(1983) and Fisher (1987), as well as the incidence of manipulation and fraud in the determination of earnings, identified by the National Commission on Fraudulent Financial Reporting (1987), as major deficiencies in earnings (Lev: p155).

Based on research he conducted, Lev found that the correlation between earnings and stock returns was very low and that the relationship between the two was very unstable. He concluded that the usefulness of earnings to investors was thus very limited.

Ball and Brown came under severe criticism for concentrating on the "bottom-line" (i.e. earnings), and ignored the many other figures disclosed in financial statements. In 1989, Brown was called upon to respond to remarks made by other researchers and critics. To defend his and Ball's focus on earnings, he used the work of Gonedes (1974) to illustrate why earnings was so important. Gonedes looked at six ratios among which were

financial leverage, asset turnover rate and earnings per share. His conclusion in that study was that, given the earnings per share number, the other numbers were jointly uninformative and explained little (Brown: p207).

Defeo (1986) in his study of the speed of the market reaction to earnings announcements concluded that not only did the market respond to earnings announcements, but that there was also a very small time lag between the earnings announcement and the response itself (Defeo: p349). This is yet more indication that, contrary to the findings of Lev, earnings figures do contain important information for investors.

3.3   Predictive value of earnings

Brealey and Lorie (1972) cite the finding of Green and Segall (1967), who studied the public forecasts of companies in the United States, that forecasting of earnings was not an easy task. Even the well-informed chief executive officers of companies, when forecasting future earnings, cannot make accurate forecasts (Brealey and Lorie: p598).

Lintner and Glauber (1972) in their study of earnings growth found some explanation for this. They found that earnings changes cannot be predicted by the study of previous changes. Instead, earnings were found to follow approximately a random walk (Lintner and Glauber: p 662). They point out that it would be foolish to predict future earnings solely on the basis on past earnings. Factors like good management and product and market position should also be taken into consideration.

On the other hand, Ou and Penman (1989) showed in their study that, while prices of securities lead the earnings i.e. one can predict earnings using the price-earnings ratio (as shown by researchers Beaver, Lambert, and Morse

(1980) and others in different studies), the information in prices that leads future earnings is actually contained in financial statements (Ou and Penman: p111). In other words, current earnings are of use in predicting future earnings figures.

3.4 The use of earnings and earnings per share in security valuation

Treynor (1972) in his article on earnings states that "[t]he main objective of financial accounting has slowly but surely become providing information for security analysis." (Treynor: p663). But, as he points out, analysts and accountants view earnings differently. Analysts treat earnings as an economic concept while accountants treat it as the result of matching income and expenses or as the change in equity during the period. He questions whether accounting earnings have any economic meaning at all and suggests controversies surrounding the determination of earnings will only disappear once the accounting earnings figure loses its central role in security valuation.

Easton (1985) studied the link between accounting earnings and security valuation (Easton: p54). He accepted that in a world of wealth-maximising investors, security prices were analogous to the present value of future benefits. In his study he found that there was a strong statistical significance in the association between accounting earnings and present value. In addition, he found that earnings information was useful in interpreting the informational content of current dividends - by using accounting earnings one would be able to determine whether future dividends would be sustainable. This is of some importance to analysts who use Gordon's dividend growth model as a means of valuing shares.

3.5 Use of earnings and earnings per share in performance measurement

There has long been concern over the use of earnings and earnings per share as the main indicators of performance. In the United Kingdom, the Accounting Standards Board issued a new statement FRED 1, "The structure of financial statements - Reporting of financial performance", during 1992 on the reporting of financial performance in order to shift the emphasis from net income to a "range of important components of financial performance." The reason for this was that "users should be aware that the performance of complex organisations cannot be summarised in a single number and that to obtain a proper understanding of such performance, knowledge of a range of aspects is required." (Eilbeck and Goodhead: p116).

O'Hanlon and Peasnell (1996) are also critical of accounting earnings and earnings per share. They argue that earnings per share encourages "myopic" behaviour and encourages the idea that shareholders are a costless source of funds. Instead they propose the use of economic profit and economic value-added, which is similar to the concept of residual income, as tools to assess the performance and value of a company.

3.6 The denominator of the earnings per share calculation

As pointed out previously, the denominator (the weighted average number of shares) of the earnings per share calculation is not subject to the same degree of controversy as the earnings component of the calculation. It can, however, be used to change the earnings per share figure. If the number of shares is decreased, the earnings per share increases.

This practice of changing earnings per share by adjusting the denominator was observed in the United States where several share buy-backs have

occurred. Smith in his article in Management Today (May 1995: p56), showed how, by buying back shares, companies reduced the number of shares they had in issue and thus increased their earnings per share figures. This usually occurs in companies that extra cash resources which they cannot invest properly for a suitably high return. These cash resources contribute little towards earnings, and returning the cash to shareholders by means of a share buy-back ensures that the approximately the same earnings figure is divided by a smaller number of shares to arrive at earnings per share.

Strictly this is not be a manipulation of the earnings per share figure, but careful timing of the share buy-back could result in better earnings per share figures being disclosed.

The current AC104 and IAS33 provide adequate guidance to calculate the weighted average number of shares.

3.7   Summary

The problematic issues surrounding earnings and earnings per share have been presented and discussed. It is clear that controversy abounds over the usefulness of earnings and hence earnings per share in the valuation of securities and in performance measurement.

4.   SOUTH AFRICAN RESEARCH

There have been two research undertakings in South Africa that are relevant to this research. Hemus and Mildenhall (1994) studied the impact of Exposure Draft 91 (which was subsequently issued as the revised AC103) on the earnings per share ratio as disclosed by South African companies while Fouche and Van Rensburg (1999) surveyed South African

unit trust portfolio managers with regard to their investment appraisal techniques. Each of these research studies is discussed separately.

4.1   Hemus and Mildenhall (1994)

4.1.1   Motivation for the research

During 1993, the South African Institute of Chartered Accountants issued Exposure Draft 91 (ED91). ED 91 set out several changes to AC103 which governed the calculation and disclosure of items appearing in the income statements of companies. The most significant change brought about by ED91 was the narrowing of the definition of 'extraordinary items' to prevent companies from manipulating earnings by the inclusion of abnormal and other non-recurring items as extraordinary items. The definition of an extraordinary item was narrowed to allow only limited types of events to be classified as extraordinary. The examples of these limited types of events cited by ED91 were expropriations and natural disasters.

It was anticipated that analysts would not welcome the limitation of extraordinary items because it would adversely affect earnings per share as an analytical tool. Hemus and Mildenhall thus decided to study the impact the changes proposed by ED91 would have on earnings per share as a measure of share performance.

4.1.2   Methodology

A sample of companies in the industrial sector of the Johannesburg Stock Exchange were selected. It was decided that the period the study would cover would be from 1986 to 1992.

Two measures of earnings per share were calculated and compared to the earnings per share that was reported on the face of the income statement. The first measure was calculated using the all-inclusive approach of ED91 (contents of the extraordinary item note were analysed and reclassified to be in accordance with the narrowed definition of extraordinary items per ED91). The second measure was primarily based on accounting earnings but also sought to remove certain non-cashflow items like goodwill write-offs (this is similar to the current headline earnings per share which is calculated in terms of AC306).

The percentage increase or decrease was calculated, along with the movement in each of the three earnings per share measures. The correlation between share price movement and movement in all three earnings per share measures was calculated.

4.1.3 Research results

Table 3 summarises their findings on the correlation between the share price movement and the three earnings per share measures:

Table 3: Hemus and Mildenhall - summary of correlations found

Year	Earnings per share - as reported	Measure 1	Measure 2
1987	0.00	0.00	0.00
1988	0.00	0.21	0.31
1989	0.18	0.01	0.01
1990	0.05	0.05	0.05
1991	0.07	0.03	0.07
1992	0.02	0.00	0.01
Average	0.05	0.05	0.07

Table 3 indicates that none of the three measures shown was consistently superior as an indicator of share performance. A perusal of the average correlations calculated over the six year period shows that the earnings per share as reported provides the same average correlation with share performance as does the all-inclusive approach adopted to calculate measure 1.

In addition, measure 2 shows a better correlation with share performance than the other two measures calculated.

The research also highlighted the abuse of extraordinary items by certain companies - both misclassification and inadequate disclosure were found to be problem areas in the companies' financial statements.

4.1.4 Research conclusions

Based on their research results, Hemus and Mildenhall concluded that the earnings per share may not be adversely affected as an analytical tool by the adoption of an all-inclusive measure, contrary to popular belief. Instead, the all-inclusive approach has "the advantage of eliminating the scope which presently exists for distorting reported earnings per share figures by South African companies." (Hemus and Mildenhall: p36).

Another significant finding was that measure 2, which removed certain non-cashflow items, had a better correlation than the other two correlations. This suggests that the headline earnings per share as is now calculated and disclosed by companies may be a better measure of share performance.

4.2   Fouche and Van Rensburg (1999)

Fouche and Van Rensburg (1999) surveyed South African unit trust portfolio managers with regard to their investment appraisal techniques.

Their study was based on an adaptation of the questionnaire methodology used by Arnold and Moizer (1984).

It was found that 93% of the respondents used fundamental analysis approach to appraise investments and that earnings based valuations were most frequently used by the portfolio managers.

On the use of indicators for forecasting purposes, it was found that earnings per share was the clear favourite amongst respondents, with 82,6% of respondents almost always using it as an indicator. Portfolio managers were found to favour forecasting earnings per share for two to five years ahead and applying and appropriate price-earnings ratio to this forecast to derive the forecasted share prices.

4.2.1   Summary

South African research has shown that earnings per share is an important factor when appraising share performance. In addition, it has been found that an all-inclusive approach to calculating earnings per share should not adversely affect the use of earnings per share as a tool to analyse the performance of shares.

5.   CONCLUSION

This chapter identified the issues and problems surrounding earnings and earnings per share through a review of authoritative pronouncements, journal articles and prior research.

The literature survey of authoritative pronouncements revealed the differences made to the calculation and disclosure of both basic and diluted

earnings per share by the new AC104. These differences were summarised in tables 1 and 2.

The survey of journal articles and research revealed that several areas were considered to be problematic in the use of earnings and the calculation of earnings per share. The most significant issues highlighted were the usefulness of earnings in making investment decisions, the ability of both earnings and earnings per share to be easily manipulated, the predictive value of earnings, the use of earnings in the valuation of securities and the use of earnings and earnings per share in performance measurement.

The following chapter will show how the issues identified affected the development of the research problem.

CHAPTER III: RESEARCH PROBLEM

1.   INTRODUCTION

The literature survey identified the issues and problems surrounding earnings per share, especially the earnings component of the earnings per share calculation. This chapter extends these issues and problems to formulate the research problem.

2.   MATTERS ARISING OUT OF THE LITERATURE SURVEY

Several core issues were identified through the review of certain authoritative pronouncements, journal articles and prior research. The first core issue related to the usefulness of earnings in making investment decisions.

The second core issue related to the susceptibility of earnings per share to manipulation by manipulating either the numerator (the earnings) or the denominator (the weighted average number of shares) of the earnings per share calculation.

The third core issue was whether earnings, and thus earnings per share, had any predictive value i.e. whether it could be used in order to forecast future earnings of a company.

The fourth core issue related to the use of earnings and earnings per share in the valuation of securities and in the measurement of the performance of a company.

3.   DEVELOPMENT OF THE RESEARCH PROBLEM

The Statement of Generally Accepted Accounting Practice AC000 "Framework for the Preparation and Presentation of Financial Statements" (AC000) identifies the following users of financial statements:

(i)   investors,

(ii)   employees,

(iii) lenders,

(iv) suppliers and other trade creditors,

(v)   customers,

(vi) Government and its agencies, and

(vii) the public (AC000: para .09).

The South African economy is characterised by many large institutional investors. Many members of the general public entrust their savings to financial institutions and unit trusts instead of investing directly in shares on the Johannesburg Stock Exchange. Unit trust portfolios usually comprise of gilt investments like government bonds as well as equity investments like the shares of listed companies.

During recent years unit trusts have become one of the more popular means of the public investing funds on the Stock Exchange, without having to undertake assessments of share performance and investment decisions personally. The large amounts of money invested in unit trusts means that unit trust portfolio managers wield a significant amount of power and responsibility with regard to the investment decisions they undertake.

Unit trust portfolio managers have previously been identified as important investors. Fouche and van Rensburg (1999) have already undertaken a study into the investment appraisal techniques used by unit trust portfolio managers in South Africa, in which it was found that financial information,

and earnings per share in particular, was used frequently. It was thus decided that unit trust portfolio managers would be surveyed as significant investors and users of financial information.

4. STATEMENT OF THE RESEARCH PROBLEM

The research project will attempt to determine what impact the changes to the earnings per share standard introduced by the new AC104 has had on the use of earnings per share information, by equity unit trust portfolio managers, as a performance indicator. The portfolio managers will be surveyed on the usefulness of the earnings per share disclosures as well as their response to the issues identified in the literature survey.

The research problem is formally stated as follows:

Are the earnings per share disclosures of South African listed companies sufficient to meet the needs of equity unit trust portfolio managers in South Africa as a performance indicator, and if not, what additional information do they require?

The problem has been limited to equity unit trust portfolios and to unit trusts that invest in listed companies' shares. Earnings per share information is mandatory disclosure for listed companies and earnings per share information would only be applicable to unit trust portfolios that include investments in shares. The problem has also been limited to South African companies and unit trust portfolios to avoid complications caused by the different disclosure requirements of other countries.

In addressing the research problem, the following sub-problems were identified:

(i) what changes have been made to the basic and diluted earnings per share standard by the release of the new AC104 and what are the reasons therefor?

(ii) what characteristics must information have to qualify as a useful financial performance indicator?

(iii) what is the impact of the new AC104 on equity unit trust portfolio managers' use of earnings per share information as a performance indicator?

(iv) does the current disclosure and calculations of earnings per share information satisfy the needs of equity unit trust portfolio managers as a performance indicator?

(v) what additional earnings per share disclosures or calculations would equity unit trust portfolio managers require in order to make earnings per share information more useful as a performance indicator?

In addition, a sixth sub-problem was identified: what is the extent of use of other similar performance indicators, such as headline earnings per share and cash flows per share, compared to earnings per share.

5.   CONCLUSION

This chapter has set out the research problem to be investigated. To resolve the research problem, a survey of South African equity unit trust portfolio managers was undertaken. The subsequent step in the research process was to identify an appropriate methodology to enable the research problem to be answered satisfactorily.

CHAPTER IV: RESEARCH METHODOLOGY

1. INTRODUCTION

The research problem as developed in chapter III required a survey of unit trust portfolio managers to be undertaken. To answer the research problem, a choice had to be made about the approach to solving the problem. This involved a decision between either a quantitative or a qualitative approach. This decision directly affected the sample design, the questionnaire design, data collection methods and the type of data analysis utilised.

2. RESEARCH DESIGN

The research method had to be designed so as to obtain sufficient information from unit trust portfolio managers from which to draw conclusions.

2.1 Quantitative versus qualitative approach

The most important criterion in deciding between a quantitative or a qualitative approach was the quality of results that the chosen approach would yield.

2.1.1 Factors affecting the choice between a quantitative or qualitative approach

The literature survey revealed that much controversy surrounds the calculation of earnings per share and its use as a performance indicator. In addition, prior research into the investment analysis techniques employed by unit trust portfolio managers in South Africa revealed that earnings per share was an important indicator of financial performance.

Despite this, there has been no prior research into the requirements of unit trust portfolio managers with regards to the earnings per share figure that is disclosed in companies' financial statements. The research was thus of an exploratory nature and the opinions of unit trust portfolio managers were being sought regarding the use of earnings per share as a performance indicator.

In addition, an objective of the research was to be able make generalisations about the characteristics of a useful performance indicator and about the use of earnings per share as a performance indicator.

The following considerations were also taken into account when deciding whether to conduct either a quantitative or a qualitative approach:

(i)   unit trust portfolio managers are usually experienced in the analysis of investments and are thus sophisticated users of financial statements,

(ii) unit trust portfolio managers indicated in prior research that they used earnings per share often as a performance indicator, and

(iii) the research would be exploratory in the sense that it investigated the impact of recent changes to the earnings per share standard to the use of earnings per share as a performance indicator.

After consideration of the above factors, it was decided that a qualitative approach would yield the most meaningful results.

2.1.2   Determination of the research method

The next step in the process was to identify a qualitative approach that would best suit the research objectives and to determine what generalisations could be made as a result of this approach.

Leedy (1993) identified a descriptive survey study method as a method that is appropriate in a situation that demands the technique of observation as a principle means of collecting data. This type of study, also referred to as a normative study, implies that "the assumption that whatever we observe at any one time is normal and under the same conditions could be observed again in the future" (Leedy: p185).

This could be achieved by way of a questionnaire. A questionnaire, as Leedy points out, is a "commonplace instrument for observing data beyond the physical reach of the observer" (Leedy: p187).

Using this method of research allows the opinions of the selected sample to be surveyed. With the proper structuring of the questionnaire, and the use of close ended questions, it is also possible to use simple statistical methods to draw inferences from the responses to the questionnaire.

A characteristic of the descriptive survey method is that although the method relies upon observations to acquire data, that data must then be organised and presented systematically to draw valid and accurate conclusions (Leedy: p187). The descriptive survey method is thus, while being qualitative in nature, able to allow researchers to use statistical methods to make certain generalisations.

The descriptive survey method would thus allow the researcher to survey respondents regarding their opinions, as well as allow generalisations to be drawn from the data collected. This choice of research method would thus lend flexibility to the choice of data collection method.

2.2 Mailed questionnaires versus personal interviews

As discussed above, the data collection method chosen should allow for both opinions to be drawn from respondents and for generalisations to be made. Data would therefore have to be both meaningful and be able to be compiled in such a way as to draw conclusions on the use of earnings per share as a performance indicator.

2.2.1 Personal interviews

Initially, the interview method was considered as a possible means of acquiring the data to solve the research problem.

There are several advantages to using the interview method:

(i) greater detail, volume, depth and quality of information can be secured than by telephone or mail surveys (Emory: p268),

(ii) a well-trained interviewer can increase the accuracy and completeness of responses and spontaneous responses that are more informative can be noted (Balsley and Clover: p100, Emory and Cooper: p320, Bailey p182),

(iii) an interviewer has more control over the manner in which the questionnaire is completed by ensuring that the right person answers the questions and by ensuring that the order in which the questions are answered is not changed by the respondent and by ensuring that all questions are answered (Balsley and Clover: p101, Bailey: p182-3), and

(iv) the interviewer is able to clarify the meaning of questions and adjust the language used if the respondent is confused and difficulty is experienced in understanding the questionnaire (Emory and Cooper: p320).

There are, however, several disadvantages to using the interview method:

(i)   personal interviews may reduce the co-operation of respondents who regard the interview as an intrusion (Balsley and Clover: p101),

(ii) personal interview results can be influenced by the manner and attitude of the interviewer (Emory: p269),

(iii) the interview process is time consuming (Emory and Cooper: p 339),

(iv) respondents are not as easily accessible as they would be for a mailed questionnaire (Emory: p269, Balsley and Clover: p101) as unit trust portfolio managers in South Africa are usually based either in Cape Town or Johannesburg, and

(v)   the conducting of interviews can be costly (Bailey: p183, Emory: p289, Balsley and Clover: p 101). In the case of this research project, travel and accommodation costs would be incurred as a result of (iv) above.

In the light of the objectives of the research project it was considered that the last three of the above disadvantages were too difficult to overcome. Unit trust portfolio managers are busy professional people who are unlikely to grant interviews that may take up too much time and effort. Discussion with a researcher, who conducted the survey of South African unit trust portfolio managers, regarding the accessibility to the unit trust portfolio managers confirmed this view. This would have posed problems with the size of sample that could reasonably be surveyed in order to collect data required. In addition, the time needed and the cost that would have been incurred in the conducting of the interviews was considered to be prohibitive.

2.2.2   Mailed questionnaires

The other alternative that was considered as a possible means of acquiring the required data was the mailed questionnaire. Several advantages were identified regarding the use of mailed questionnaires:

(i) questionnaires could be sent to persons over a wide geographic area (Balsley and Clover: p95),

(ii) the survey could be conducted at a relatively low cost (Balsley and Clover: p95, Emory: p282),

(iii) the researcher is able to contact persons, like corporate executives, who are usually inaccessible and difficult to reach in any other way (Emory: p282),

(iv) mailed questionnaires can be answered more carefully because more time can be allowed for thinking about certain issues (Balsley and Clover: p95, Emory: p283), and

(v) no interviewer is present to introduce bias and to make mistakes in recording responses (Balsley and Clover: p95).

There are, however, some disadvantages to using mailed questionnaires:

(i) large numbers of questionnaires may not be returned, leading to non-response bias (Balsley and Clover: p96, Emory: p283),

(ii) answers to certain questions may be omitted because they are misunderstood (Balsley and Clover: p96),

(iii) a mailing list that contains up-to-date addresses of persons in the sample may be difficult and expensive to obtain (Balsley and Clover: p96), and

(iv) the quality of data obtained in this manner may not be as good as that obtained by means of an interview.

Balsley and Clover (1979) list the circumstances under which mail questionnaires are appropriate:

(i) when the type of information required can be obtained satisfactory form by a questionnaire that can be answered easily and quickly,

(ii) when the information is possessed by persons who are able and willing to respond through the mail,

(iii) when the population to be surveyed consists of a homogenous group of people that have similar interests, education, economic and social backgrounds, and

(iv) when up-to-date and complete mailing lists of the population to be surveyed are available and is not too costly to obtain (Balsley and Clover: pp96-100).

Bearing these circumstances and the advantages and disadvantages of mailed questionnaires in mind, it was considered that the use of mailed questionnaires best suited the objectives of the research project. The advantages were considered to outweigh the disadvantages of this method of data collection. The disadvantages identified were to a large extent limited or controlled in order to obtain the necessary quantity and quality of data. The mailed questionnaire method was thus selected as the data collection method.

3.   SAMPLE DESIGN

In selecting the sample of unit trust portfolio managers to be surveyed, the population to be surveyed was defined, the sample selection criteria were specified, and the composition of the sample was reviewed.

3.1   Population definition and selection criteria

Before selecting a sample of unit trust portfolio managers to be surveyed, it was necessary to define the population from which the sample would be drawn. The 1999 issue of the Unit Trusts Handbook is a complete, current reference to all the unit trusts in existence at March 1999. It lists all the unit trust management companies, the different types of unit trusts offered in each company's suite of unit trusts as well as the names and addresses of all the unit trust portfolio managers.

Up to March 1999, there were 29 different unit trust management companies, many of whom offered several different types of unit trust funds. In total there were 232 different funds in which the public could invest their money. Table 4 provides for a breakdown of the different companies and the number of funds that they offer.

The population is characterised by several large management companies as well as a few smaller companies. Most companies that offered more than one type of fund had international unit trust funds as well as funds that invested solely in South African investments. Several companies offered funds that are termed "income" funds. These funds offer low risk and relatively low returns and invest solely or mainly in gilts i.e. government bonds and other similar instruments. In addition, some unit trust funds, which are called "funds of funds," invest solely in other unit trust funds, and thus do not invest in equity or gilt instruments directly.

As discussed in chapter III, this survey study was limited to only those unit trusts that invested in South African equity instruments. Therefore foreign or international unit trust funds, funds whose main investment was in gilt instruments, and funds of funds were excluded from the population to be surveyed. Funds that invest mainly or exclusively in mining shares were also excluded from the population. This is because mining companies use methods other than generally accepted accounting practice to account for earnings e.g. the appropriation method.

In total, 130 qualifying funds were identified as being eligible for the purposes of the survey. Refer to table 4 for a breakdown of these funds.

Table 4: Unit trust management companies

Company	Number of funds offered	Number of qualifying funds
ABSA Fund Managers Ltd	10	4
African Harvest Management Co Ltd	2	2
Allan Gray Unit Trust Management Ltd	1	1
BOE Unit Trust Management Co Ltd	8	4
Brait Management Co Ltd	7	5
Commercial Bank of Namibia	2	0
Community Growth Management Co Ltd	2	1
Coronation Management Co Ltd	10	7
Fedsure Unit Trusts Management Co Ltd	16	9
Fleming Martin Management Co Ltd	3	2
Franklin Templeton Management Co	4	3
Guardbank Management Corp Ltd	11	7
Investec Guinness Flight Management Co Ltd	24	8
M^3 Capital Unit Trusts Management Co Ltd	3	2
Marriott Unit Trust Management Co Ltd	3	2
Metropolitan Life Unit Trust Management Co	7	4
Nedcor Bank Management Co Ltd	4	4
NIB Management Co Ltd	22	13
Old Mutual Unit Trust Managers Ltd	19	10
Prestasi Unit Trust Managers	1	1
Prudential	7	0
PSG Management Co	5	3
RMB Unit Trusts Ltd	14	9
Regal Treasury Unit Trust Management Co	1	0
Sage Unit Trusts Ltd	8	5
Sanlamtrust Managers Ltd	18	11
Sanlam Namibia Trust Managers Ltd	2	0
Southern Unit Trust Management Co Ltd	8	3
Standard Bank Unit Trusts Ltd	20	10

It was also found that several unit trust portfolio managers manage more than one fund within the same management company. In other cases, some funds had more than one manager. This was taken into account when deciding on the number of unit trust portfolio managers to be surveyed.

In total 116 unit trust portfolio managers were identified as being eligible to participate in this study and were sent questionnaires to which 30 responded.

Of the responses received, two responses were received from managers of index tracking funds. Both these mangers indicated that although the unit trust funds they managed consisted mainly of equity instruments, like shares of listed companies, the criteria they used to select their investments was fundamentally different from normal investment appraisal techniques. These two respondents indicated that "the analysis of earnings is not a useful measure or a relevant indicator" for index tracking funds. This is due to the fact that index tracking funds attempt to imitate and outperform the different indices on the stock exchange, and thus do not use the same investment criteria that other funds may use. Examples of the indices that may be tracked by index tracking funds are the All Share Index and the Financial and Industrial Index.

The population to be surveyed was thus modified to exclude index tracking funds. Nine such funds were identified as being amongst the survey population of 116. The population to be surveyed was thus reduced to 106.

3.2 Sample size

The determination of the sample size is affected by the research method employed. There must be a balance between the need to obtain meaningful results and the logistical requirements of the research method.

Mailed questionnaires would make more of the population accessible, with costs being kept down to a reasonable level. There was therefore no strict upper limit on the number of unit trust portfolio managers that could reasonably be surveyed. Questionnaires were mailed to all 116 unit trust portfolio managers that were originally identified as eligible.

There was, however, a constraint on the minimum number of responses that were obtained. The acceptable number of responses that would allow generalisations to be made about the entire population differs from one study to another. The response rate achievable is influenced strongly by the subject of the study. Mail survey projects with a return of about 30 percent are usually considered to be satisfactory (Emory: p283).

The study into the investment appraisal techniques used by South African unit trust portfolio managers by Fouche and van Rensburg (1999) surveyed 67 unit trust portfolio managers. Twenty-three responses, or a response rate of 34 percent, were obtained.

For the purposes of this study, a response rate of 25 to 30 percent (or 26 to 32 responses) was considered to be an acceptable rate of response.

3.3 Composition of the sample

The research method employed ensured that a sufficient spread over the different unit trust management companies and unit trust funds was obtainable.

The sample selection was not prone to judgmental errors and thus personal bias as the researcher surveyed all unit trust portfolio managers that were identified as being eligible to participate in this study.

The main problem of the research method employed was that the researcher had no control over which unit trust portfolio managers responded to the questionnaire and how many responses were received. The main obstacle was thus the problem of non-response error, which results when no responses are received from certain people that were included in the survey. This could lead to bias entering into the data collection process.

It was thus considered that the number of responses received would be adequate if responses were received from unit trust portfolio managers from a wide spread of the management companies.

In total 30 responses, that covered a wide spread of the different management companies, were received. Chapter V provides further detail on the demographics of responses received.

Thus it was considered that the sample selection procedures employed were appropriate to obtain the necessary results.

4. QUESTIONNAIRE DESIGN

The next step in the process was to design, and administer a suitable questionnaire to the survey population, in order to be able to answer the research problem. In formulating the questionnaire, the content of the questionnaire, the questionnaire format, and the testing of the questionnaire were considered.

4.1 Questionnaire content

The questionnaire contained relevant questions to enable the researcher to answer the research problem. The content was based mainly on two issues: the characteristics of a useful performance indicator and the differences

between the superseded AC104 and the current AC104 as identified in chapter II.

There was no prior research into these two areas, so the contents of the questionnaire comprised mainly of original questions formulated by the researcher. Certain questions regarding the frequency of use of earnings per share to other financial performance indicators were adapted from the study by Fouche and van Rensburg (1999).

4.2   Questionnaire format

The format of the questionnaire was affected by the following: the order of the questions, the type and structure of the questions and the approach to difficult and complex issues.

4.2.1   Order of questions

The order of questions in a questionnaire is particularly important (Emory and Cooper: p370). Emory and Cooper (p370) identified four guidelines that should be adhered to when formulating a questionnaire:

(i)   the questionnaire should arouse the interest of respondents,

(ii) personal or threatening questions should not be placed early in the questionnaire,

(iii) the questionnaire should begin with general items and move towards specific items and should start with simple items and progress towards the more complex items, and

(iv) changes in the frame of reference should be reduced and should be clearly indicated to the respondent.

In addition it was recommended that varying the length of the questions would assist in maintaining the respondent's interest, although this may cause the questionnaire to be more difficult to complete (Bailey: p140).

In order to implement the above guidelines and recommendations, the questionnaire started with general questions regarding the unit trust portfolio managers. Questions regarding their qualifications, number of years of experience in share analysis and the factors that they consider in selecting investments were posed.

Although this information was of a personal nature, all attempts were made to make these questions as non-threatening as possible. These personal questions were considered to be unavoidable because the researcher needed to assess the background and experience of the respondents in order to assess the quality of the responses received. It was thus considered a good starting point without being too threatening or complex.

The remainder of the questionnaire was split into four parts, all of which was compulsory to answer. Section B focused on financial performance indicators. Questions on the characteristics of financial performance indicators as well as the usage of different types of financial performance indicators were asked.

Section C and D focused on basic and diluted earnings per share respectively. The differences between the superseded AC104 and the current AC104 were highlighted and classified as either changes to calculation or changes to disclosure requirements. Questions were asked regarding the impact of these changes on the use of both basic and diluted earnings per share as performance indicators.

Section E focused on the comparison between different "per share" indicators such as basic and diluted earnings per share, cash flows per share, headline earnings per share and dividends per share. A ranking of the use of basic earnings per share as compared to the other "per share" indicators was sought.

The questionnaire thus had a definite order in which questions were asked. This was considered to be appropriate to stimulate respondents and not to threaten them.

4.2.2 Structure of questions

The second aspect to consider in the formulation of the questionnaire was the structure of questions to be asked. This choice revolved around whether either open or close ended questions would be asked.

In section 2.2.1, it was identified that unit trust portfolio managers, being busy professionals, would have time constraints to consider when answering the questionnaire. In addition, standardised answers were necessary to certain questions in order to employ simple statistical procedures and to make certain generalisations. It was thus decided to use close ended questions wherever possible.

Where appropriate, the close ended questions had an option for further issues to be raised by the respondent. Open ended questions were also used where suggestions or opinions were required to satisfactorily answer the question. By the very nature of the responses these questions required, they could not be framed into close ended questions.

Check boxes were inserted into the questionnaire where close ended questions were asked, and the questions were laid out in such a format so as to reduce the possibility of recording errors.

Certain questions required a rating on a scale e.g. respondents were asked to indicate the frequency with which they used a certain financial performance indicator, using a scale from "always" to "never". This is referred to as a Likert scale. Each option on the scale is assigned a value at equal intervals from each other, a benchmark value is calculated and the value calculated for the question is compared to the benchmark value to enable a conclusion to be drawn.

Some questions were inserted into the questionnaire to serve a dual purpose. The answers to the questions themselves were important, but the question itself served as a check on the response to a prior question.

4.2.3   Approach to complex issues

The third aspect of the questionnaire format was the approach to complex issues. Complex issues were identified as those areas where the unit trust portfolio managers had to suggest areas of improvement for the earnings per share standard or point out problematic areas with regards to earnings per share calculation and disclosure.

These issues were therefore dealt with at the end of both sections C and D i.e. for both, basic and diluted earnings per share. These questions were asked by means of open ended questions so that respondents could express themselves fully.

4.3   Testing of questionnaires

The testing of the questionnaire was undertaken in two phases. The first phase involved a review of the questionnaire by academics who were familiar with the theoretical aspects of earnings per share reporting. The second phase involved a pilot study with a respondent who was familiar with the theoretical aspects of earnings per share, investment analysis and unit trusts.

As a result of the review by the academics, several recommendations were made regarding the questionnaire content, format and structure and the wording of questions. These recommendations were implemented where considered appropriate.

The second stage involved the undertaking of a pilot study. A pilot study is recommended in order to "identify problems before the actual collection of data begins" (Emory and Cooper: p382).

The main objective of the pilot study was to ensure that the meanings of the questions were clear, that the questionnaire structure and the flow of questions were appropriate, that the questionnaire was interesting and stimulating and that instructions regarding the order of questions to be answered were clear.

It was proposed to use only one respondent in the pilot study, as the results of the review by the academics were satisfactory. It was necessary that the respondent in the pilot study was in a similar position to a unit trust portfolio manager and should have an adequate knowledge of the controversies, issues and changes surrounding earnings per share. A

suitable person, an investment analyst with an actuarial qualification and more than 15 years experience in investment analysis, was identified.

The results of the pilot study were favourable. The few minor changes recommended by the respondent were incorporated into the questionnaire. These changes involved mainly the addition of an extra question under section A, which focused on the respondent profile, and several wording changes to clarify the meaning of certain questions.

5. DATA COLLECTION

The above discussion has shown that the data collection method would be by means of a mailed questionnaire. The identification of the unit trust portfolio managers to be surveyed was completed in section 3.1. The only further issue that needed to be considered was the communication with prospective respondents.

5.1 Communication with prospective respondents

Contact prior to the mailing of the questionnaires was not considered necessary. The prior survey of unit trust portfolio managers conducted by Fouche and van Rensburg indicated that unit trust portfolio managers do respond to mailed questionnaires. It was considered that contact prior to the actual questionnaire being sent would possibly aggravate the managers who are busy professionals.

5.1.1 First mailing of the questionnaires

Each questionnaire was accompanied by two covering letters. The first was a letter from a senior staff member at the University of Natal introducing the researcher and the objectives of the survey. The second letter was from

the researcher, setting out the background and objectives of the survey. Both letters were worded politely and signed personally by the respective writers to provide an incentive to answering the questionnaire.

As a further incentive, an offer was made to forward a summary of the results of the survey to the respondents once the study had been completed. The questionnaire was also accompanied by a self-addressed stamped envelope, to encourage respondents to reply.

The first mailing of the questionnaires resulted in 18 responses.

5.1.2   Second mailing of questionnaires

Within four weeks of the first mailing, a second mailing was undertaken. Questionnaires were mailed to only those prospective respondents that did not answer the first mailing. Questionnaires were again accompanied by two covering letters and a self-addressed stamped envelope.

A further 12 responses were received.

6.   DATA ANALYSIS

The final stage in the research project was to analyse the data and conclude on the results. These two issues are discussed below.

6.1   Data analysis

The data gathered from the mailed questionnaires was analysed qualitatively. First, close ended questions were analysed using spreadsheet software. This allowed results to be tabulated and for interesting or inconsistent answers to be highlighted.

The Likert scale, which was referred to in section 4.2.2, was also employed to provide a rough measure to evaluate responses to close ended questions, especially where the ranking of different alternatives was required. The mechanics of the Likert scale was illustrated by Leedy (Leedy: p196).

For example, question 5 of the questionnaire (refer Appendix A) required the ranking of different financial performance indicators based on the use of these indicators. A response of "always" would be assigned a value of two while "never" would be assigned a value of minus two. Each response between these two extremes would be assigned a value at equal intervals. A response of "sometimes" by all respondents to a particular financial performance indicator will thus yield a value of zero. A rating less than zero would indicate that the indicator is used infrequently while a rating above zero would indicate more frequent usage.

Secondly, responses to open ended questions were analysed individually and then in conjunction with the responses of other respondents to highlight any interesting or unusual responses.

6.2   Conclusions

During the final stage of the research process, generalisations were drawn from the results of the survey. Questions that were adapted from the survey of Fouche and van Rensburg were compared to the results of that survey.

7.   LIMITATIONS OF THE STUDY

In order to obtain meaningful results, a qualitative approach was employed. A possible limitation of this study is that it would not be possible to statistically analyse the results. It was considered, however, that the

advantage of obtaining meaningful results would outweigh the effect of this limitation.

8.   CONCLUSION

This chapter explained the methodology to be used in order to survey the unit trust portfolio managers. It was established that a mailed survey would be used, and by using the responses and analysing them appropriately, generalisations could be made regarding the use of earnings per share information by unit trust portfolio managers.

CHAPTER V: PRESENTATION OF RESULTS OF SURVEY

1.   INTRODUCTION

The objective of this study was to determine whether the disclosures of earnings per share information by South African listed companies are sufficient to meet the needs of equity unit trust portfolio managers as a performance indicator. The respondents were questioned on what the characteristics of a useful performance indicator are, on what impact the introduction of the new statement governing earnings per share information has had on their use of earnings per share disclosures as performance indicators, and on whether other "per share" disclosures were more or less useful than earnings per share disclosures.

This chapter is divided into five sections. The first section presents the results of the initial section of the questionnaire, which dealt with the profile of the respondents. The second section presents the results of section B of the questionnaire which dealt with financial performance indicators. The third and fourth sections present the results of section C and D of the questionnaire respectively, which dealt with the impact the changes to both basic and diluted earnings per share by the current AC104 has had on their use as performance indicators. The fifth section presents the results of section E of the questionnaire which dealt with the comparison between basic earnings per share and other "per share" disclosures.

The responses to the close ended questions are set out in Appendix A, and are referred to when necessary in this chapter.

2.   RESPONDENT PROFILE

Respondents were required to fill in a space provided to identify themselves and the unit trust management company they worked for. This was required to determine the spread of respondents over the different unit trust management companies to ensure that the responses were not unduly biased.

The rest of the first section of the questionnaire comprised of three questions. Question 1 was asked to ascertain what qualifications the respondent had obtained while question 2 sought to identify how experienced the respondent was in the analysis of shares.

Question 3 then asked about what factors the respondents considered when deciding whether to add or to remove certain shares from their portfolios. This question was considered important as it would identify how important financial performance was to respondents in their decision-making processes.

2.1   The spread of respondents over the unit trust management companies

Respondents to the survey were from a wide spread over the different unit trust management companies. There were several unit trust management companies from which no responses were received. There were, however, four respondents that did not identify themselves and were thus allocated as "unidentified".

Despite the non-response by certain of the management companies, the responses were considered to be from a sufficiently wide spread of

companies to be regarded as unbiased. The number of respondents from each company is presented in Table 5.

Table 5: Number and spread of respondents

Company	Number of qualifying funds	Number of responses
ABSA Fund Managers Ltd	4	1
African Harvest Management Co Ltd	2	1
Allan Gray Unit Trust Management Ltd	1	1
BOE Unit Trust Management Co Ltd	4	0
Brait Management Co Ltd	5	1
Community Growth Management Co Ltd	1	1
Coronation Management Co Ltd	7	2
Fedsure Unit Trusts Management Co Ltd	9	0
Fleming Martin Management Co Ltd	2	0
Franklin Templeton Management Co	3	0
Guardbank Management Corp Ltd	7	0
Investec Guinness Flight Management Co Ltd	8	2
M^3 Capital Unit Trusts Management Co Ltd	2	0
Marriott Unit Trust Management Co Ltd	2	0
Metropolitan Life Unit Trust Management Co	4	1
Nedcor Bank Management Co Ltd	4	0
NIB Management Co Ltd	13	4
Old Mutual Unit Trust Managers Ltd	10	1
Prestasi Unit Trust Managers	1	0
PSG Management Co	3	1
RMB Unit Trusts Ltd	9	6
Sage Unit Trusts Ltd	5	1
Sanlamtrust Managers Ltd	11	0
Southern Unit Trust Management Co Ltd	3	0
Standard Bank Unit Trusts Ltd	10	3
Unidentified	0	4
Total	**130**	**30**

As discussed in chapter IV, two of the 30 responses received were from index-tracking funds and thus these respondents did not answer the questionnaire. Thus there were only 28 respondents who completed the questionnaire. This represents a response rate of 26,4%, which is considered to be a sufficient percentage from which to draw conclusions.

2.2   Respondent qualifications and experience

Responses to question 1 indicated that all the respondents were well qualified academically and professionally. Most respondents had multiple qualifications. The most common qualifications are presented in table 6.

Table 6: Respondent qualifications

Chartered Accountant (SA)	10
Chartered Financial Analyst	10
Masters in Business Administration	6
Bachelor of Commerce	8
Bachelor of Commerce (Honours)	7

Other, less common, qualifications held included Bachelor of Sciences, Doctor of Philosophy (Physics) and Chartered Management Accountancy.

Responses to question 2 indicated that half of the respondents had more than 5 years of experience while the other half had between zero and five years experience. This is perhaps, an indication of younger, more aggressive, professionals being selected to manage funds. Another possible reason is that new funds are continuously being started, leading to a need for more managers, who are perhaps less experienced.

2.3   Factors considered when adding or removing shares from portfolios

The final question in this section (Appendix A, section A, question 3) focused on what factors respondents consider when changing the composition of their portfolios. All respondents responded to the first three parts of the question. Two respondents did not respond to part (d). To complete the analysis of the responses, the non-responses were considered to indicate that this factor was "never" considered by the respondents when deciding whether to invest in or disinvest from certain shares.

A Likert scaling was used to evaluate the importance of each factor considered. A weighting of 2 was assigned to the response "always" while a -2 was assigned to the response "never". Each response between these two extremes were assigned weightings between 2 and -2 at equal intervals, for example, "almost always" was assigned a value of 1 and "sometimes" a value of 0.

A score was then calculated for each factor considered. A score of above zero was considered to indicate frequent usage, and the higher the score calculated, the higher the frequency of use and thus the higher its importance. Table 7 presents the scores calculated per factor.

Table 7: Factors considered when changing composition of portfolios: scores calculated

Financial performance	53
Sentiment (e.g. empowerment shares)	13
Instinct	11
Public opinion	-22

Financial performance is by far the most popular factor considered by respondents when making investment decisions. Twenty-five of the 28 respondents to the questionnaire indicated that they considered financial performance "always". This finding is consistent with the findings of Fouche and van Rensburg (1999) that fundamental analysis is the most common investment appraisal technique. It also gives credibility to one of the objectives of this study i.e. to determine the characteristics of a useful financial performance indicator.

Sentiment and instinct are also used with some frequency, but public opinion is used infrequently by respondents. In fact, 18 of the 28 respondents indicated that they consider public opinion either "seldom" or "never".

One respondent commented that sentiment is "very important with reference to sector rotation e.g. cyclicals versus growth/defensive sectors." This means that when deciding whether to move funds between a sector of the market that is affected by business cycles and a sector that is high growth, sentiment is an important factor to consider. The same respondent also commented that "theme investing has also been very important shares in recent years (such as small companies and black empowerment)."

Several respondents also indicated the following factors which they consider when making investment decisions:

(i)   the potential for the share to outperform the index or the benchmark in the next 6 to 12 months,

(ii)   competitor holdings,

(iii) management competency and integrity,

(iv)   the industry and competition,

(v)   business profile,

(vi)   the company's strategic or business plan, and

(vii) key profit drivers.

3. FINANCIAL PERFORMANCE INDICATORS

The objectives of section B of the questionnaire were two-fold. The first objective was to determine what the characteristics of a useful financial performance indicator are. The second was to determine the frequency of use and the usefulness as a performance indicator of both basic and diluted earnings per share as compared to other financial performance indicators.

3.1 Characteristics of useful financial performance indicators

The first question in this section (Appendix A, section B, question 4) sought to identify those characteristics which are indicative of a useful financial performance indicator. Respondents were required to rate a list of possible characteristics. There was also an option for respondents to add additional characteristics to the list.

All respondents, except one, responded to all parts (a) to (k) of the question. One respondent answered all parts to the question except part (e) and (h). For the purposes of evaluation, it was assumed that this respondent was "indifferent" to the characteristic.

Again, a Likert scale analysis was employed to evaluate responses. A weighting of 2 was assigned the response "strongly agree" while -2 was assigned to the response "strongly disagree". Each response between these two extremes were assigned weightings between 2 and -2 at equal intervals apart from each other and a score for each characteristic was calculated.

The mechanics of the analysis for this question is identical to that employed in analysing question 3. A score above 0 would indicate that the

characteristic is a valid characteristic of a useful financial performance indicator, while a score of below zero would indicate it as being invalid. It was considered that the higher the score, the higher the importance of that particular characteristic. Table 8 presents the scores calculated per factor.

Table 8: Characteristics of useful financial performance indicators: scores calculated

(a) The data underlying the indicator are reliable.	49
(b) The method of calculation is consistent across different time periods.	46
(c) The method of calculation is consistent across different entities.	41
(d) The financial indicator enables the user to make comparisons between different entities.	42
(e) The financial indicator enables the user to make comparisons between different time periods.	37
(f) The method of calculation of the financial indicator should be resistant to manipulation.	47
(g) The options available for the inclusion or exclusion of items of information in the calculation is restricted.	40
(h) The financial indicator is easy to understand.	28
(i) The financial indicator is easy to compute.	19
(j) The underlying information relating to the indicator is available for scrutiny.	35
(k) The method of calculation is available for scrutiny.	34

All possible characteristics posed were accepted as being valid. However, the more important characteristics (as determined by scores calculated) related to the reliability of the data, consistency and comparability over different time periods and entities, and the resistance of the indicator to being manipulated.

The availability of data and calculation methods are also considered to be important characteristics. The less important characteristics relate to the ease by which the indicator can be calculated and understood. As one respondent commented: "I don't care about it being easy - it must be credible, and comparable, to be useful and relevant."

Another respondent indicated indifference towards the consistency of the method of calculation across different time periods and between different entities, as long as enough information was available to make adjustments.

3.2   Frequency of use of different financial performance indicators

The second question in this section (Appendix A, section B, question 5) sought to find out how often certain financial performance indicators were used by respondents. There were three non-responses, one each to the following parts of the question: (e), (i) and (l). For the purposes of evaluation these performance indicators were treated as if they were used "never" by the respondent.

An identical Likert scale analysis as was used in the analysis of question 3 was used. Table 9 presents the scores calculated using this method of analysis.

The most popular indicator, based on the scores calculated, is headline earnings per share with a rating of 45. Of the 28 respondents, 27 indicated that they used headline earnings per share "always" or "almost always". Other popular indicators were the price earnings ratio and diluted earnings per share, with ratings of 43 and 40 respectively.

In contrast, basic earnings per share scored a rating of only 24. Of the 28 respondents, 18 indicated that they used basic earnings per share "always"

or "almost always". This finding is different from the findings of Fouche and van Rensburg. They found that [basic] earnings per share was the most used forecast appraisal factor, with the majority (82,6%) of respondents to that survey that used it "almost always".

Table 9: Frequency of use of different financial performance indicators: scores calculated

(a) Earnings per share (basic)	24
(b) Diluted earnings per share	40
(c) Headline earnings per share	45
(d) Price-earnings ratio	43
(e) Pre-tax profits	16
(f) Post-tax profits	16
(g) Operating cash flows	24
(h) Operating cash flow per share	20
(i) Net cash flow per share	11
(j) Return on Capital Employed	31
(k) Market value of shares	31
(l) Turnover : Capital Employed	-14
(m) Dividends per share	6
(n) Return on assets	8
(o) Gearing ratio	19
(p) Current asset ratio (liquidity)	-8
(q) Acid test ratio (liquidity)	-15

Cash flow indicators are not as popular as the earnings-based indicators or the return on capital employed. All three, operating cash flows, operating cash flows per share and net cash flows per share, are less popular than the earnings based indicators. This is consistent with the findings of Arnold and Moizer (1984) that "the analysts' appraisal procedures and valuation models are more dependent on accruals-based earnings than on cash flows" (Arnold and Moizer: p206).

An interesting finding is that liquidity indicators are the least popular of all the indicators surveyed. This again suggests that respondents are more concerned with earnings and long term performance rather than the cash flow position of the company.

It is interesting to note that dividends per share is not as widely used as earnings indicators, suggesting that the Gordon's dividend growth model has more a theoretical than a practical application. There was, however, one respondent that indicated, in his response to question 26 (refer section 6.3.5), that he still used the dividend growth model to value shares.

Respondents indicated that they also use several other financial performance indicators:

(a) net asset value per share,

(b) the percentage of discount to net asset value,

(c) operating margins, the relative performance to indices,

(d) the volume of shares traded per month,

(e) price-earnings ratio relative to the price-earnings of the market,

(f) price-earnings relative to the financial and industrial index,

(g) the effective tax rate, and

(h) the price-earnings growth.

Curiously, one respondent indicated that he used two employee related indicators: revenue per employee and market capitalisation per employee. Perhaps this is an indicator that analysts and users of financial statements are not only concerned with the overall profitability of companies but also the efficiency and productivity of a company's labour force.

Other interesting findings are that one respondent indicated that he used the net present value and two respondents indicated that they used the internal

rate of return as indicators of financial performance, despite the controversy surrounding the calculation and use of these indicators.

Another indicator that scored a negative rating is the turnover to capital employed ratio. This is not surprising because turnover is not as important as earnings based indicators for the purposes of security valuation.

3.3   Comparison between different financial performance indicators

The last question in the section (Appendix A, section B, question 6) sought a ranking of the usefulness of the different performance indicators surveyed in question 5. Respondents were required to list the five financial performance indicators they found most useful, ranked from most useful to least useful. For the purposes of evaluation, indicators other than those specifically mentioned in question 5 were excluded. In addition, there were three non-responses to the entire question, and a further three non-responses to the fourth ranking and four non-responses to the fifth ranking. For the purposes of evaluation, these non-responses were excluded.

The responses were again analysed using a Likert scaling. For the purposes of this question "rank 1" was assigned a weighting of 5 while "rank 5" was assigned a weighting of 1. All other rankings between these extremes were assigned values at equally graduated intervals. Scores were then calculated for each performance indicator. Table 10 presents the scores calculated.

Table 10: **Comparison between different financial performance indicators: scores calculated**

(a) Earnings per share (basic)	26
(b) Diluted earnings per share	26
(c) Headline earnings per share	64
(d) Price-earnings ratio	52
(e) Pre-tax profits	9
(f) Post-tax profits	2
(g) Operating cash flows	17
(h) Operating cash flow per share	19
(i) Net cash flow per share	10
(j) Return on Capital Employed	39
(k) Market value of shares	17
(l) Turnover : Capital Employed	0
(m) Dividends per share	8
(n) Return on assets	7
(o) Gearing ratio	12
(p) Current asset ratio (liquidity)	0
(q) Acid test ratio (liquidity)	0

For the purposes of evaluation, it was considered that the higher the score the more useful the performance indicator. Consistent with the findings in section 3.2, headline earnings per share is regarded as the most useful financial performance indicator. More than 50% of respondents to the question ranked headline earnings per share as either first, second or third in terms of usefulness.

Both diluted and basic earnings per share are relatively useful, but both the price-earnings ratio and the return on capital employed have proven to be more popular. Also consistent with the findings in section 3.2, is the fact that cash flow and liquidity indicators are not as widely used as the earnings-based indicators.

One respondent pointed out that the ranking of the indicators may vary depending on the nature of the business being analysed. He indicated that cash flow, margins, revenue growth and returns are the most important factors to be considered.   ✗

4.   BASIC EARNINGS PER SHARE

Section C of the questionnaire dealt with basic earnings per share. The objectives of section C of the questionnaire were as follows:

(i)   to determine the impact the changes made to basic earnings per share by the current AC104 has had on respondents' use of it as a financial performance indicator,

(ii) to determine if basic earnings per share as it is now calculated and disclosed satisfies their needs as a financial performance indicator, and

(iii) if not, what additional information or modifications they require in order to make it useful.

4.1   Awareness of the new AC104

The first question in this section (Appendix A, section C, question 7) sought to find out whether respondents were aware of the issue of the new AC104. Only 16 of the 28 respondents to the question were aware of the issue of the new AC104. This is perhaps indication that respondents and, indeed, other users of financial statements do not always keep abreast of the latest developments in accounting standards.

The 'no' responses to this section were also analysed in conjunction with responses to questions 10, 11, 17 and 19. These four questions sought to determine what impact the changes to the calculation and disclosure of both basic and diluted earnings per share has had on the respondents' use of

these figures as performance indicators. Of the 12 respondents that were unaware of the changes brought about by the new AC104:

(i) nine indicated that the changes to the calculation of basic earnings per share would leave their use of basic earnings per share unchanged (question 10),

(ii) seven indicated that the changes to the disclosure of basic earnings per share would leave their use of basic earnings per share unchanged (question 11),

(iii) six indicated that the changes to the calculation of diluted earnings per share would leave their use of diluted earnings per share unchanged (question 17), and

(iv) six indicated that the changes to the disclosure of diluted earnings per share would leave their use of diluted earnings per share unchanged (question 19).

Therefore the changes brought about by the new AC104 had little impact on the majority of respondents who were unaware of the changes. The responses of the rest of the respondents who were unaware of the changes were interpreted as being what the impact of the changes would be on their future use of basic and diluted earnings per share, now that they were aware of the changes made by the new AC104.

4.2   Changes to the calculation of basic earnings per share

Respondents were informed in the questionnaire of changes that were made to the earnings per share standard by the new AC104, so that they were aware of changes while answering the questionnaire.

Two changes to the calculation of basic earnings per share by the new AC104 were highlighted:

(i) basic earnings per share is now calculated using net earnings after tax, outside shareholders' interest <u>and</u> extraordinary items, and

(ii) there is no longer a requirement to adjust for seasonal variations in earnings.

The first two parts of question 8 (Appendix A, section C) sought to find out whether the above two changes were to be considered either, or neither, as an improvement or a deterioration to the standard. There were 27 responses to this question. The 1 non-response was ignored for the purposes of evaluation.

Fifteen respondents indicated that the first change was an improvement to the standard. Six indicated that the first change constituted a deterioration of the standard, while the last 6 considered the first change to be neither an improvement nor a deterioration of the standard.

Sixteen respondents indicated that the second change was an improvement to the standard, while the other 11 regarded the second change as neither an improvement nor deterioration of the standard.

Question 9 (Appendix A, section C) sought to determine what the overall effect of the above two changes was on the calculation of basic earnings per share. Fifteen respondents indicated that the overall effect of the two changes was an improvement to the standard, 3 indicated that the overall effect was a deterioration of the standard while 9 indicated that the overall effect was neither an improvement nor a deterioration of the standard.

One respondent indicated that the overall effect of the above two changes was neither an improvement nor a deterioration of the standard, because its use is merely replaced by headline earnings per share.

Question 10 (Appendix A, section C) sought to determine the impact of the above two changes on the use of basic earnings per share as a performance indicator. There was one non-response to this question. Only 7 respondents indicated that the impact of the above two changes has been to increase their use of basic earnings per share as a financial performance indicator. Six respondents indicated that the impact has been to decrease their use of basic earnings per share as a financial performance indicator. The majority of the respondents (14) indicated that their use of basic earnings per share as a financial performance indicator has remained unchanged.

In addition, the responses to question 10 were analysed in conjunction with question 9 to highlight any unusual or inconsistent responses. Table 11 presents the results of this analysis.

Table 11: Analysis of effect of the changes to the calculation of basic earnings per share on the use of basic earnings per share as a performance indicator

	Total	Increase in use	Decrease in use	Use unchanged
Improvement	15	7	1	7
Deterioration	3	0	2	1
Neither improvement nor deterioration	9	0	3	6

Table 11 highlights that, although 15 respondents indicated that the overall effect of the above two changes to the calculation of the basic earnings per share is an improvement to the standard, only 7 would increase their use of basic earnings per share as a performance indicator while another 7 respondents indicated that their use would remain unchanged. This may be explained by the fact that several respondents already use basic earnings per share frequently, so the use would remain unchanged. Another explanation

is that although respondents consider the changes to be improvements, these changes are not sufficient to meet their needs in a performance indicator as yet.

Table 11 also highlights an unusual response. One respondent indicated that although the changes constituted an improvement, his use of basic earnings per share as a performance indicator would decrease. This is a curious outcome and seems to be an inconsistent response. A possible explanation is that although the respondent considers the changes to be an improvement to the standard as a whole, the basic earnings per share as now calculated is not suitable for the purposes of a financial performance indicator.

Another curious result is that there were three responses where it was indicated that the changes were regarded as neither improvements nor deteriorations to the standard, but the respondents indicated that their use of basic earnings per share as a performance indicator would decrease. Perhaps this is because respondents had hoped for a better AC104 and were disappointed when the new AC104 was released. Another possible explanation is that the new basic earnings per share is an all-inclusive measure of earnings and may be useful for the purposes of determining the total earnings per share from all sources, but for an indication of trading or operating performance, another earnings per share number is required.

4.3 Changes to the disclosure requirements for basic earnings per share

Only one change to the disclosure requirements for basic earnings per share by the new AC104 was highlighted: if the number of shares change after year end without a corresponding change in resources, for example, a capitalisation issue, it is now mandatory that the basic earnings per share be adjusted for such change.

The last part of question 8 (Appendix A, section C) sought to find out whether the above change was to be considered either, or neither, an improvement or deterioration to the standard. There was one non-response to this question, which was excluded from the analysis of this question.

Twenty respondents indicated that the change was an improvement to the standard. One indicated that the change constituted a deterioration of the standard, while the last 6 considered the first change to be neither an improvement nor a deterioration of the standard.

Question 11 (Appendix A, section C) sought to determine the impact of the above change on the use of basic earnings per share as a performance indicator. There was one non-response to this question. Ten respondents indicated that the impact of the above two changes has been to increase their use of basic earnings per share as a financial performance indicator. Three respondents indicated that the impact has been to decrease their use of basic earnings per share as a financial performance indicator. The majority of the respondents (14) indicated that their use of basic earnings per share as a financial performance indicator has remained unchanged.

One respondent indicated that the change to the disclosure of basic earnings per share constituted an improvement, however he indicated that his use of basic earnings per share would remain unchanged because he would have made the adjustment manually.

In addition, the responses to question 11 were analysed in conjunction with the last part of question 8 to highlight any unusual or inconsistent responses. Table 12 presents the results of this analysis.

Table 12: Analysis of effect of the changes to the disclosure of basic earnings per share on the use of basic earnings per share as a performance indicator

	Total	Increase in use	Decrease in use	Use unchanged
Improvement	20	10	2	8
Deterioration	1	0	1	0
Neither improvement nor deterioration	6	0	0	6

Table 12 highlights an unusual response. Two respondents indicated that although the changes constituted an improvement, their use of basic earnings per share as a performance indicator would decrease. This is a curious outcome and seems to be an inconsistent response. All other relationships are consistent.

4.4   Use as a performance indicator

Question 12 (Appendix A, section C) sought to determine whether the basic earnings per share, as is currently calculated and disclosed, satisfies respondents' needs as a financial performance indicator.

The majority by a narrow margin (54%) indicated that the current basic earnings per share satisfied their needs as a performance indicator, while the rest (46%) indicated otherwise.

Respondents that indicated "no" to question 12 were prompted to answer questions 13 to 15. One respondent that indicated "yes" to question 12 also responded to questions 13 and 14, presumably to share his views on how the basic earnings per share calculation and disclosures may be improved.

4.5   Additional disclosures

Question 13 sought to determine whether additional disclosures were required to improve the basic earnings per share standard in order for it to be useful as a performance indicator.

Half of the respondents indicated that additional disclosures were not required and the other half indicated that additional disclosures were required.

The additional information that respondents require are as follows:

(i)   detailed information on the nature of extraordinary items,

(ii) detailed information on those items shown as abnormal,

(iii) sufficient information to determine the company's sustainable earnings, and

(iv) a further breakdown of earnings into continuing and discontinuing operations.

4.6   Method of calculation

Question 14 (Appendix A, section C) sought to find out whether respondents, that indicated that the current basic earnings per share does not satisfy their needs as a performance indicator, required a different method of calculation of basic earnings per share.

Six respondents indicated that they required different methods of calculation, while the other 8 indicated otherwise.

Respondents required the following changes to the calculation of basic earnings per share:

(i) the exclusion of "real" extraordinary items (i.e. extraordinary items as defined by the revised AC103) from the calculation,

(ii) a weighted average earnings per share (i.e. an average earnings per share over a number of periods) to be calculated, and

(iii) a recalculation of basic earnings per share if goodwill was written off against share premium rather than through the income statement.

The last response is interesting as it highlights the fact that in the past goodwill has been used to abuse and manipulate earnings in South Africa.

The most common problem respondents have with the current basic earnings per share is its all-inclusive method of calculation, whereby all items of income and expense, including extraordinary items, are included in the calculation. Respondents indicated that they would prefer to go back to a headline earnings per share "type" of calculation that excluded exceptional and non-recurring items. This is yet further indication that headline earnings per share is superseding basic earnings per share as the leading performance indicator as most analysts and users of financial statements regard it as being a good substitute for sustainable or maintainable earnings (contrary to AC306 which specifically states that headline earnings should not be regarded as maintainable earnings).

One respondent answered "no" question 14, but commented that different methods of calculation of basic earnings per share were not required as headline earnings per share is good enough for valuation purposes. Another respondent commented that basic earnings per share is useless as a performance indicator.

4.7   Modifications to basic earnings per share

The last question in this section (Appendix A, section C, question 15)
sought to determine whether, if no other changes were to be made to basic
earnings per share in the future, respondents were able to satisfactorily
modify basic earnings per share as it is currently disclosed, in order to make
it more useful as a performance indicator. If respondents answered "yes"
they were asked to indicate what modifications they would make and, if
they answered "no", to indicate why they were unable to modify basic
earnings per share information.

There were 13 responses to this question. Nine respondents indicated that
they were able to modify basic earnings per share information satisfactorily
will the other 4 indicated otherwise.

The respondents that indicated that they were able to satisfactorily modify
basic earnings per share information indicated that they would make the
following modifications:

(i)   adjust basic earnings per share to arrive at headline earnings per share
       (for example, by removing the effect of extraordinary items, non-
       recurring items and items of capital expenditure),

(ii)   adjust for goodwill write-offs and capital raising costs,

(iii) deduct extraordinary items from basic earnings per share, and

(iv)   adjust for non-recurring items.

It is interesting to note that most respondents supported modifications that
would result in headline earnings per share being reflected, reinforcing the
findings in section 4.6 that headline earnings per share is superseding basic
earnings per share as the most useful performance indicator.

Respondents that indicated that they could not satisfactorily modify basic earnings per share information, cited the following as reasons why they could not make modifications:

(i) it is not always clear how much goodwill is written off against the share premium account, and

(ii) there is not enough information or disclosure in the notes to the financial statements in order to make satisfactory modifications.

Respondents who indicated that there was insufficient information or disclosures in financial statements to make satisfactory modifications did not, however, indicate what information or disclosures were lacking. It is possible that these respondents require other information or disclosures that is not mandatory in terms of either the Companies' Act or generally accepted accounting practice.

One respondent commented that he preferred to focus on the underlying profit drivers of the business and its ability to generate cash flows before and after tax. The respondent indicated that as long as the various earnings per share calculations are consistent over time, he was not concerned with further modifications, but he was interested in the changes to the diluted earnings per share standard.

5.   DILUTED EARNINGS PER SHARE

Section D of the questionnaire dealt with diluted earnings per share. The objectives of section D of the questionnaire were as follows:

(i) to determine the impact the changes made to diluted earnings per share by the current AC104 has had on respondents' use of it as a financial performance indicator,

(ii) to determine if diluted earnings per share as it is now calculated and disclosed makes it useful as a financial performance indicator, and

(iii) if not, what additional information or modifications they require in order to make it useful.

5.1 Changes to the calculation of diluted earnings per share

As with basic earnings per share, the changes to diluted earnings per share that were brought about by the new AC104 were included in the questionnaire so that respondents were aware of the changes before answering this section of the questionnaire.

Only one change to the calculation of diluted earnings per share by the new AC104 was introduced: the anti-dilutive potential of ordinary shares must be ignored in calculating diluted earnings per share unless there is a compulsory obligation to issue shares. This means that if a conversion of another debt or equity instrument into ordinary shares causes an increase rather than a dilution of earnings per share, it should be ignored unless there is an obligation to issue those shares. This could occur in a situation where, for example, high interest-earning debentures are convertible into ordinary shares and the interest that would have been payable on the debentures is added back to earnings.

The first part of question 16 (Appendix A, section D) sought to find out whether the above change was to be considered either, or neither, as an improvement or a deterioration to the standard.

There were 4 non-responses to this question. This was ignored for the purposes of evaluation. Twenty-four responses were considered sufficient from which to draw conclusions.

Of the 24 respondents that answered the question, 20 respondents indicated that the change resulted in an improvement to the standard, while 4

indicated that the change resulted in neither an improvement nor a deterioration of the standard. None of the respondents indicated that the change resulted in a deterioration of the standard.

Question 17 (Appendix A, section D) sought to determine the impact of the above change on the use of diluted earnings per share as a performance indicator. There were 4 non-response to this question, which, again, were ignored for the purposes of evaluation.

Sixteen respondents indicated that the impact of the above two changes has been to increase their use of diluted earnings per share as a financial performance indicator. The other 8 respondents indicated that their use of diluted earnings per share as a financial performance indicator has remained unchanged.

The responses to the above two questions indicate clearly that the change effected by the new AC104 to the calculation of diluted earnings per share is regarded as a improvement to the standard.

In addition to the above analysis, the responses to question 17 were analysed in conjunction with the first part of question 16 in order to highlight any unusual or inconsistent responses. Table 13 presents the results of this analysis.

Table 13: Analysis of effect of the changes to the calculation of diluted earnings per share on the use of diluted earnings per share as a performance indicator

	Total	Increase in use	Decrease in use	Use unchanged
Improvement	20	15	0	5
Deterioration	0	0	0	0
Neither improvement nor deterioration	4	1	0	3

Table 13 highlights the fact that the majority of respondents view the changes as improvements and that diluted earnings per share has become more useful as a performance indicator.

One unusual response, which could not be explained, is also highlighted. One respondent indicated that the above change resulted in neither an improvement nor a deterioration of the standard, yet indicated that his use of diluted earnings per share would increase.

5.2   Changes to the disclosure requirements for diluted earnings per share

Two changes to the disclosure requirements for diluted earnings per share by the new AC104 were highlighted:

(i)   diluted earnings per share should be disclosed with equal prominence to basic earnings per share, and

(ii)   a reconciliation between the earnings used in the diluted earnings per share calculation and the net profit or loss for the period, and a reconciliation between the weighted average number of shares used in the diluted earnings per share calculation and that used in the basic earnings per share calculation must be disclosed.

The last two parts of question 16 (Appendix A, section D) sought to find out whether the above changes were to be considered either, or neither, as an improvement or a deterioration to the standard. There was two non-response to these questions. This was excluded from the analysis of this question. Twenty-six responses were considered a sufficient number of responses from which to draw conclusions.

Twenty-four respondents indicated that the first change was an improvement to the standard, while the other 2 respondents considered the first change to be neither an improvement nor a deterioration of the standard.

Twenty-three respondents indicated that the second change was an improvement to the standard, while the other 3 respondents to the question regarded the second change as neither an improvement nor deterioration of the standard.

Question 18 (Appendix A, section D) sought to determine what the overall effect of the above two changes was on the disclosure of diluted earnings per share. Twenty-three respondents indicated that the overall effect of the above two changes was an improvement to the standard, while the other 3 respondents indicated that the overall effect was neither an improvement nor a deterioration of the standard. None of the respondents considered either of the two changes to be a deterioration of the standard.

Question 19 (Appendix A, section C) sought to determine the impact of the above two changes on the use of diluted earnings per share as a performance indicator. There were two non-responses to this question, which were ignored for the purposes of evaluation.

The majority of respondents (18) indicated that the impact of the above two changes has been to increase their use of diluted earnings per share as a financial performance indicator, while the remaining 8 respondents indicated that their use of diluted earnings per share as a financial performance indicator has remained unchanged. None of the respondents indicated that their use of diluted earnings per share would decrease as a result of the changes.

In addition to the above analysis, the responses to question 19 were analysed in conjunction with question 18 to highlight any unusual or inconsistent responses. Table 14 presents the results of this analysis.

Table 14: **Analysis of effect of the changes to the disclosure of diluted earnings per share on the use of diluted earnings per share as a performance indicator**

	Total	Increase in use	Decrease in use	Use unchanged
Improvement	23	17	0	6
Deterioration	0	0	0	0
Neither improvement nor deterioration	3	1	0	2

Table 14 highlights the fact that the majority of respondents view the changes as improvements and that diluted earnings per share has become more useful as a performance indicator.

One unusual response, which could not be explained, is also highlighted. One respondent indicated that the above changes resulted in neither an improvement nor a deterioration of the standard, yet indicated that his use of diluted earnings per share would increase.

5.3   Use as a performance indicator

Question 20 (Appendix A, section D) sought to determine whether the diluted earnings per share, as is currently calculated and disclosed, satisfies respondents' needs as a financial performance indicator. There was one non-response to this question.

The overwhelming majority (21) indicated that the current diluted earnings per share satisfied their needs as a performance indicator, while the remaining 6 respondents indicated otherwise.

Respondents that indicated "no" to question 20 were prompted to answer questions 21 to 23. Three respondents who indicated "yes" to question 20 also responded to questions 21 and 23, in order to share their views on how the diluted earnings per share calculation and disclosures may be improved. There were thus 9 responses to these questions.

5.4   Additional disclosures

Question 21 sought to determine whether additional disclosures were required to improve diluted earnings per share in order for it to be useful as a performance indicator.

Four respondents indicated that additional disclosures were required and the other 5 respondents indicated that additional disclosures were not required.

The additional information that respondents require are as follows:
(i)   detailed calculations of diluted earnings per share, and
(ii) sufficient information in order to determine sustainable fully diluted earnings per share.

Sustainable earnings is an important concept in security valuation because it is necessary to determine the level at which earnings is likely to be maintained at to arrive at a reasonably accurate value for the security. The second response above indicates that investment analysts are moving towards a fully diluted earnings per share as a surrogate for sustainable earnings.

5.5   Method of calculation

Question 22 (Appendix A, section D) sought to find out whether respondents, that indicated that the current diluted earnings per share does not satisfy their needs in a performance indicator, required a different method of calculation to be used to calculate diluted earnings per share.

Two respondents indicated that they required different methods of calculation, while the other 7 indicated otherwise.

Respondents required only one change to the calculation of diluted earnings per share: the exclusion of extraordinary items of profit or loss from the earnings figure when calculating the diluted earnings to be used in the calculation.

This finding is consistent with the findings under section 4.6, with regards to basic earnings per share. Earnings used in the basic earnings per share calculation is adjusted for the effects of dilutive instruments to arrive at diluted earnings. Thus the requirement of excluding extraordinary items is a reasonable and expected finding.

5.6   Modifications to diluted earnings per share

The last question in this section (Appendix A, section D, question 23) sought to determine, whether, if no other changes were to be made to diluted earnings per share in the future, respondents were able to satisfactorily modify diluted earnings per share as it is currently disclosed to make it more useful as a performance indicator. If respondents answered "yes" they were asked to indicate what modifications they would make and, if they answered "no", to indicate why they were unable to modify diluted earnings per share information.

There were nine responses to this question. Four respondents indicated that they were able to modify diluted earnings per share information satisfactorily will the other 5 indicated otherwise.

The respondents that indicated that they were able to satisfactorily modify diluted earnings per share information indicated that they would make the following modifications:

(i) adjust for shares that were issued in lieu of dividends and adjust for shares cashed in for options,

(ii) adjust for extraordinary items and non-recurring items, and

(iii) adjust towards a diluted headline earnings per share.

The above further suggests that a move is being made towards headline earnings per share, and that now analysts and users are looking for the diluted headline earnings per share as a performance indicator. As one respondent commented: "only recurring earnings per share on a diluted basis has any valuation meaning."

Respondents that answered "no" to question 23 did not indicate why they were unable to satisfactorily modify the current diluted earnings per share disclosures to make it more useful as a performance indicator.

6.   COMPARISON BETWEEN DIFFERENT "PER SHARE" INDICATORS

The objective of section E of the questionnaire was to compare the use of basic earnings per share to other "per share" performance indicators namely, diluted earnings per share, headline earnings per share, cash flows per share and dividends per share.

6.1   Extent of use of indicators

The first question in this section (Appendix A, section E, question 24) was an exploratory question to determine if any of the above-mentioned indicators were used by the respondents.

All respondents indicated that they used diluted earnings per share, headline earnings per share and cash flows per share. Twenty-four respondents indicated that they used dividends per share, while four indicated that they did not. These 4 responses were checked for consistency with the respondents' answers to question 5. It was found that dividends per share was indicated as being used "seldom" by these respondents. Thus their answers to this part of question 24 were considered to be consistent.

The second question in this section (Appendix A, section E, question 25) required that the respondents rate their use of each of the indicators, diluted earnings per share, headline earnings per share, cash flows per share and dividends per share, against basic earnings per share in terms of their frequency of use. All respondents responded to this question.

The responses to question 25 were also checked individually against the responses to question 5 for consistency and were found to be consistent.

Table 15 presents the results of responses to question 25 in terms of percentage use.

Table 15: Frequency of use of different "per share" indicators as compared to basic earnings per share

	Used less	Used with the same frequency	Used more
Diluted earnings per share	11%	21%	68%
Headline earnings per share	7%	25%	68%
Cash flows per share	25%	39%	36%
Dividends per share	50%	25%	25%

This analysis, which is consistent with the findings in section 3.2, indicates that both diluted and headline earnings per share are used more frequently than basic earnings per share. Sixty-eight percent of the respondents indicated that they used diluted earnings per share and headline earnings more than basic earnings per share.

Cash flows per share are not as popular as diluted and headline earnings per share and, consistent with the findings in section 3.2, the majority of respondents use cash flows either with the same frequency or less than basic earnings per share.

Dividends per share is the least popular of all the "per share" indicators, with only 25% of respondents using it more than basic earnings per share. This finding is also consistent with the findings in section 3.2.

6.2   Ranking of the different "per share" indicators

The last question in this section (Appendix A, section E, question 26) sought to determine the usefulness of each of the four "per share" indicators and basic earnings per share by ranking each indicator from 1 to 5. A ranking of 1 denotes the most useful and 5 the least useful. Respondents were also asked to supply reasons for their rankings.

Responses to the rankings were analysed using the Likert scaling method. Rank 1 was assigned a weighting of 5 and rank 5 was assigned a weighting of 1. Each rank between these two extremes were assigned weightings at equally graduated intervals. A score was then calculated for each indicator. It was considered the higher the score, the greater the usefulness of the indicator. Table 16 presents the scores calculated.

Table 16:   Comparison between different "per share" indicators - scores calculated

	Score	Rank
Basic earnings per share	58	4
Diluted earnings per share	99	2
Headline earnings per share	123	1
Cash flows per share	86	3
Dividends per share	54	5

It is not surprising, in the light of the findings in sections 3.2 and 4.6, that headline earnings per share is regarded as the most useful "per share" indicator. Diluted earnings per share is also regarded as being more useful than basic earnings per share.

Consistent with the results in section 3.2, dividends per share is regarded as the least useful. A surprising result, however, is that respondents regard

cash flows per share to be more useful than basic earnings per share. In terms of their responses to question 5 and to question 25 as to the use of cash flows per share, most respondents used cash flows per share less frequently than basic earnings per share. A possible explanation is that, although cash flows per share has more informational content and is thus more useful, it is just used less in practice than various earnings per share indicators.

6.3 Reasons for assigning certain rankings to the various "per share" indicators

Respondents were asked to explain why they ranked the different per share indicators as they did. Interesting and unusual responses were offered in this section.

6.3.1 Basic earnings per share

Respondents that ranked basic earnings per share as rank 1 indicated that it was probably the best indicator beacuse it had the widest coverage across companies.

One respondent who ranked it as rank 2 commented that basic earnings per share was very "clean" but lacked certain information.

Other respondents who ranked it as either rank 3, 4 or 5 cited the following reasons:

(i) restatement of accounting income often changes the basic earnings per share calculated (i.e. changes in accounting estimates, prior year adjustments and adjustments for fundamental errors often changes the basic earnings per share calculated for prior periods),

(ii) it is not relevant as non-recurring items and extraordinary items can distort it,

(iii) it provides no insight into sustainable earnings because it is an all-inclusive measure that does not exclude non-recurring items and items of capital expenditure, and

(iv) headline earnings per share and diluted earnings per share are considered to be more useful.

6.3.2 Diluted earnings per share

Respondents who ranked diluted earnings per share as either rank 1 or 2 cited the following reasons:

(i) it reflects the full impact of the capital structure (by taking into account future changes in the number of ordinary shares),

(ii) it is relevant for future earnings predictions (this is probably because diluted earnings per share is closer to sustainable earnings than basic earnings per share),

(iii) it is the best indicator of growth and quality of earnings, and

(iv) it is a better performance indicator than basic earnings per share.

Respondents cited the following reasons for ranking diluted earnings per share as either rank 3, 4 or 5:

(i) there are too many reasons for dilution (for example, share options, convertible preference shares, convertible debentures and deferred ordinary shares), and

(ii) there is still a problem using actual earnings that includes non-recurring and extraordinary items in its calculation.

6.3.3 Headline earnings per share

All respondents ranked headline earnings per share as either rank 1, 2 or 3. The most common reason for doing so is that it acts as a better measure of sustainable earnings.

Other reasons for the rankings are the following:

(i) it is good for comparative purposes,

(ii) it is a useful basis for determining the earnings per share history of a company,

(iii) it is more in line with global accounting, and

(iv) it is what the market looks at the most, thus making it a useful benchmark from which to judge the performance of a company.

6.3.4 Cash flows per share

One respondent, who ranked cash flows per share as rank 1, indicated that his reason for doing so was that this indicates the actual return to the owner of the business.

Respondents who ranked cash flows per share as either rank 2 or 3 cited the following reasons:

(i) it shows whether a company is generating any cash,

(ii) cash flows are crucial for analysis purposes (this is probably because most investment decisions in traditional finance theory rely on the cash flows arising out of an investment),

(iii) it is a leading indicator for forthcoming problems because liquidity problems is usually a forerunner of bigger financial problems,

(iv) it indicates the operational efficiency of a company (the company's ability to generate cash flows from its operating activities),

(v) it is useful in the analysis of information technology companies and conglomerates where traditional valuation approaches are difficult to use,

(vi) it is important to assess the quality of earnings because earnings is of no use if the company cannot generate cash flows, and

(vii) cash flows cannot be manipulated by accounting policies, unlike earnings per share.

Respondents who ranked cash flows per share as either rank 4 or 5 indicated the following as reasons:

(i) it is used to gauge the strength of a company, but is not too helpful if the company is strong, and

(ii) it is not always relevant for all companies.

6.3.5 Dividends per share

None of the respondents ranked dividends per share as rank 1. Those respondents that ranked dividends per share as either rank 2 or 3 cited the following reasons:

(i) it indicates the financial strength and cash generating ability of a company,

(ii) it is an important indicator of the consistency of earnings and income to the shareholder, and

(iii) it is useful when assessing potential turn-around and cheap companies (other valuation techniques are probably difficult to use in assessing these companies, so a dividends-based valuation may be necessary).

It is interesting to note that one respondent, who ranked dividends per share as rank 2, indicated that his reason for doing so was that he used the dividend discount model to value companies.

Respondents that ranked dividends per share as either rank 4 or 5 cited the following reasons:

(i) it is not relevant in high growth companies which retain profits for the purposes of growth,

(ii) it is only relevant in income sensitive companies (probably because where a company's earnings fluctuates significantly from period to period, dividends per share is used as an indicator of financial strength),

(iii) it is of little significance in the pricing of shares, and

(iv) it is not material as it cannot be manipulated.

It is interesting to note reason (iv) above - it implies that the respondent only regards something as material only when it can be manipulated.

6.3.6 Other interesting comments

Several respondents indicated that they would find a diluted headline earnings per share to be very useful because it removes the effect of non-recurring items and shows the effect of the future dilutions in the earnings of a company. This further reinforces earlier findings that headline earnings per share is now regarded as the most useful performance indicator.

7. CONCLUSION

The use of earnings per share information as a performance indicator has been studied by surveying South African equity unit trust portfolio managers. The characteristics of a useful performance indicator has been identified, and the impact of the new AC104 on the use of both basic and diluted earnings per share as performance indicators has been assessed. In addition a comparison between different "per share" indicators has been completed. Respondents were also surveyed to determine whether both basic and diluted earnings per share disclosures were sufficient for use as performance indicators and whether additional information, different disclosures or modifications were necessary to make them useful.

CHAPTER VI: ANALYSIS OF RESULTS OF SURVEY

1.   INTRODUCTION

The final stage of the research project was to draw conclusions on the results of the survey of equity unit trust portfolio managers. There were two steps in this process. First, theoretical generalisations about the use of earnings per share information by South African equity unit trust portfolio managers were formulated. Where possible these were contrasted to the findings of previous research project undertaken by Fouche and van Rensburg. Then, once these generalisations were formulated, it was possible to answer the research sub-problems. This chapter concludes by addressing the research problem.

2.   THEORETICAL GENERALISATIONS FROM THE SURVEY

Based on the results of the survey of equity unit trust portfolio managers presented in chapter V, it was possible to draw theoretical generalisations about financial performance indicators, the use of different performance indicators, the use of both basic and diluted earnings per share information, and the use of different "per share" indicators by the equity unit trust portfolio managers.

2.1   Financial performance indicators   ✳

A theoretical generalisation can be drawn about the characteristics of a useful financial performance indicator. The characteristics of a useful performance indicator are shown in Table 17 (ranked from the most important to the least important characteristic).

Table 17: Characteristics of useful financial performance indicators

Characteristic	Score
(a) The data underlying the indicator are reliable.	49
(b) The method of calculation of the financial indicator should be resistant to manipulation.	47
(c) The method of calculation is consistent across different time periods.	46
(d) The financial indicator enables the user to make comparisons between different entities.	42
(e) The method of calculation is consistent across different entities.	41
(f) The options available for the inclusion or exclusion of items of information in the calculation is restricted.	40
(g) The financial indicator enables the user to make comparisons between different time periods.	37
(h) The underlying information relating to the indicator is available for scrutiny.	35
(i) The method of calculation is available for scrutiny.	34
(j) The financial indicator is easy to understand.	28
(k) The financial indicator is easy to compute.	19

The findings in this section answers sub-problem 2 which relates to the characteristics of a useful financial performance indicator.

2.2 The use of different financial performance indicators

Equity unit trust portfolio managers were surveyed to identify their frequency of use of different financial performance indicators. Three theoretical generalisations were drawn from this survey.

First, earnings based indicators, as opposed to cash flow indicators or indicators of returns to a company, are more widely used than any other type of indicator. This suggests that the unit trust portfolio managers are

more concerned with accounting on an accrual basis rather than the cash basis of accounting. Consistent with this generalisation is the finding that liquidity and cash flow indicators are used less frequently by the unit trust portfolio managers.

Second, headline earnings per share is the most used financial performance indicator. This finding is different from the findings of Fouche and van Rensburg (1999) who found that [basic] earnings per share was the most used forecast factor. This inconsistency may be explained by the fact that the survey by these two researchers was conducted during the period 1997-1998. Since that headline earnings per share has become more popular because of the changes to earnings necessitated by both the revised AC103 and the new AC104. In addition, that survey did not include headline earnings per share specifically as one of the forecast appraisal factors being surveyed.

Third, both basic and diluted earnings per share are used as performance indicators by equity unit trust portfolio managers.

The findings in this section partially answers sub-problem 6 which relates to the use of other "per share" indicators as compared to basic earnings per share. The rest of sub-problem 6 is answered in section 2.5 of this chapter.

2.3   Basic earnings per share

Unit trust portfolio managers were surveyed to determine how the new AC104 has impacted on the use of basic earnings per share as a performance indicator. Six theoretical generalisations may be drawn from the results of the survey.

First, changes made to the calculation of basic earnings per share by the new AC104 are improvements to the basic earnings per share standard. However, the use of basic earnings per share has remained unchanged.

Second, the change made to the disclosure of basic earnings per share by the new AC104 is an improvement to the standard. Use of basic earnings per share as a result of this has, however, remained unchanged.

Third, the current basic earnings per share satisfies the needs of the majority of the unit trust portfolio managers as a performance indicator. However, this majority was only by a small margin, so a significant percentage of unit trust portfolio managers are not satisfied with basic earnings per share as a performance indicator.

Fourth, additional disclosures are required by unit trust portfolio managers who are not satisfied with basic earnings per share as a performance indicator. Most disclosures required relate to additional information in respect of extraordinary items, abnormal items, sustainable earnings and a breakdown into continuing and discontinuing operations.

Fifth, different methods of calculation are required by those unit trust portfolio managers who are not satisfied with the current basic earnings per share as a performance indicator. The changes required to the calculation of basic earnings per share were in respect of the exclusion of extraordinary and non-recurring items from the calculation and a recalculation of earnings if goodwill is written off against share premium rather than through the income statement.

Sixth, if no further amendments were to be made to the basic earnings per share standard, unit trust portfolio managers are able to satisfactorily modify basic earnings per share information to make it useful as a

performance indicator. The most common modification cited was in respect of the adjustment for extraordinary items. However, certain unit trust managers are unable to modify basic earnings per share information satisfactorily due to insufficient disclosure and information in order to effect the required modifications. This is probably because they require disclosures and information that are not mandatory by either the Companies' Act or generally accepted accounting practice.

The findings in this section answer sub-problems 3, 4 and 5 as far as basic earnings per share is concerned.

2.4   Diluted earnings per share

Unit trust portfolio managers were also surveyed to determine how the new AC104 has impacted on the use of diluted earnings per share as a performance indicator. Six theoretical generalisations may be drawn from the results of the survey.

First, the change made to the calculation of diluted earnings per share by the new AC104 is an improvement to the diluted earnings per share standard. As a consequence, the use of diluted earnings per share as a performance indicator has increased.

Second, the changes made to the disclosure of diluted earnings per share by the new AC104 are improvements to the standard. As a result of these changes use of diluted earnings per share has increased.

Third, the current diluted earnings per share satisfies the needs of the majority of the unit trust portfolio managers as a performance indicator.

This section answers sub-problems 3 and 4 as far as diluted earnings per share is concerned. Sub-problem 5, which relates to additional disclosures required by unit trust portfolio managers, is not applicable to diluted earnings per share because the majority of the respondents to the surveyed indicated that they were satisfied with diluted earnings per share as a performance indicator.

2.5   The use of other "per share" indicators

Unit trust portfolio managers were surveyed to determine the frequency of use of different "per share" performance indicators. In addition they were required to indicate the relative usefulness of the different "per share" indicators in relation to one another. Three theoretical generalisations can be drawn from the results of the survey.

First, headline earnings per share and diluted earnings per share are used with greater frequency than basic earnings per share. Cash flows per share are used at the same frequency as basic earnings per share and dividends per share is used less frequently than basic earnings per share.

Second, basic earnings per share is considered to be less useful than headline earnings per share, diluted earnings per share and cash flows per share.

Third, headline earnings per share is considered to be the most useful "per share" indicator, followed by diluted earnings per share.

The findings in this section answer sub-problem 6.

2.6   Other generalisations arising out of the survey

Two other generalisation arose from the survey, relating to the factors that unit trust portfolio managers consider when undertaking investment decisions.

First, financial performance is the most important factor considered by unit trust portfolio managers when making investment decisions.

Second, sentiment and instinct influence investment decisions but public opinion is not a factor that is considered.

3.   CONCLUSION - ADDRESSING THE RESEARCH PROBLEM

The research problem was developed in chapter III. All research sub-problems, with the exception of sub-problem 1, were answered in section 2 of this chapter. This section of the chapter first answers sub-problem 1. The answers of all the sub-problems are then used to address the research problem.

3.1   Addressing the sub-problem 1

With regard to the first sub-problem, six significant differences between the old AC104 and the new AC104 were identified. Three of these related to basic earnings per share and other three to diluted earnings per share. The literature survey identified that harmonisation with international standards was the reason for these changes to the South African standard.

3.2   Addressing the research problem

The above theoretical generalisations and the answers to the research sub-problems identified that equity unit trust portfolio managers regard earnings per share disclosures (basic and diluted) as being at least partially sufficient to meet their needs as performance indicators, and that there are some additional disclosures and amendments to the calculation of basic earnings per share information that equity unit trust portfolio managers would find useful.

The answers to the sub-problems indicated that earnings per share information disclosed by South African listed companies is generally sufficient to be useful to equity unit trust portfolio managers as a performance indicator, although this group also identified additional disclosures and amendments to the calculations that would be useful.

CHAPTER VII: CONCLUSION

1. INTRODUCTION

The research project had the following objectives:

(i) to determine what changes have been made to earnings per share calculation and disclosure by the issue of the new AC104,

(ii) to determine what characteristics South African equity unit trust portfolio managers regard as indicative of a good financial performance indicator,

(iii) to determine what impact the changes made to the earnings per share calculation and disclosure by the new AC104 has had on the use of earnings per share information by South African unit trust portfolio managers as a performance indicator, and

(iv) to determine the extent of use of other similar performance indicators, such as headline earnings per share and cash flows per share, compared to earnings per share.

2. MAIN RESEARCH FINDINGS

A number of theoretical generalisations were drawn from the survey of equity unit trust portfolio managers. These are summarised below.

2.1 Financial performance indicators

The following findings were made regarding financial performance indicators:

(i) the characteristics of a useful financial performance indicator relate to reliability, consistency, comparability, adequate disclosure and ease of computation and understanding,

(ii) earnings based indicators are more widely used than any other type of indicator,

(iii) headline earnings per share is the most used financial performance indicator, and

(iv) both basic and diluted earnings per share are used as performance indicators by equity unit trust portfolio managers.

2.2 Basic earnings per share

The following findings were made regarding basic earnings per share:

(i) the changes made to the basic earnings per share standard by the new AC104 are improvements to the standard, but the use of basic earnings per share has remained unchanged,

(ii) the change made to the disclosure of basic earnings per share by the new AC104 is an improvement to the standard, but the use of basic earnings per share has remained unchanged, and

(iii) the current basic earnings per share satisfies the needs of the majority of the unit trust portfolio managers for use as a performance indicator.

2.3 Diluted earnings per share

The following findings were made regarding diluted earnings per share:

(i) the change made to the calculation of diluted earnings per share by the new AC104 is an improvement to the diluted earnings per share standard and, as a consequence, the use of diluted earnings per share as a performance indicator has increased,

(ii) the changes made to the disclosure of diluted earnings per share by the new AC104 are improvements to the standard and, as a consequence, use of diluted earnings per share has increased, and

(iii) the current diluted earnings per share satisfies the needs of the majority of the unit trust portfolio managers as a performance indicator.

2.4   The use of other "per share" indicators

The following findings were made regarding the use of other "per share" indicators:

(i)   headline earnings per share and diluted earnings per share are used with greater frequency than basic earnings per share,

(ii)   basic earnings per share is considered to be less useful than headline earnings per share, diluted earnings per share and cash flows per share, and

(iii)   headline earnings per share is considered to be the most useful "per share" indicator.

2.5   Factors that influence investment decisions

The following findings were made in respect of factors that influence investment decisions:

(i)   financial performance is the most important factor considered by unit trust portfolio managers when making investment decisions, and

(ii)   other factors also considered when making investment decisions are sentiment and instinct while public opinion is not a factor that is considered.

2.6   Headline earnings per share

A finding that has come through several times during the presentation of the results of the survey and the analysis of the results above is that headline earnings per share has superseded basic earnings per share as the

most frequently used financial performance indicator. Suggestions to improve basic earnings per share as a performance indicator has emphasised the exclusion of non-recurring items and extraordinary items from the earnings figure used in the calculation of earnings per share, which would result in a basic earnings per share that is closer to headline earnings per share.

In addition, the disclosure of a fully diluted headline earnings per share figure has been suggested because it resembles sustainable earnings per share better than any other "per share" indicator. This may be an indication that perhaps diluted headline earnings per share may soon become an important financial performance indicator.

3. AREAS FOR FURTHER RESEARCH

The following areas for research were identified:

(i)   whether there is a need to calculate and disclose basic earnings per share in the light of headline earnings per share superseding basic earnings per share in terms of usefulness, and

(ii) the use by other users of financial statements of earnings per share information as a performance indicator.

4. CONCLUSION

The research project established that the majority of equity unit trust portfolio managers are satisfied with the earnings per share disclosures made by South African listed companies. The four objectives of the research were achieved and several generalisations were drawn from the survey of equity unit trust portfolio managers. Finally, further areas for research have been identified.

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QUESTIONNAIRE TO EQUITY UNIT TRUST PORTFOLIO MANAGERS

EARNINGS PER SHARE

Section A – Respondent Profile

1   Which of the following qualifications have you obtained?

CA (SA)		10
CFA		10
MBA		6
Actuarial Science		1
B.Com		8
B.Com (Hons)		7
Other (please specify)	B.Sc	1
Other (please specify)	PhD Physics	1
Other (please specify)	B.Sc Eng	2
Other (please specify)	B.Compt (Hons)	1
Other (please specify)	CMA	2
Other (please specify)	B.BusSc	1
Other (please specify)	B.Sc (Hons) PDM	1
Other (please specify)	MBL	1

2. How many years' experience have you had in equity analysis (that is, the analysis of the performance of shares and share prices)?

0 - 5 years	14
6 - 10 years	6
11 - 15 years	3
16 - 20 years	5
20 - 25 years	0
25 years and over	0

3. What factors do you consider when investing in or disinvesting from shares? (i.e. factors taken into account when selecting stocks to add to or remove from your portfolio)

	Always	Almost Always	Sometimes	Seldom	Never	
(a) Financial performance 125	25	3 12	0	0	0	4,89
(b) Sentiment (e.g. empowerment shares) 30	6	5 20	14 42	2 4	1	3,46
(c) Instinct 20	4	7 28	13 39	3 6	1	3,357
(d) Public opinion 10	2	1 4	7 21	9 18	9	2,21

(e) Other (please specify)

_____

_____

_____

Section B – Financial Performance Indicators

The objective of this study is to ascertain the characteristics of a useful financial performance indicator, and, using those characteristics, to ascertain if the new earnings per share calculation and disclosure required by AC104, the new accounting statement on earnings per share meet the requirements of a useful financial performance indicator. Should the new earnings per share disclosure or calculation to be found lacking, then recommendations are sought as to how this may be improved.

4. To be useful, financial performance indicators should have the following characteristics:

	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
(a) The data underlying the indicator are reliable.	21	7	0	0	0
(b) The method of calculation is consistent across different time periods.	21	5	1	1	0
(c) The method of calculation is consistent across different entities.	17	7	4	0	0
(d) The financial indicator enables the user to make comparisons between different entities.	15	12	1	0	0
(e) The financial indicator enables the user to make comparisons between different time periods.	16	8	2	1	1
(f) The method of calculation of the financial indicator should be resistant to manipulation.	20	7	1	0	0
(g) The options available for the inclusion or exclusion of items of information in the calculation is restricted.	14	12	2	0	0
(h) The financial indicator is easy to understand.	7	15	5	1	0
(i) The financial indicator is easy to compute.	5	9	14	0	0
(j) The underlying information relating to the indicator is available for scrutiny.	12	12	3	1	0
(k) The method of calculation is available for scrutiny.	12	13	1	1	1

(l) Other (please specify)

_____

_____

5. How often do you use the following indicators of financial performance in equity analysis?

	Always	Almost Always	Sometimes	Seldom	Never
(a) Earnings per share (basic)	12	6	5	4	1
(b) Diluted earnings per share	15	10	3	0	0
(c) Headline earnings per share	18	9	1	0	0
(d) Price-earnings ratio	18	7	3	0	0
(e) Pre-tax profits	4	12	10	0	2
(f) Post-tax profits	3	11	13	1	0
(g) Operating cash flows	8	9	10	1	0
(h) Operating cash flow per share	6	9	12	1	0
(i) Net cash flow per share	5	5	15	2	1
(j) Return on Capital Employed	10	12	5	1	0
(k) Market value of shares	13	9	3	2	1
(l) Turnover : Capital Employed	1	4	9	8	6
(m) Dividends per share	4	3	16	5	0
(n) Return on assets	3	8	12	4	1
(o) Gearing ratio	5	10	12	1	0
(p) Current asset ratio (liquidity)	1	5	8	13	1
(q) Acid test ratio (liquidity)	1	2	8	15	2

Question 5 continued...

(r) Other (please specify):

	Always	Almost Always	Sometimes	Seldom	Never
EV/ EBITPA	2	0	0	0	0
EV / Sales	0	1	0	0	0
NAV / share	1	0	0	0	0
IRR	1	1	0	0	0
Rev/employee	0	0	1	0	0
Market cap / employee	0	0	1	0	0
Operating margin	0	1	0	0	0
Effective tax rate	0	1	0	0	0
PE relative to FII	1	0	0	0	0
% Discount to NAV (PE relative)	1	0	0	0	0
NPV	1	0	0	0	0
PEG ratio	2	1	0	0	0
Relative performance to indices	1	0	0	0	0
Shares traded / month	1	0	0	0	0
PE relative to the PE of the market	1	0	0	0	0

6. Of the financial performance indicators mentioned in question 5 above, which five do you find the most useful? (ranked in order from the most useful to the least useful)

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
(a) Earnings per share (basic)	3	0	3	1	0
(b) Diluted earnings per share	2	2	1	2	1
(c) Headline earnings per share	7	5	3	0	0
(d) Price-earnings ratio	3	7	1	1	4
(e) Pre-tax profits	0	1	0	2	1
(f) Post-tax profits	0	0	0	0	2
(g) Operating cash flows	0	0	4	2	1
(h) Operating cash flow per share	1	2	1	1	1
(i) Net cash flow per share	2	0	0	0	0
(j) Return on Capital Employed	3	2	2	4	2
(k) Market value of shares	1	0	3	1	1
(l) Turnover : Capital Employed	0	0	0	0	0
(m) Dividends per share	0	1	0	2	0
(n) Return on assets	0	0	0	3	1
(o) Gearing ratio	0	0	2	1	4
(p) Current asset ratio (liquidity)	0	0	0	0	0
(q) Acid test ratio (liquidity)	0	0	0	0	0

Section C – Basic Earnings per Share

As from 1 January 1999, a new accounting statement on earnings per share came into effect. Several changes were made to both the basic earnings per share (i.e. the ordinary earnings per share) as well as to diluted earnings per share.

7. Are you aware of the 'new' SAICA Accounting Standard AC104 which superseded the 'old' AC104 as from 1 January 1999?

   Yes [16]   No [12]

The following changes were made to the accounting standard for the calculation and disclosure basic earnings per share by the new AC104:

Basic eps calculation:
(1) Earnings per share is now calculated using net earnings after tax, outside shareholders' interest AND extraordinary items.
(2) There is no longer a requirement to adjust earnings for seasonal variations.

Basic eps disclosure:
(3) If the number of shares changed after year-end without a corresponding change in resources (e.g. share splits, consolidation of shares or capitalisation issues), it is now mandatory that the earnings per share be adjusted for such change.

8. In your opinion, has

	An improvement to the standard	A deterioration of the standard	Neither an improvement nor a deterioration of the standard
change (1) above resulted in	15	6	6
change (2) above resulted in	16	0	11
change (3) above resulted in	20	1	6

9. In your opinion, the overall effect of the above two changes to the calculation of basic earnings per share in the new statement has resulted in

   (a) an improvement to basic eps   [15]

   (b) a deterioration of basic eps   [3]

   (c) neither an improvement to nor a deterioration of basic eps   [9]

10. The impact of the above changes to the calculation of basic earnings per share has

been to:

    (a) increase your use of basic earnings per share as a financial performance indicator

    (b) decrease your use of basic earnings per share as a financial performance indicator

    (c) leave your use of basic earnings per share as a financial performance indicator unchanged

7
6
14

11. The impact of the above changes to the <u>disclosure</u> of basic earnings per share has been to:

    (a) increase your use of basic earnings per share as a financial performance indicator

    (b) decrease your use of basic earnings per share as a financial performance indicator

    (c) leave your use of basic earnings per share as a financial performance indicator unchanged

10
3
14

12. Keeping in mind the characteristics of a useful financial performance indicator as outlined in question 3 above, does the current basic earnings per share satisfy your needs as a financial performance indicator?

Yes | 15 | No | 13 |

If you answered 'Yes' to the above question please skip to Section D.
If you answered 'No' to question 12, please answer Questions 13 - 15:

13. Do you require additional information with regard to the <u>disclosure</u> of basic earnings per share for it to be useful as a performance indicator?

Yes | 7 | No | 7 |

If you answered 'Yes' please indicate what additional information you would require:

_____

_____

_____

14. Do you require that different methods of <u>calculation</u> be used to calculate basic earnings per share?

Yes | 6 | No | 8 |

If you answered 'Yes' please indicate what methods or changes to the current method you would require:

_____

_____

_____

15. If no other changes were to be made to basic earnings per share in the future, are you able to satisfactorily modify basic earnings per share information as currently provided in financial statements to make basic earnings per share more useful as a financial performance indicator?

Yes | 9 | No | 4 |

If you answered 'Yes' please indicate what modifications you would make:

_____

_____

_____

If you answered 'No', please indicate reasons why you are not able to satisfactorily modify basic earnings per share information:

_____

_____

Please proceed to Section D.

Section D – Diluted Earnings per Share

In addition to the changes made to basic earnings per share the following changes were also made to the calculation and disclosure of diluted earnings per share by the new AC104.

Diluted eps calculation:
(1) The anti-dilutive potential of ordinary shares must be ignored in calculating diluted earnings per share unless there is a compulsory obligation to issue shares (i.e. if potential ordinary shares result in an increase rather than a decrease in the diluted earnings per share, it must be excluded from the calculation of fully diluted earnings per share).

Diluted eps disclosure:
(2) Diluted earnings per share must be disclosed with equal prominence to basic earnings per share.
(3) A reconciliation of the earnings used in the diluted earnings per share calculation to the net profit or loss for the period must be disclosed. In addition, a reconciliation of the weighted average number of shares used in the diluted earnings per share calculation to that used in the basic earnings per share calculation must be disclosed.

16. In your opinion, has

	An improvement to the standard	A deterioration of the standard	Neither an improvement nor a deterioration of the standard
change (1) above resulted in	20	0	4
change (2) above resulted in	24	0	2
change (3) above resulted in	23	0	3

17. The impact of the above changes to the calculation of diluted earnings per share has been to:

(a) increase your use of diluted earnings per share as a financial performance indicator	16
(b) decrease your use of diluted earnings per share as a financial performance indicator	0
(c) leave your use of diluted earnings per share as a financial performance indicator unchanged	8

18. In your opinion, the overall effect of the above two changes to the <u>disclosure</u> of diluted earnings per share in the new statement has resulted in

   (a) an improvement to diluted eps

   (b) a deterioration of diluted eps

   (c) neither an improvement to nor a deterioration of diluted eps

23
0
3

19. The impact of the above changes to the <u>disclosure</u> of diluted earnings per share has been to:

   (a) increase your use of diluted earnings per share as a financial performance indicator

   (b) decrease your use of diluted earnings per share as a financial performance indicator

   (c) leave your use of diluted earnings per share as a financial performance indicator unchanged

18
0
8

20. Keeping in mind the characteristics of a useful financial performance indicator as outlined in question 3 above, does the current diluted earnings per share satisfy your needs as a financial performance indicator?

   Yes | 21 | No | 6 |

If you answered yes to the above question please skip to Section E.
If you answered 'No' to question 20, please answer Questions 21 - 23:

21. Do you require additional information with regard to the <u>disclosure</u> of diluted earnings per share for it to be useful as a performance indicator?

   Yes | 4 | No | 5 |

   If you answered 'Yes' please indicate what additional information you would require:

   _____

   _____

   _____

22. Do you require that different methods of <u>calculation</u> be used to calculate diluted earnings per share?

Yes ☐ 2   No ☐ 7

If you answered 'Yes' please indicate what methods or changes to the current method you would require:

_____

_____

_____

23. If no other changes were to be made with regard to diluted earnings per share in the future, are you able to satisfactorily modify diluted earnings per share information as currently provided in financial statements to make diluted earnings per share more useful as a financial performance indicator?

Yes ☐ 4   No ☐ 5

If you answered 'Yes' please indicate what modifications you would make:

_____

_____

_____

If you answered 'No', please indicate reasons why you are not able to satisfactorily modify diluted earnings per share information:

_____

_____

Please proceed to Section E.

Section E – Comparison between different 'per share' indicators

24. Have you ever used the following 'per share' indicators?

	Yes	No
Diluted earnings per share	28	0
Headline earnings per share	28	0
Cash flows per share	28	0
Dividends per share	24	4

25. As compared to <u>basic earnings per share</u>, how often are the following financial performance indicators used?

	Used less	Used with the same frequency	Used more
Diluted earnings per share	3	6	19
Headline earnings per share	2	7	19
Cash flows per share	7	11	10
Dividends per share	14	7	7

26. Rank the following per share indicators in terms of usefulness (rank the one you find most useful as number 1 and the least useful as number 5) - Please give reasons for your ranking.

	Rank 1	Rank 2	Rank 3	Rank 4	Rank 5
Basic earnings per share	2 10	2 8	3 9	10 20	11
Diluted earnings per share	7 35	9 36	6 18	4 8	2
Headline earnings per share	18 90	4 16	5 15	1 2	0
Cash flows per share	1 5	10 30	8 24	8 16	1
Dividends per share	0	3 12	6 18	5 10	14

If you would like to receive a synopsis of the research findings please tick the appropriate box:

Yes   23   No   5