# ASSOCIATION BETWEEN EXTRAORDINARY ITEMS AND STOCK PRICES AND THE USE OF EXTRAORDINARY ITEMS TO SMOOTH INCOME IN PUBLICLY QUOTED COMPANIES IN KENYA

BY AMOS MUCERU NJARAMBA

SUPERVISOR: PROFESSOR J. H. KIMURA

A MANAGEMENT RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS AND ADMINISTRATION. FACULTY OF COMMERCE, UNIVERSITY OF NAIROBI.

JUNE 1990.

## DECLARATION

This management project is my original work and has not been presented for a degree in any other university.

31/8/90

Mr Amos Muceru Njaramba

This management project has been submitted with my approval as the university supervisor.

12/9/90

Professor J. H. Kimura

DEDICATION

To my parents, Mr. Joseph Ndungu Muceru and Mrs. Beth Wairimu Ndungu, and to all members of my family for their effort, patience, guidance and encouragement throughout my academic life; and to Miss Nancy Wangui Karanja, who proved quite helpful during my MBA study.

TABLE OF CONTENTS

DECLARATION

DEDICATION

LIST OF CONTENTS

ACKNOWLEDGEMENTS.....(i)

ABSTRACT.....(ii)

LIST OF TABLES.....(iv)

ABBREVIATIONS USED.....(v)

CHAPTER ONE: INTRODUCTION.....1

BACKGROUND OF THE STUDY.....1

STATEMENT OF THE PROBLEM.....3

OBJECTIVES OF THE STUDY.....4

IMPORTANCE OF THE STUDY.....4

OVERVIEW OF THE PAPER.....5

CHAPTER TWO: LITERATURE REVIEW.....7

TREATMENT OF EXTRAORDINARY ITEMS.....7

DEFINITION OF TERMINOLOGY.....7

CRITERIA FOR EXTRAORDINARY ITEMS.....10

UNUSUAL NATURE... .....10

INFREQUENCY OF OCCURRENCE.....11

MATERIALITY.....12

BASIC DIVERGENCE THOUGHT.....14

ALL-INCLUSIVE INCOME STATEMENT.....14

CURRENT OPERATING PERFORMANCE CONCEPT.17

DISCLOSURE.....19

EXTRAORDINARY ITEMS.....19
UNUSUAL OR FREQUENTLY OCCURRING ITEMS.20
VALUATION OF COMPANIES USING
EARNINGS PER SHARE.....21
INCOME SMOOTHING.....25
CHAPTER THREE: RESEARCH DESIGN.....31
INTRODUCTION.....31
THE POPULATION.....31
DATA COLLECTION METHOD: SECONDARY DATA.33
TECHNIQUES OF ANALYSIS.....35
CHAPTER FOUR: PRESENTATION AND DICUSSION OF FINDINGS.39
INTRODUCTION.....39
CHARACTERISTICS OF THE COMPANIES USED
IN THE STUDY.....41
THE ASSOCIATION BETWEEN EARNINGS
AND STOCK PRICES.....45
USE OF EXTRAORDINARY ITEMS TO SMOOTH
INCOME.....50
DISCUSSION OF RESULTS.....54
CHAPTER FIVE: CONCLUSION.....62
SUMMARY OF FINDINGS.....62
RECOMMENDATIONS.....63
LIMITATIONS OF STUDY.....65
SUGGESTIONS FOR FURTHER RESEARCH.....65

APPENDICES.....67

APPENDIX 1. LIST OF COMPANIES QUOTED ON THE NAIROBI STOCK EXCHANGE AS AT 31ST DECEMBER, 1988.....67

APPENDIX 2. DATA ON EARNINGS BEFORE EXTRAORDINARY ITEMS, EARNINGS AFTER EXTRAORDINARY ITEMS AND STOCK PRICES.....69

BIBLIOGRAPHY .....77

## ACKNOWLEDGEMENT

I wish to extend my sincere gratitude to the many individuals who directly or indirectly contributed to this study.

Special thanks to Professor J. H. Kimura for his invaluable suggestions and criticisms as my supervisor. throughout the writing of this paper.

I am deeply indebted to Miss Nancy Wangui Karanja, for all that she has done, both morally and materially, to see that I complete my MBA course without undue pressure.

I am grateful to my brother Mr. Peter Nganga Ndungu and my cousins Jane Wanjiru and Amos M. Mutogia, for their encouragement and interest in my academic progress.

My sincere thanks to Miss Wanjiku Ngahu, Mr.Josphat Mboya, Mr.James Mwangi Karanja, Mr. Kinandu Muragu, Mr. John Macharia Ndungu, Dr.Richard Gitonga, Dr.Robert Gitonga, Miss Joanne Wamuyu Nganga and Miss Joan Wacera Kerigu for their assistance.

To all my fellow MBA classmates, especially Jackson Maalu, S. Nzonzi, Alex Gitari, James Muturi, Peter Kiilu and Dominic Ngaba, I extend my heartfelt gratitude and appreciation for their help and companionship in the course of this study.

Finally, whereas I received a lot of support in the production of this paper, all the deficiencies and errors that may herein be contained are my responsibility.

## ABSTRACT

The focus of this study was twofold:

1. To determine which of the two figures, earnings before extraordinary items or earnings after extraordinary items has a stronger relationship with stock prices.
2. To determine whether publicly quoted Companies in Kenya use extraordinary items to smooth income.

The literature reviewed brought out the requirements of the various accounting standards as regards treatment and presentation of extraordinary items. A section dealing with the association between earnings per share and stock prices is included. Lastly, literature on smoothing of income is included.

The population of interest for this study comprised of the publicly quoted companies in Kenya, quoted as at 31st December 1988. Out of the 56 Companies, only 31 Companies were included in this study. The rest had not reported extraordinary items during the period covered by the study.

The findings of the study suggested that there is no significant difference between the strengths of the relationship between earnings before extraordinary items and stock prices and earnings after extraordinary items and stock prices.

The findings also suggested that there is no difference between the smoothness of earnings before extraordinary items and earnings after extraordinary items. This indicates publicly quoted Companies in Kenya do not use extraordinary items to smooth income. It also raises questions about the usefulness of a standard whose effect is.probably.minimal.

LIST OF TABLES

1. List of companies used.....32
2. Data collection form .....35
3. EOI as a percentage of earnings after EOI.....40
4. Companies included in this study.....41
5. Summary of characteristics of companies used.....42
6. Detailed characteristics of companies used in this study..43
7. Size, liquidity and capital structure of companies (1987).44
8. Absolute coefficients of correlation for the companies classified in terms of industries.....46
9. Coefficients of correlation.....47
10. Standard deviations for companies classified in terms of industries.....51
11. Standard deviation for companies.....51
12. Comparison of the number of companies used with those not used.....59
13. Comparison of characteristics of companies used in this study with those of companies not used.....60
14. Comparison of the size, liquidity ratio and debtNtotal equity.....61

## ABBREVIATIONS USED

| | |
|---|---|
| AAA | American Accounting Association |
| ACCA | Association of Certified Accountants |
| AICPA | American Institute of Certified Public Accountants |
| APB | Accounting Principles Board |
| ASC | Accounting Standards Committee |
| CICA | Canadian Institute of Chartered Accountants |
| ED | Exposure Draft |
| EOI | Extraordinary Item |
| FASB | Financial Accounting Standards Board |
| IAS | International Accounting Standard |
| IASC | International Accounting Standard Committee |
| ICPAK | Institute of Certified Public Accountants of Kenya |
| KAS | Kenya Accounting Standard |
| PSC | Professional Standards Committee |
| SSAP | Statement of Standard Accounting Practice |

# INTRODUCTION

## BACKGROUND

Accounting like any other profession is backed by a rich body of theory. The theory and/or practice of accounting can be traced to as early as 3500 BC1. As time passes accounting theorists and practitioners continue to add to this body of knowledge. To facilitate this development of accounting theory, accountants have formed themselves into associations charged with the responsibility of carrying out research. The end result of the research is the accounting standards.

Among the major accounting bodies are Financial Accounting Standards Board, American Accounting Association, Association of Certified Accountants, Australian Society of Accountants, Institute of Chartered Accountants in England and Wales and of course here in Kenya we have Institute of Certified Public Accountants of Kenya.

---

1Mwarania K.M.: "Financial Accounting Standards: An Analysis of the Standard Setting Process in Kenya",Unpublished MBA Project.1983.

Research by these accounting bodies has led to the development of accounting standards in various subjects.The accounting standards serve as a guide to accountants when they are preparing financial statements.

On the international scene the International Accounting Standards Committee has published at least twenty six standards. Here in Kenya. the situation is different; the Professional Standards Committee has only managed to give guidance on only fourteen subjects (as at 31st December 1989).

One of the areas for which all the major accounting bodies have issued an accounting standard is "Accounting for extraordinary items . In Kenya the area is covered by Kenya Accounting Standard number two (KAS2) on "Extraordinary and Prior Period Items'.

An extraordinary item (EOI) is defined as an item that derives from outside the ordinary activities of an entity and occurs infrequently. After the item satisfies both requirements, the accountants have to consider whether it is material or not. If it is material KAS 2 requires that the item be disclosed separately less attributable tax.

There are two extreme ways of presenting EOI, viz:

(1) the all-inclusive method ;this is where the EOI is aggregated together with ordinary income.

(2) current operating performance method: this is where the EOI is charged or credited directly to retained earnings.

Arguments for and against each method lead to some disagreement among accountants. EOI were subject of debate as early as 1947.2 The standards issued so far advocate a middle of the road approach.

## STATEMENT OF THE PROBLEM

EOI affect the amount of reported net income depending on whether the EOI is a loss or a gain. By increasing or reducing the amount of net income EOI could be used to smooth income.Smoothing is the intentional dampening of fluctuations about some level of earnings that is currently considered to be normal for a firm.3 This researcher wants to find out whether Kenya's publicly quoted companies use EOI to smooth their incomes.

---

2 Bernstein L.A.: "Accounting for Extraordinary Gains and Losses". The Ronald Press Co.,New York 1967,pp.2

3 Beidleman, Carl R.: "Income smoothing: The role of management", Accounting Review.Vol 48 oct 1973 pp. 653

Finance theory indicates that there is a relationship between earnings per share for a company and its stock price.4 Inclusion or non-inclusion of EOI in the income statement will affect the amount of net income. This researcher wants to find out which of the two,i.e. earnings before EOI (E1) or earnings after EOI (E2), has a stronger relationship with stock prices.

## OBJECTIVES OF THE STUDY

The objectives of this study are two-fold:-

(1) To determine whether EOI are used to smooth income by publicly quoted companies in Kenya.

(2) To determine whether earnings before EOI have a stronger or weaker relationship with stock prices than earnings after EOI.

## SIGNIFICANCE OF THE STUDY.

This study and the results thereof is likely to be of interest to the following groups of people:-

(1) Managers and Directors:

The findings of this study might help the firm managers and directors to know how the decision to classify an item as extraordinary can affect the stock prices.

---

4 Dougall.H.E.: Investment.9th Edition,Prentice-Hall Inc. Englewood Cliffs N.J.,1920 pp. 450.

(2) Professional Accounting Bodies:

The professional bodies dealing with promulgation of accounting standards are likely to benefit from the results of the study. The study should bring out the importance of EOI.

(3) Academics:

The findings will add to a body of knowledge in the finance/accounting discipline and can form a basis for further research.

## OVERVIEW OF THE PAPER

This chapter is an introduction to the project.It deals with issues such as the problem under study, the objectives of the study and the importance of the study .

Chapter two summarises the literature review relevant to the study. Within this chapter, the criteria for classification of EOI, disclosure requirements of EOI and the basic divergences of thought regarding accounting for EOI are discussed. Before the close of the chapter is a summary of the literature on the valuation of companies using earnings per share. Lastly, there is a discussion on income smoothing.

Chapter three provides the methodology used in the research. It is followed by chapter four which is a presentation and discussion of the results s of the study.

Chapter five the last chapter is composed of a summary conclusions, limitations of the study and recommendations. Suggestions for further research are also given. Appendices and Bibliography are presented d separately at the end.

## CHAPTER 2 : LITERATURE REVIEW

### TREATMENT OF EXTRAORDINARY ITEMS (EOI)

### DEFINITION AND TERMINOLOGY

There is not much difference in the way various accounting bodies define EOI. However, we are going to go through definitions by various bodies so as to gain a better understanding of the term EOI. Bernstein in 1967 defined EOI to include:

(a) Non-recurring operating gains and losses.

(b) Recurring non-operating gains and losses.

(c) Non-recurring, non-operating gains and losses.5

This definition implies that anything unusual whether it relates to ordinary activities or not should be regarded as an EOI.

In 1969,the Canadian Institute of Chartered Accountants (CICA) defined EOI to include "only gains,losses and provisions for losses which, by their nature, are not typical of the normal business activities of the enterprise".6

---

5Bernstein L.A.: "Accounting for Extraordinary Gains and Loses", The Ronald Press Co., New York 1967, pp.13.

6 Mosich et al: Intermediate Accounting, 2nd Edition, McGraw Hill Ltd., Toronto 1975.

CICA also added that the items are not expected to occur regularly over a period of years and are not considered as recurring factors in any evaluation of the ordinary operations of the enterprise.

In 1973, APB opinion No. 30 defined EOI as "an event or transaction that is both unusual and infrequent". It defines these qualities as follows:

(a) Unusual nature- The underlying event or transaction should posses a high degree of abnormality and be of a type clearly unrelated to, or only incidentally related to, the ordinary and typical activities of the entity, taking into account the environment in which the entity operates.

(b) Infrequency of occurrence- The underlying event or transaction should be of a type that would not reasonably be expected to recur in the foreseeable future, taking into account the environment in which the entity operates.7

---

7 Hawkins D.F.: Corporate FInancial Reporting and Analysis , Text and Cases.3rd Edition.Irwin.Illinois 1986<pp. 417.

In 1974, SSAP 6 - 'Extraordinary Items and Prior Year Adjustments' defined EOI as those events leading to a profit or loss to the business which lie outside the ordinary scope of its activities.8

Lastly, in 1985, KAS 2 defined EOI as deriving from events outside the ordinary activities of the business. KAS 2 continues to state that EOI do not include items of abnormal size and infrequent occurrence which derive from ordinary activities of the business.

The classification of the items as EOI may depend on particular circumstances; what is extraordinary in one business will not necessarily be extraordinary in another.9

An analysis of the definitions show that all the bodies quoted agree on the following points. For an item to be an EOI, it must be from outside the ordinary activities of the entity in question and the item must have infrequency of occurrence. From here onwards, EOI will be taken to satisfy both of these requirements.

---

8 Brockington R.: Financial Accounting. Macdonald and Evans, London 1983, pp. 258.

9ICPAK, KAS 2: Extraordinary and Prior Period Items, Nairobi 1985, Section 3.4.

A detailed discussion of what constitutes unusual items and infrequent occurrence is included in the next section.

## CRITERIA FOR EXTRAORDINARY ITEMS

A lot of judgement is required to segregate in the income statement, the effects of events or transactions that are extraordinary in nature. In my opinion, any event should be presumed to be ordinary and usual activity of the reporting firm unless evidence clearly supports its classification as EOI. EOI are items that are distinguished because of their unusual nature and by their infrequency of occurrence.

## UNUSUAL NATURE

The term unusual means that the item is not common.If a company is involved in buying and selling of pigs, then all of a sudden the company, though authorised by its memorandum of association, decided to buy heavy equipment for resale then this is an unusual item. To determine whether an item is unusual one would need to consider three aspects.

The line of business is an important consideration. As we have seen above a company dealing with pigs would be making an extraordinary gain or loss by selling heavy equipment in an isolated year .

The environment in which a firm operates is an important factor. If a firm is located in a rural setting and provides housing within walking distance ofthe firm, it would be anunusual item to find a large "Transportation of employees" or "Employee lunches Account" in the income statement. Logically, one would expectthat the employees should walkhome and that they take lunch at their respective homes. However, if a similar firm is located in a largecity and the company has rented houses for employees in scattered estates, then the account mentionedabove will not be an unusual item.

The extent of government regulation is also an important consideration. For example, considering two public transport companies where one is state owned and the other one is privately owned, making a loss due to ferrying the ruling party's officials to attend an important party meeting, free of charge will be an unusual item for the private firmbut not for the state ownedfirm.

## INFREQUENCY OF OCCURRENCE

An event or transaction of a type not reasonably expected to recur in the foreseeable future is considered to occur infrequently. In my opinion, this situation is very ambiguous because "foreseeable future" is a general term.

An accountant could be 'short sighted' and hence decide to consider only five years into the future, another one could consider a ten-year period. These two accountants will classify the same item differently. The accountant is left free to determine what is 'foreseeable future'.

The past occurrence of an event or transaction for a particular entity provides evidence to assess the probability of recurrence of that type of event or transaction in the foreseeable future. However, the standards issued by accounting bodies do not specify the cut-off probability. This leaves the accountant free to decide the cut-off. By definition, EOIs occur infrequently. However, mere infrequency of occurrence of a particular event or transaction does not alone imply that its effects should be classified as extraordinary if it is not unusual.

## MATERIALITY

The effects of an extraordinary event should be disclosed separately in the income statement if it is material in relation to the income before extraordinary items or to the trend of annual earnings before EOI or is material by other appropriate criteria. This gives the accountant a lee-way in deciding what is material. No specific percentage is given.

This means that one accountant could take 10% to be material while another one considers an EOI which is 20% of net income before EOI as the cut-off. In any case, the standards in force state that the accountant could use any other criteria in determining materiality.

Items should be considered individually and not in the aggregate in determining whether an EOI is material. This implies that if a company has numerous extraordinary items which are not individually material then they will be reported as ordinary income. This is a weakness in that since the accountant is expected to use his judgement in determining what is material, one of the two accountants could classify a single item as an ordinary item while the other classifies it as an EOI.

However,the effects of a series of related transactions arising from a single specific and identifiable event or plan of action that is unusual and infrequent should be aggregated to determine materiality. This implies that one could net losses from profits earned in the event before arriving at the amount to consider for materiality. In my opinion, aggregation should be extended to all EOI before determining materiality. By so doing, we will ensure that no EOI is left out and this will reduce the accountant's choice.

## BASIC DIVERGENCES OF THOUGHT

Underlying the literature that has developed in accounting thought with regard to the treatment of EOI is the basic difference of opinion regarding the purpose of the income statement. There are two extreme schools of thought.

## ALL-INCLUSIVE INCOME STATEMENT CONCEPT

One school of thought holds that the major purpose of financial accounting is to report on the stewardship of management. Results are to be presented fairly and objectively: the ordinary with the extraordinary, all of them properly belonging to the earnings of the enterprise.10

The adherents to this theory believe that a series of income statements should constitute a complete historical summary of all items of revenue and expenses, profit or loss. The direct charge or credit of items to surplus because of their unusual nature is believed to be improper primarily because of the danger that significant items may go unnoticed or receive inadequate consideration and therefore fail to be disclosed deliberately or otherwise.

---

10Bernstein L.A.: Accounting for extraordinary gains and losses. The Ronald Press Co., New York, 1967, pp. 31.

The practice of including EOIs on the income statement and thus making them an element of net income for the current period is called all-inclusive concept of income reporting. 11

In support of this method, I am of the opinion that all material items are significant: ups and downs of net income are inherent in business: in order to draw conclusions as to the trends of earning power of a company, all pertinent facts over a period of years must be considered. There is no such thing as "normal income", provided that the activities in question are legal and authorised by the company's memorandum of association. The omission from consideration of the unusual types of transactions may result in wrong judgement.

Under this approach, the EOIs would be reflected in the amount of net income reported for the year. In my opinion, the figure for net income will be a true measure of the operations during the accounting year. It is a summary of financial transactions that took place during the year. It should be noted that most accountants support all-inclusive concept.12 The all-inclusive approach is supported on various grounds discussed below.

---

11Mosich et al: Intermediate Accounting. 2nd Edition, McGraw Hill Pyerson Ltd., Toronto 1975, pp. 93.

12 Meigs and Johnson:Accounting: The Basis for Decision Making. 2nd Edition,McGraw Hill Book Co.. New York 1967, pp. 557.

Many readers of the financial statements concentrate their attention on the figure for net income or EPS. They may not be aware that this figure does not include important gains and losses, if these items have been "buried" in the statement of retained earnings.

A management that deliberately tries to understate reported earnings can do so by labelling a variety of forms of revenue as non-operating and crediting them directly to retained earnings. Similarly, a company that wishes to exaggerate its earnings can omit various loss transactions from the income statement by charging them directly to retained earnings. We can avoid this by adopting the all-inclusive concept. Although the so-called EOI are often described as non-recurring, experience shows that such items do recur somewhere along a firm's future path. Consequently, they are part of the whole picture of earnings, and should be included in the income statement.

The annual income statements taken for the life of an enterprise should, when added together, represent total net income. This will mean that we can compare figures of different years since they are a true summary of the operations during the particular year.

The all-inclusive income statement is simple to prepare and leads to borderline cases being treated in a consistent manner by all companies. It includes all items leaving the readers to make use of their judgement to decide on which items should be omitted.13 The problem here is whether the readers have the capability to do so.

Including all itemsin the income statementprotects statement users against overlooking material extraordinary items.It means that all items are given equal attention.

To date, the FASB, SEC, APB and Kenya's PSC recommendations primarily reflect the all-inclusive point of view.

## CURRENT OPERATING PERFORMANCE CONCEPT

The opposite approach, called the current operating performance concept, holds that EOI should be charged or credited directly to retained earnings rather than being permitted to distort net income of the current period. The income statement is most useful when it furnishes a basis on which the reader can evaluate the earning power of the enterprise.

---

13 Hawkins D.F.: CorporateFinancial Reporting and Analysis. Text and Cases, 3rd Edition, Irwin, Illinois, 1986, pp. 416.

This is accomplished if the income statement is prepared so as to show the results of the 'normal', 'typical' or 'ordinary' operations of thebusiness. Thus, in order to serve as a basis for a sound appraisal of the enterprise, the income statement should exclude EOI.

In my opinion, the distinction between regular and extraordinary items can best be made by those who prepare the statements, i.e. management, and can bestbe verified by those who audit the accounts.They recognise the significance ofspecial and extraordinary items but feel that the best understanding of the facts would be obtained by the reader if items not related to the current year's operations were carried directly to the retained earnings account.

Several arguments can be cited to support this approach.

(1) Including unusual items in the current income may be so distorting as to lead to unsound judgement with respect to current earnings performance if they are material.

(2) This approach leads to an income figure that is more representative of what a company is able to earn from its usual or typical operations. This can enable comparisons of incomes for different years.

(3) Not all statement users are trained to eliminate distorting EOI included in an income figure determined using all-inclusive concept. As can be seen from above, there are few points to support this approachcompared to the all-inclusive approach. In my opinion, the all-inclusive approach gives a fairer representation of the operations of a businessfor any one year.

## DISCLOSURE

### EXTRAORDINARY ITEMS

IAS 8 requires that "Income from ordinary activities should be disclosed inthe income statement as part ofnet income. Unusual items should be included in net income; the nature and amount of each unusual item should be shown separately".14

SSAP 6 requires that "EOI should be shown separately in the profit and loss account after the results of the business's ordinary activities have been ascertained".15

---

14 Ernst & Whinney, International Accounting Standards: Synopses, Multinational Comparison and Disclosure Checklist.1986.

15Brockington R.: Financial Accounting. Macdonald & EvansLtd , London 1983. pp. 258.

KAS 2 requires that "the profit and loss account for the period should show a profit or loss after EOI reflecting all profits and losses recognized in the financial statements of the period ... each EOI should be shown separately less attributable tax in the profitand loss account for the periodafter the results derived from ordinary activities".16

As can be seen from above, the accounting standard setting bodies attempt to reach a compromise between the two extremes of reporting EOI. Including all items ordinary and extraordinary but distinguishing between the two!.

UNUSUAL OR INFREQUENTLY OCCURRING ITEMS

APB opinion No. 30 requires that a material event that is unusual in nature or occurs infrequently but not both, and therefore does not meet both criteria for classification as an EOI, should be reported as a separate component of income from continuing operations. The nature and financial effects of each event or transactionshould be disclosed on the face of the income statement or in notes.

---

16ICPAK, KAS 2: Extraordinary andPrior Period Items, Nairobi 1985, Section 3.4.

Gains or losses of a similar nature that are not individually material should be aggregated. Such items should not be reported on the face of the income statement,net of income taxes or in any manner that might imply they are EOI. Similarly, the earnings per share effects of those items should not be disclosed on the face of the income statement.

## VALUATION OF COMPANIES USING EARNINGS PER SHARE

For a long time finance theoristshave felt that there exists a relationship between earnings per share and stock prices. In 1956, Weston in his article "The stock market in perspective" gave 'the profit and dividend outlook' as one of the determinants of stock prices.17 He found out that there exists a relationship between reported earnings, declared dividends and stock prices .

A decade later, in 1965 O'Donnell investigated the relationship between stock prices and earnings. He concluded that there exists a relationship between earnings and stock prices. However, he noted that investors inthe electric utility stocks do not blindly accept reportedearnings. They make their ownestimates of business income and price securities accordingly.18

---

17Weston,J.Fred, "The stock market in perspective", Harvard Business Review. Vol 34 March-April 1956 pp. 72.

180'Donnell,John L. "Relationship Between earnings per share and stock prices in the Electric Utility Industry", Accounting Review, Vol 40 1965 pp. 141.

It follows that raising earnings per share by altering accounting procedures will not necessarily result, even in the short run, in higher stock prices.

During the same year, Staubus studied the relationship of financial variables and common stock values. He concluded that there exists a relationship between earnings and stock prices.19 He further noted that dividends and book values were not as reliable individual indicators of common stock values as earnings per share. He also concluded that current flows, which were computed by adding back depreciation, depletion and amortization expenses to earnings were more reliable than earnings per share.20 This implies that earnings before depreciation are more useful to investors than income after depreciation .

In 1967, Beston carried out a study on the relationship between income statement items and stock prices. He concluded that there exists a relationship between income statement items and stonk prices. He studied the following items; sales, net incom before extraordinary items and net income after extraordinary items. .

---

19Staubus, George J." The Association ofFinancial Accounting numbers with stockvalues", Accounting Review.Vol 40, 1965 pp.130.

20Ibid pp.130.

He found out that the relationship is strongest between sales and stock prices. The relationship between net income before extraordinary items and stock prices is moderate. He found out that the relationship between net income after extraordinary items and prices was the weakest among the relationships between income statement items and stock prices.21 He found out that earnings information is used primarily in the period it is made public .

Beaver (1968) carried out a study on the information content of annual earnings announcements. He concluded that the dramatic price reaction indicates that investors do look directly at reported earnings and do not use other variables to the exclusion of reported earnings.22 The evidence also indicated that the "news announcements" occurring prior to the earnings report do not entirely preempt the information content of reported earnings.

---

21Beston, George J. "Published Corporate Accounting Data and Stock Prices",Empirical Research in Accounting. Selected Studies.1967. pp. 50.

22Beaver, William H. "The information content of Annual Earnings Announcements",Empirical Research inAccounting. Selected Studies. 1968 pp. 85.

During the same year O'Donnell extended his 1965 study on electric utility stocks. He obtained more evidence to support the hypothesis that there exists a relationship between stock prices and earnings.23

Philips (1970) carried out research on the relationship between earnings and prices in the banking industry. He obtained evidence to support the hypothesis that there is a relationship between discounted bank stock and operating earnings per dollar of assets.24 In fact, he described the relationship as strong.

Philips also found out that the relationship between non-operating income and stock prices is weaker than the relationship between operating income and stock prices.25 Lastly, he concluded that stock prices are associated with both realised and unrealized capital gains. This suggests that financial statements at current or realizable values could be useful to investors.

---

23O'Donnell, John L. "Further observations on Reported Earnings and stock prices " Accounting Review. Vol. 43, 1968 pp. 550.

24Philips C.E. and Mayne S.L. "Income measures and bank Stock Values". Empirical Research in Accounting. 1970 pp. 188.

25Ibid pp. 188.

Patell (1981) carried out a study on the price effects of earnings announcements. He concluded that quarterly earnings reports are, on average, accompanied by increases in price variability.26

## INCOME SMOOTHING

In 1964, Gordon hypothesised that business managers can be expected to select those measurement and reporting rules which could smooth periodic income.27 Due to the fact that accountants are usually faced with alternative methods when preparing financial statements it is possible for accountants to influence reported earnings.

In fact, Chambers calculated that it is possible to measure a given firm income as any one of 30,000,000 figures all determined according to generally accepted accounting principles.28

---

26Patell J.M. and WolfsonM.A., "The ex ante and expost price effects of Quarterly Earnings Announcements reflected in Option and Stock Prices ", Journal of Accounting Research, Vol. 19, 1981 pp. 434.

27Gordon, M.J. "Postulates, Principles and Research in Accounting ", Accounting Review, 1964 pp. 261.

28Chambers, R.J., "A matter of principle", AccountingReview, Vol.41 July 1966 pp. 443.

Researchers have shown that corporate managers will use accounting alternatives to manipulate profits.29

In this context, manipulation is defined as some ability to increase or decrease reported net profit at will. One manipulating goal widely attributed to management is the desire to smooth income. Smoothing moderates year-to-year fluctuations in income by shifting earnings from peak years to less successful periods. This lowers the peaks and supports the troughs, making earnings fluctuations less volatile.30

Empirical tests which determine if income smoothing is a goal of management can be of three types:

1) The researcher can ascertain directly from management by interview, questionnaire, or observation if they have, are or will smooth income. Cooperation may be difficult to obtain.
2) The researcher may contact second parties such as CPAs, who have knowledge of the process used by management to select among accounting alternatives.31

---

29Schiff, M., "Accounting tactics and theory of the firm", Journal of Accounting Research. Vol. 4 1966 pp. 62.

30 Copland R.M., "Income Smoothing", Empirical Research in Accounting .Selected Studies. Vol. 6 1968 pp. 103.

31Ibid pp. 105

3) The researcher may examine the financial statements and/or reports to government agencies to ascertain if smoothing had occurred.32 This researcher has adopted this method.

In 1972, Barefield conducted research on smoothing and came up with the conclusion that firms select that method of accounting which smooths earnings.33

According to Beidleman (1973) income smoothing can raise the price of a security by reducing the systematic risk of that security. He states that:

> "to the degree that auto-normalization of earnings is successful and that the reduced covariance of returns with the market is recognized by investors and incorporated into their valuation processes, smoothing will have an added beneficial effects on share values".34

---

32Ibid pp. 106

33Barefield, R.M. and Comiskey. E.E., "The Smoothing Hypothesis. An Alternative Test", AccountingReview. Vol. 47 April 1972. pp. 298

34Beidleman C.R. "Income Smoothing: The role of management" Accounting Review. Vol. 48 Oct. 1973 pp. 654.

It has been shown that the focal number for users of financial statements is the earnings before extraordinary items.35 This implies that if extraordinary items could be used to smooth income before extraordinary items then it is possible for management to affect price values through use of extraordinary items.

EOI could be used to smooth income where the manager has a choice in reporting them as ordinary income or net income.36 This is especially so in borderline cases regarding any of the three aspects of EOI, non-recurrence, unusual nature and materiality.

Dascher (1970) in his study identified four variables which could be used to smooth income. These included pension costs dividends from unconsolidated subsidiaries reported by the parent at cost, EOI and research and development costs.37

---

35 Barnea, A. et al."Classificatory Smoothing of Income with Extraordinary Items", Accounting Review. Vol. 51 1976 pp. 110.

36 Dascher, P.E. and Malcom R.E.,"A note on Income Smoothing in the Chemical Industry", Journal of Accounting Research. Vol. 8 1970. pp. 254.

37Ibid pp. 254.

He regressed "income before smoothing " and reported earnings and calculated a standard deviation for each. He proceeded to calculate smoothing ratios (SR). These were computed as the standard deviations for smoothed income divided by standard deviations for "unsmoothed income". In the absence of deliberate smoothing, there is no reason to believe that we should observe more Smoothing Ratios greater than 1.0 than Smoothing Ratios less than 1.0 . He used chi-square to test the hypothesis of equality of the two. He found out that managers seek to smooth income.38

Barnea has suggested that nonrecurring items could, with bounds, be classified as ordinary or extraordinary. Thus, if management wishes to impart a smoother appearance to reported earnings before EOI it can use whatever discretion it has in the classification of nonrecurring items to achieve this objective.39

This flexibility is manifested in borderline cases. These cases include the sale of plant or a significant segment of the business the sale of an investment not acquired for resale, and the write off of goodwill due to unusual events.

---

38Ibid 255.

39Barnea, A.et al "Clasificatory Smoothing of Income with Extraordinary Items", Accounting Review, Vol. 51 1976 pp. 111.

Having gone through the theory behind the accounting for EOI, examined the disclosure requirements, discussed the association between earnings and stock prices and looked into how business managers could use EOI to smooth income, we now intend to find out whether there is evidence here in Kenya to support the theory.

# CHAPTER 3: RESEARCH DESIGN

## INTRODUCTION

The present chapter aims at achieving two broad objectives. In the first instance, the population of study is defined and the methodology used in data collection is developed. Secondly, some characteristics of the companies studied are presented, the hypotheses to be tested formally stated and the methodology used in data analysis developed.

## POPULATION

The population of interest in this study is made up of the fifty six (56) companies which were quoted on the Nairobi Stock Exchange (NSE) for most of the study period. The study period is defined as the period between 1st January, 1978 and 31st December, 1988. 31st December, 1988 was selected to ensure that the researcher obtains the relevant data for the financial year ending in 1988; this is expected to have been published sometimes in 1989.

The study is limited to publicly quoted companies because their accounts are public information. The list of the companies of interest is given below.

TABLE 1: LIST OF COMPANIES USED

| | | |
|---|---|---|
| 1 | Africa Tours and hotels Ltd | (A. Tours) |
| 2 | A.Baumann & Co. Ltd | (Bauman) |
| 3 | B.A.T. Kenya Ltd | (B.A.T.) |
| 4 | Bamburi Portland Cement Ltd | (Bamburi) |
| 5 | Brooke Bond Kenya Ltd | (B.Bond) |
| 6 | Car and General Ltd | (Car) |
| 7 | City brewery investments Ltd | (City B.) |
| 8 | Consolidated Holdings Ltd | (Cons H.) |
| 9 | C.M.C. Holdings Ltd | (C.M.C.) |
| 10 | Kenya Hotels Ltd | (K. Hotels) |
| 11 | Diamond Trust Ltd | (D.Trust) |
| 12 | Dunlop Kenya Ltd | (Dunlop) |
| 13 | Eaagads Ltd | (Eaagads) |
| 14 | E.A. Packanging Industries Ltd | (E.A.Pack) |
| 15 | E.A.Road Services Ltd | (E.A.Road) |
| 16 | Elliot's Bakeries Ltd | (Elliot's) |
| 17 | Express Kenya Ltd | (Express) |
| 18 | George Williamson K. Ltd | (George) |
| 19 | Kakuzi Ltd | (Kakuzi) |
| 20 | Kenya Oil Co. Ltd | (Kenol) |
| 21 | Kenya Power and Lighting Ltd | (Power) |
| 22 | Marshalls (E.A.) Ltd | (Marshalls) |
| 23 | Motor Mart Ltd | (Motor) |
| 24 | Nation Printers Ltd | (Nation) |
| 25 | Pan African Insurance Co. Ltd | (Pan A. ) |
| 26 | Kenya National Mills Ltd | (K.N.M.) |
| 27 | Sasini Tea and Coffee Ltd | (Sasini) |
| 28 | Sofar Investment Ltd | (Sofar) |
| 29 | Timsales Ltd | (Timsales) |
| 30 | Kulia Investments Ltd | (Kulia) |
| 31 | Unga Group Ltd | (Unga) |
| 32 | Carbacid Ltd | (carb ) |
| 33 | Credit Finance Corporation Ltd | (CFCL) |
| 34 | Chancery Investments Ltd | (Chancery) |
| 35 | E.A. Bag and Cordage Co. Ltd | (EABCL) |
| 36 | Kenya Breweries Ltd | (KBL) |
| 37 | E.A.Cables Ltd | (EACL) |
| 38 | E.A.Oxygen Ltd | (EAO) |
| 39 | E.A.Portland Cement Ltd | (EAPCL) |
| 40 | Hutchings Biemer Ltd | (Hutch) |

Table 1 Continued.

| | | |
|---|---|---|
| 41 | ICDC Investment Co. Ltd | (ICDC) |
| 42 | Kapchorua Tea Co. Ltd | (Kapcho) |
| 43 | Kenstck Ltd | (Kenstock) |
| 44 | K.C.C. Ltd | (KCC) |
| 45 | Kenya Orchads Ltd | (K Orch) |
| 46 | KPCU Ltd | (KPCU) |
| 47 | Limuru Tea Ltd | (Limuru) |
| 48 | National Industrial Credit Ltd | (NICL) |
| 49 | Ol Pejeta Ranching Ltd | (OL Pej) |
| 50 | Pearl Dry Cleaners Ltd | (Pearl) |
| 51 | Philips. Harrisons and Crosfield Ltd | (Philip) |
| 52 | Theta Group Ltd | (Theta) |
| 53 | Kenya Finance Corporation Ltd | (KFCL) |
| 54 | Kenya Commercial Bank Ltd | (KCB) |
| 55 | Jubilee Insurance Ltd | (Jubilee) |
| 56 | Barclays Bank of Kenya Ltd | (Barclays) |

It should be noted that it is only public companies that have a market share price hence this dictates that we use quoted companies only.

## DATA COLLECTION METHOD: SECONDARY DATA

Data was gathered from published annual reports of quoted companies. The researcher obtained financial summaries of the financial reports of the quoted companies for the last eleven years (1978-1988). For details that were not in the summaries the researcher visited any of the following to obtain the required data:

Africa Registrars Limited who are the secretaries to the Nairobi Stock Exchange. This office was very useful but they do not have all the required data.

Registered offices of the companies. These offices were not of great help as the officers concerned are not willing to spend a lot of time assisting researchers.

The Registrar of Companies office. The law requires all public companies to submit their annual statements to this office. Due to its public nature, this office could not supply all the required data. This meant that the researcher could not obtain data for some few years. However, the missing data is insignificant compared to the long period covered by the study to affect the conclusions. A summary of data collected is presented in Appendix 2.

Data on the following items was collected using the format shown in Table 2.

1. Stock prices (P).
2. Earnings before extraordinary items (E1).
3. Earnings after extraordinary items (E2).

Table 2: DATA COLLECTION FORM

Name of company _____

| Year | E1 | E2 | Date of issue of financial statements | Stock prices for the four weeks after issue of statements | | | |
|---|---|---|---|---|---|---|---|
| | | | | Wk1 | Wk2 | WK3 | Wk4 |
| 1978 | | | | | | | |
| 1979 | | | | | | | |
| 1980 | | | | | | | |
| 1981 | | | | | | | |
| 1982 | | | | | | | |
| 1983 | | | | | | | |
| 1984 | | | | | | | |
| 1985 | | | | | | | |
| 1986 | | | | | | | |
| 1987 | | | | | | | |
| 1988 | | | | | | | |

## TECHNIQUES OF ANALYSIS

The stock prices for one month after date of publication of the accounts were averaged out to come up with a representative stock price (P) for each year. The researcher chose a month after publication to give the stock prices enough time to respond to the reported earnings. Absolute earnings before EOI were obtained from the financial summaries or financial statements. These absolute earnings were divided by the number of shares outstanding as at 1st January, 1978 to obtain E1's.

This effectively took care of any stock splits or issues during the period of study. It enables the resultant earnings per share obtained to be comparable across the years. Absolute earnings after EOI were obtained and divided by the number of shares outstanding as at 1st January, 1978 to obtain E2's.

The researcher regressed E1 against P and calculated a coefficient of correlation for each company (C1). E2 was regressed against P and a coefficient of correlation (C2) for each company calculated. This meant that the researcher had a set of 31 C1 s and a set of 31 C2's. Coefficient of correlation measures the strength of the linear relationship.40 The researcher was concerned with comparing the absolute strengths of the relationships hence for cases of negative C1 or C2 the negative sign was ignored.

The researcher does not know the distribution of C1's or C2's. However, since the sample sizes are large (n1 = n2 = 31), we can use the central limit theorem and consider the means of C1's and C2's to be asymptotically normal.41 This enables us to use the Z-statistic to test whether there is a difference between the two sets of figures. The null hypothesis tested was: There is no difference between C1's and C2 s. Alternate hypothesis: There is a difference between C1's and C2's.

$$Ho: u1 - u2 = 0$$

$$Ha: u1 - u2 \neq 0$$

---

40Daniel andTerrell: Business Statistics,HoughtonMifflin Co. . Boston 1975 pp. 252.

41 Yamane Taro: Statistic :An introductory Analysis, 3rd Edition,Times Printers .Singapore 1973. pp. 661.

Failure to reject the null hypothesis meant that it does not matter whether you aggregate EOI or disclose them separately. The hypothesis was tested at 0.05 level of significance.

The second test involved regressing E1 against time. The researcher then calculated the standard deviation (S1). E2 was regressed against time and a standard deviation (S2) calculated. The researcher does not know the distribution of S1's or S2's. However, since the sample sizes are large (n1 = n2 = 31), we can use the central limit theorem and consider the means of S1's and S2's to be asymptotically normal.42 This enables us to use the Z-test to test whether there is a difference between the two sets of figures.

The null hypothesis tested was: There is no difference between S1's and S2's. The alternate hypothesis was: There is a difference between S1's and S2's.

Ho: $u1 - u2 = 0$

Ha: $u1 - u2 \neq 0$

Failure to reject the null hypothesis meant that there is no difference between the two sets of figures. This implies that publicly quoted companies in kenya do not use EOI to smooth incomes. The hypothesis was tested at 0.05 level of significance.

---

42 Ibid

Both regressions were carried out with the help of the STATIGRAPHICS package available on the microcomputer facilities in the Faculty of Commerce, University of Nairobi.

# CHAPTER 4: PRESENTATION AND DISCUSSION OF FINDINGS

## INTRODUCTION

The objective of this study was two fold:

1. To determine whether there is a relationship between EOI and stock prices.
2. To determine whether EOI are used to smooth income by publicly quoted companies in Kenya.

To achieve the first objective data on earnings before and after EOI were obtained, E1 and E2 respectively. E1's and E2's were regressed against stock prices. The researcher used the Z-test to find out whether there is a difference between the strengths of the two relationships: The relationship between E1 and P and the relationship between E2 and P. The results are reproduced in the next section.

Out of a Population of fifty six companies only thirty one companies reported EOI during the study period (1978-1988). Even for these thirty one companies, they on average reported EOI only three out of the eleven years that comprised the study period. Another point to consider is the fact that even during these years the amounts involved as a percentage of the earnings after EOI were small. Out of the one hundred and two cases of reporting of EOI it is only in twenty-two cases that the percentage of EOI to earnings after EOI was greater than 50%.

EOI as a percentage of earnings after EOI figures are presented in Table 3 below.

Table 3: EOI AS A PERCENTAGE OF EARNINGS AFTER EOI*

| Co. | 1978 % | '79 % | '80 % | '81 % | '82 % | '83 % | '84 % | '85 % | '86 % | '87 % | '88 % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 9 | - | - | 127 | - | - | - | - | - | - | - |
| 2 | 30 | 46 | - | - | - | - | - | - | - | - | - |
| 3 | - | - | - | 3 | 10 | 3 | 6 | 4 | 15 | 4 | - |
| 4 | 12 | 2 | 0.4 | - | - | - | - | - | - | - | - |
| 5 | 1 | - | 8 | 4 | 3 | 7 | 1 | 0.3 | 11 | - | 3 |
| 6 | - | - | 33 | - | - | - | - | - | - | - | - |
| 7 | - | - | 76 | - | 53 | 81 | 22 | 11 | - | - | 89 |
| 8 | - | - | - | - | - | 0.2 | 14 | 10 | 8 | - | - |
| 9 | - | - | - | - | 2 | 310 | 23 | 68 | 25 | 20 | - |
| 10 | 7 | - | - | - | - | - | - | - | 36 | - | - |
| 11 | 11 | - | 3 | - | - | - | - | - | - | - | - |
| 12 | - | - | - | - | - | - | - | - | - | 140 | - |
| 13 | 40 | - | - | - | - | - | - | - | - | - | - |
| 14 | - | - | - | 36 | 120 | 40 | 7 | 10 | 42 | - | 8 |
| 15 | - | 15 | - | 19 | - | - | - | - | - | - | - |
| 16 | - | - | - | - | - | - | 2 | 1 | 33 | - | - |
| 17 | - | - | - | - | - | - | - | 59 | 14 | - | 4 |
| 18 | 49 | - | - | - | - | - | - | - | - | - | - |
| 19 | - | - | - | - | - | - | - | 11 | - | - | - |
| 20 | - | 90 | - | - | - | - | - | - | 88 | - | - |
| 21 | 22 | 64 | 76 | 124 | 2 | - | - | - | - | - | - |
| 22 | - | 5 | - | 62 | 13 | - | 110 | - | - | 40 | - |
| 23 | - | - | - | - | - | 9 | - | - | 18 | - | - |
| 24 | - | - | 15 | 53 | 12 | - | - | - | - | 12 | - |
| 25 | - | - | 85 | - | - | - | - | - | - | - | - |
| 26 | - | - | 44 | - | - | - | - | - | - | - | - |
| 27 | - | 9 | 3 | - | 11 | - | - | - | - | - | - |
| 28 | - | - | - | - | - | - | 2 | 0.3 | 31 | - | - |
| 29 | 4 | 6 | 8 | - | - | - | - | - | - | - | - |
| 30 | 63 | 44 | - | 83 | 95 | - | - | - | - | - | - |
| 31 | - | - | - | - | - | - | 1 | 0.1 | 2 | - | 5 |

The results of the data analysis are given below. We start with a summary of characteristics of companies used in the study before testing the hypotheses.

* Numbers used to indicate companies are as shown in Table 1.

## DESCRIPTION OF THE VARIABLES USED IN THE STUDY

Of the fifty six companies that were quoted during the study period only thirty one companies qualified to be included in the study. These are the companies that reported EOI at least once during the study period. A list of these companies is given in Table 4.

Table 4: COMPANIES INCLUDED IN THIS STUDY

| | |
|---|---|
| 1 | A. Tours |
| 2 | Bauman |
| 3 | B.A.T. |
| 4 | Bamburi |
| 5 | B.Bond |
| 6 | Car |
| 7 | City B. |
| 8 | Cons H. |
| 9 | C.M.C. |
| 10 | K. H. L |
| 11 | D.Trust |
| 12 | Dunlop |
| 13 | Eaagads |
| 14 | E.A.P. |
| 15 | E.A.R. |
| 16 | Elliot |
| 17 | Express |
| 18 | George |
| 19 | Kakuzi |
| 20 | Kenol |
| 21 | Power |
| 22 | Marsh |
| 23 | Motor |
| 24 | Nation |
| 25 | Pan A. |
| 26 | K.N.M. |
| 27 | Sasini |
| 28 | Sotar |
| 29 | Tims |
| 30 | Kulia |
| 31 | Unga |

As can be seen Table 5 below most of these companies are locally controlled.** 65% of the companies are locally controlled. Over 70% of the companies bank with overseas controlled banks and 58% of them have subsidiaries. 32% of the companies are subsidiaries of other companies and on average the companies have been operating in Kenya for about forty five years.Over 90% of the companies are audited by international audit firms with Gill and Johnson alone auditing about 40% of the companies.(see Table 5)

Table 5: SUMMARY OF CHARACTERISTICS OF COMPANIES USED *

| CHARACTERISTIC | | %age | | %age |
|---|---|---|---|---|
| 1.CONTROL: | | | | |
| Local | | 65% | | |
| Overseas | | 35% | | |
| 2.BANKER: | | | | |
| Standard: | Controlled from overseas | 35% | ) | |
| Barclays: | Controlled from overseas | 35% | ) | 73% |
| C. B. A.; | Controlled from overseas | 3% | ) | |
| K. C. B.; | Controlled locally | | | 27% |
| 3.STATUS: | | | | |
| Co. with subsidiaries | | 58% | | |
| Co. has no subsidiaries | | 42% | | |
| Co. subsidiary of another company | | 32% | | |
| Co. not subsidiary of another company | | 68% | | |
| 4.AUDITOR: | | | | |
| Local: | Kassim Lakha | | | 7% |
| International: | Gill& Johnson | 39% | ) | |
| | Peat Marwic | 13% | ) | |
| | Price Waterhouse | 16% | ) | 93% |
| | Murdock | 3% | ) | |
| | Coopers | 19% | ) | |
| | Pannell B. Mwangi | 3% | ) | |
| 5.AVERAGE NO. OF YEARS OF OPERATION: 45 years | | | | |

* Table 5 is constructed from Table 6.

**N.B. Africa Registrars classifies companies as either foreign or locally controlled in the financial summaries.

TABLE 6: DETAILED CHARACTERISTICS OF COMPANIES USED IN THE STUDY

| | COMPANY | CONTROL | BANKER | STATUS | AUDITOR | AGE |
|---|---|---|---|---|---|---|
| 1 | A. Tours | L | K | H1,S1 | P | 43 |
| 2 | Bauman | O | S | HI,S2 | C | 64 |
| 3 | B.A.T. | O | K | H1,S2 | C | 38 |
| 4 | Bamburi | O | CBA | H1,S2 | PW | 39 |
| 5 | B.Bond | O | K | H1,S2 | C | 65 |
| 6 | Car G. | L | S | H1,S2 | G | 54 |
| 7 | City B. | - | - | H2,S2 | PM | 40 |
| 8 | Cons H. | O | S | H1,S1 | PM | 12 |
| 9 | C.M.C. | L | K | H1,S2 | C | 42 |
| 10 | K. H. L | L | B | H2,S1 | PW | 62 |
| 11 | D.Trust | L | - | H2,S2 | KL | 25 |
| 12 | Dunlop | O | S | H2,S1 | G | 20 |
| 13 | Eaagads | L | S | H2,S2 | G | 44 |
| 14 | E.A.P. | O | S | H2,S2 | PM | 31 |
| 15 | E.A.R. | L | S | H2,S2 | PW | 43 |
| 16 | Elliot | L | B | H2,S1 | G | 42 |
| 17 | Express | L | B | H2,S2 | PM | 72 |
| 18 | George | O | K | H1,S1 | G | 38 |
| 19 | Kakuzi | L | K | H1,S2 | G | 63 |
| 20 | Kenol | L | K | H2,S1 | PW | 31 |
| 21 | Power | L | S | H2,S2 | G | 68 |
| 22 | Marsh | O | K | H1,S2 | PW | 43 |
| 23 | Motor | O | S | H1,S1 | G | 64 |
| 24 | Nation | - | S | H1,S2 | C | 28 |
| 25 | Pan A. | L | B | H1,S2 | C | 44 |
| 26 | K.N.M. | L | B | H2,S1 | G | 25 |
| 27 | Sasini | L | B | H1,S2 | M | 38 |
| 28 | Sofar | L | B | H2,S1 | G | 29 |
| 29 | Tims | L | B | H1,S2 | KL | 58 |
| 30 | Kulia | L | B | H1,S2 | G | 58 |
| 31 | Unga | L | B | H1,S2 | G | 62 |

KEY TO TABLE 6

| | | | |
|---|---|---|---|
| L | Local | O | Overseas |
| K | Kenya Commercial Bank | S | Standard Bank |
| CBA | Commercial Bank of Africa | B | Barclays Bank |
| H1 | Company with subsidiaries | H2 | Company without subsidiaries |
| P | Pannel Bellhouse Mwangi | C | Coopers and Lybrand |
| PW | Price Waterhouse | G | Gill and Johnson |
| M | Murdock | PM | Peat Marwic |
| KL | Kassim Lakha | | |

S1 Company is a subsidiary of another company
S2 Company not subsidiary of another company
N.B. AGE refers to the number of years after incorporation.

The companies studied are of varying sizes ranging from Dunlop Kenya Ltd. with total assets of Shs. 5 million to Kenya Power and Lighting with total assets of Shs. 2,524 million as at 31st December 1987.(see Table 7) On average the size of the companies is about Shs. 440 million in terms of total assets. The companies studied have a favourable liquidity position with only 25% of them having a liquidity ratio of less than 1.00. On average the liquidity ratio for the companies is 1.71.(see Table 7) As can be seen from Table 7 39% of the companies were financed by equity capital. On average the companies included in this study are financed by debt capital at 11% of the total long term capital.

Table 7: SIZE,LIQUIDITY AND CAPITAL STRUCTURE OF COMPANIES(1987)

| | COMPANY | TOTAL ASSETS (Shs.million) | LIQUIDITY RATIO | DEBT/TOTAL EQUITY ( %age) |
|---|---|---|---|---|
| 1 | A. Tours | ____ | ____ | ___ |
| 2 | Bauman | 114 | 2.08 | 2% |
| 3 | B.A.T. | 1514 | 1.23 | 0% |
| 4 | Bamburi | 1453 | 1.57 | 15% |
| 5 | B.Bond | 985 | 1.25 | 0% |
| 6 | Car G. | 112 | 1.44 | 3% |
| 7 | City B. | 25 | 11.00 | 0% |
| 8 | Cons H. | 87 | 1.32 | 0% |
| 9 | C.M.C. | 331 | 1.56 | 0% |
| 10 | K. H. L | ____ | ____ | ___ |
| 11 | D.Trust | 197 | 2.61 | 0% |
| 12 | Dunlop | 5 | 0.66 | 1% |
| 13 | Eaagads | 23 | 2.58 | 0% |
| 14 | E.A.P. | 90 | 1.70 | 0% |
| 15 | E.A.R. | 31 | 0.50 | 10% |
| 16 | Elliot | 151 | 0.58 | 34% |
| 17 | Express | 25 | 0.90 | 11% |
| 18 | George | 212 | 1.66 | 0% |
| 19 | Kakuzi | 379 | 2.49 | 0% |
| 20 | Kenol | 88 | 1.00 | 8% |

Table 7 Continued

| | COMPANY | TOTAL ASSETS (Shs.million) | LIQUIDITY RATIO | DEBT/TOTAL EQUITY ( %age) |
|---|---|---|---|---|
| 21 | Power | 2524 | 1.13 | 55% |
| 22 | Marsh | 106 | 1.02 | 23% |
| 23 | Motor | 352 | 1.16 | 0% |
| 24 | Nation | 148 | 0.89 | 18% |
| 25 | Pan A. | 343 | 0.64 | 72% |
| 26 | K.N.M. | 834 | 1.38 | 1% |
| 27 | Sasini | 290 | 2.10 | 2% |
| 28 | Sofar | 211 | 0.67 | 5% |
| 29 | Tims | 87 | 1.73 | 11% |
| 30 | Kulia | | | |
| 31 | Unga | 1126 | 1.15 | 21% |
| AVERAGE | | 440 | 1.71 | 11% |

The results of the hypotheses testing are given below. The researcher will start by testing the hypothesis on the association between EOI and Stock prices followed by the test of the hypothesis on smoothing.

## THE ASSOCIATION BETWEEN EARNINGS AND EOI STOCK PRICES

As is discussed else where in this paper theory supports the existence of an association between earnings and stock prices. It has been suggested that earnings before EOI have a stronger relationship with prices than earnings after EOI.43 It was the intention of the researcher to find out whether this applies to publicly quoted companies in Kenya.

---

43 Beston, G. J.: "Published corporate accounting data and Stock Prices", Empirical Research in Accounting, SelectedStudies, 1967 pp.50.

Fifteen out of thirty one of the companies studied (48%) revealed that the absolute coefficients of correlation for E1 with P were lower than the absolute coefficients of correlation for E2 with P. Going by numbers alone one could conclude that the relationship between E1 and P is stronger than the relationship between E2 and P. A summary of absolute coefficients of correlation for the companies classified according to industries is given in Table 8.

Table 8: ABSOLUTE COEFFICIENTS OF CORRELATION FOR THE COMPANIES CLASSIFIED IN TERMS OF INDUSTRIES*

| INDUSTRY | C1 < C2 | C1 > C2 |
|---|---|---|
| Plantations | 3 | 2 |
| Motor | 3 | 3 |
| Finance and Investment | 2 | 4 |
| Printing | 1 | 2 |
| Gas, energy and allied | 1 | 1 |
| Hotels, food and beverage | 2 | 2 |
| Construction | 2 | 0 |
| Manufacturing | 1 | 1 |
| Trading | 0 | 1 |
| TOTAL | 15 | 16 |
| PERCENTAGE | 48% | 52% |

* Table 8 was constructed from Table 9.

As can be seen, the distribution of C1's and C2's is almost even across the industries. Most industries had both cases: C1 < C2 and C1 > C2. To understand these results better we proceed to test the hypothesis. A list of the coefficients of correlation used is reproduced in Table 9 below.44

---

44 These coefficients of correlation were calculated by regressing E1 against P and E2 against P.Data for earnings before EOI, earnings after EOI and data on stock prices is reproduced in Appendix 2.

Table 9: COEFFICIENTS OF CORRELATION

| | COMPANY | C1 | C2 |
|---|---|---|---|
| 1 | A. Tours | +0.229 | +0.331 |
| 2 | Bauman | +0.442 | -0.143 |
| 3 | B.A.T. | -0.422 | -0.415 |
| 4 | Bamburi | -0.377 | -0.399 |
| 5 | B.Bond | +0.609 | +0.622 |
| 6 | Car | +0.834 | +0.827 |
| 7 | City B. | +0.557 | +0.099 |
| 8 | Cons H. | +0.352 | +0.147 |
| 9 | C.M.C. | +0.310 | +0.317 |
| 10 | K. H. L | -0.637 | -0.447 |
| 11 | D.Trust | +0.934 | +0.927 |
| 12 | Dunlop | -0.587 | -0.714 |
| 13 | Eaagads | +0.411 | +0.420 |
| 14 | E.A.P. | +0.691 | +0.787 |
| 15 | E.A.R. | -0.671 | -0.651 |
| 16 | Elliot | +0.018 | -0.021 |
| 17 | Express | +0.467 | +0.725 |
| 18 | George | +0.432 | +0.469 |
| 19 | Kakuzi | +0.433 | +0.389 |
| 20 | Kenol | +0.226 | -0.455 |
| 21 | Power | -0.236 | -0.228 |
| 22 | Marsh | +0.500 | +0.412 |
| 23 | Motor | +0.670 | +0.701 |
| 24 | Nation | +0.802 | +0.778 |
| 25 | Pan A. | -0.587 | -0.539 |
| 26 | K.N.M. | +0.293 | +0.258 |
| 27 | Sasini | +0.572 | +0.565 |
| 28 | Sofar | +0.498 | +0.459 |
| 29 | Tims | +0.620 | +0.625 |
| 30 | Kulia | -0.191 | +0.886 |
| 31 | Unga | +0.322 | +0.336 |

As can be seen from Table 9 some of the coefficients of correlation are negative. This indicates that earnings are inversely related to stock prices. Finance theory suggests that the relationship between earnings and stock prices is positive. However, our interest in the current study was with the strength of the relationship between earnings and prices and not with the direction of the relationship.

For purposes of testing the hypothesis the researcher ignored the sign of the coefficients of correlation and used the absolutes. One could carry out a research on the nature of the relationship or whether there exists any relationship at all!

To test whether there is a significant difference between the two sets of absolute coefficients of correlation the following hypothesis was tested:

1. Null hypothesis: There is no difference between C1's and C2's
   or Ho: u1 -u2 = 0
   Alternate hypothesis: Ha: u1 - u2 $\neq$ 0
2. Level of significance: = 0.05.
3. Test statistic:
$$Z = \frac{c1 - c2}{\sqrt{\frac{s1}{n1} + \frac{s2}{n2}}}$$
4. Calculated Z:
$$Z = \frac{0.482 - 0.487}{\sqrt{\frac{0.0408}{31} + \frac{0.0604}{31}}}$$
$$= 0.175$$
5. Critical Z at = 0.05 is $\pm$1.645
6. Calculated Z = 0.175 is higher than the critical Z = -1.645 and lower than the critical Z = 1.645 hence we fail to reject the null hypothesis at 0.05 level of significance.

Since c1 = 0.482 < c2 = 0.487 this implies that on average the absolute coefficients of correlation for earnings before EOI are lower than the coefficients of correlation after EOI. This means that the relationships between earnings after EOI and stock prices are stronger than the relationship between earnings before EOI and stock prices. This is contrary to the literature cited earlier in the project. However, as can be seen from the statistical interpretation of the results the differences between the two sets of coefficients of correlation is not significant.

This means that the researcher is unable to conclude as to which of the two: Earnings before EOI or Earnings after EOI is more important to investors. It could be concluded that it does not matter whether EOI are reported separately or aggregated with ordinary items. The important point to note is the fact that the findings of the study indicate that the effect of earnings before EOI on prices, if any, is not significantly different from the effect of earnings after EOI on stock prices.

## USE OF EOI TO SMOOTH INCOME

It has been shown that EOI could be used to smooth income where the managers have a choice in reporting them as ordinary income or extraordinary income.45 This means that EOI could be used in order to give smoother earnings before EOI. This is particularly important because it has been demonstrated that the earnings before EOI are more important to investors than earnings after EOI. This implies that if a manager can manipulate E1 then he could affect the stock prices for his company in a desired direction.46

Eighteen out of thirty one (58%) of the companies studied showed that the standard deviations for the earnings before EOI are higher than the standard deviations for earnings after EOI. The standard deviations for the companies classified according to industries are given in Table 10 above. Plantations, motor, finance and investment, hotels, food and beverage industries had some companies with S1 < S2 and others with S1 > S2. All companies in Gas, energy and allied, manufacturing and general trading industries had S1 > S2 . All companies in construction industry had S1 < S2.

---

45 Dascher, P. E. and Malcom R. E.: "A note on Income Smoothing in the Chemical Industry." Journal of Accounting Research, Vol. 8 1970 pp. 254.

46 Barnea, A. et al : " Classificatory smoothing of income with Extraordinary Items" Accounting Review, Vol. 51, 1976pp. 110.

STANDARD DEVIATIONS FOR COMPANIES CLASSIFIED IN TERMS OF INDUSTRIES *

| INDUSTRY | S1 > S2 | S1 < S2 |
|---|---|---|
| Plantations | 1 | 4 |
| Motor | 3 | 3 |
| Finance and Investment | 4 | 2 |
| Printing | 3 | 0 |
| Gas, energy and allied | 2 | 0 |
| Hotels, food and beverage | 2 | 2 |
| Construction | 0 | 2 |
| Manufacturing | 2 | 0 |
| Trading | 1 | 0 |
| TOTAL | 18 | 13 |
| PERCENTAGE | 58% | 42% |

* Table 10 was constructed from Table 11.

EiTable 11: STANDARD DEVIATIONS FOR COMPANIES*

| | | S1 | S2 |
|---|---|---|---|
| 1 | A. Tours | 5.41 | 3.08 |
| 2 | Bauman | 0.82 | 0.63 |
| 3 | B.A.T. | 6.46 | 6.10 |
| 4 | Bamburi | 1.34 | 1.40 |
| 5 | B.Bond | 3.61 | 3.36 |
| 6 | Car | 1.35 | 1.00 |
| 7 | City B. | 0.77 | 1.80 |
| 8 | Cons H. | 0.56 | 0.46 |
| 9 | C.M.C. | 2.90 | 3.30 |
| 10 | K. H. L | 4.87 | 3.30 |
| 11 | D.Trust | 3.01 | 3.10 |
| 12 | Dunlop | 3.45 | 3.34 |
| 13 | Eaagads | 1.03 | 1.04 |
| 14 | E.A.P. | 1.54 | 1.48 |
| 15 | E.A.R. | 0.51 | 0.53 |
| 16 | Elliot | 4.33 | 4.48 |
| 17 | Express | 1.56 | 1.48 |
| 18 | George | 2.88 | 2.90 |
| 19 | Kakuzi | 2.09 | 2.10 |
| 20 | Kenol | 6.53 | 4.52 |
| 21 | Power | 7.19 | 6.99 |
| 22 | Marsh | 1.80 | 1.82 |
| 23 | Motor | 1.61 | 1.56 |
| 24 | Nation | 1.08 | 0.92 |
| 25 | Pan A. | 1.81 | 1.64 |
| 26 | K.N.M. | 1.82 | 1.89 |
| 27 | Sasini | 5.77 | 5.95 |
| 28 | Sofar | 1.52 | 1.58 |
| 29 | Tims | 5.88 | 5.96 |
| 30 | Kulia | 1.75 | 0.36 |
| 31 | Unga | 2.44 | 2.27 |

* Table 11 was constructed after regressing data in Appendix 2.

Going by numbers it means that E2's are smoother than E1's. This is contrary to the literature cited earlier in this paper. However, to gain a better understanding of these results we proceed to test the hypothesis.

To test whether there is a difference between the two sets of standard deviations the following hypothesis was tested:

1. Null hypothesis: There is no difference between S1's and S2's

   or Ho: $u1 - u2 = 0$

   Ha: $u1 - u2 \neq 0$

2. Level of significance: $= 0.05$

3. Test statistic:
$$Z = \frac{s1 - s2}{\sqrt{\frac{s1}{n1} + \frac{s2}{n2}}}$$

4. Calculated Z:
$$Z = \frac{2.85 - 2.60}{\sqrt{\frac{4.08}{31} + \frac{3.30}{31}}}$$
$$= 0.512$$

5. Critical Z at $= 0.05$ is $\pm 1.645$

6. Calculated Z = 0.512 is less than the critical Z = 1.645 and more than critical Z = -1.645. Hence we fail to reject the null hypothesis at 0.05 level of significance.

Since s1 = 2.85 > s2 = 2.60 it means that on average the standard deviations for earnings before EOI are higher than those for earnings after EOI. This implies that earnings after EOI are smoother than earnings before EOI. This is contrary to the literature cited earlier in the project. However, as can be seen from the statistical interpretation above the standard deviations before and after EOI are not significantly different. This means that the smoothness of earnings before EOI is not significantly different from the smoothness of earnings after EOI.

It could be concluded that the management of publicly quoted companies in Kenya may not be using EOI to smooth income. This is because if the management of the companies were using EOI to smooth income then we would expect the earnings before EOI to be smoother (hence lower standard deviations) than earnings after EOI.

## DISCUSSION OF RESULTS

This section is an attempt to find out the reasons behind the fact that there in no difference between the relationship between earnings before EOI and stock prices and the relationship between earnings after EOI and stock prices. The same reasons might be responsible for the fact that there is no difference between the smoothness of E1 and E2. We will also discuss the differences between companies that report EOI and companies that did not report EOI.

The results of data analysis show that there is no significant difference between the strengths of the relationship between E1 and P and the relationship between E2 and P. There are several reasons that can explain these findings. The most important is the fact that the amounts reported as EOI are very small compared with earnings after EOI. As can be seen from Table 3 above. it is only in a very few instances that we have the percentage of EOI over earnings after EOI being more than 30%. Over 66% of the amounts reported as extraordinary items were less than 30% of earnings after EOI.

However, even in the instances that the percentage was high the effect on the strength of the relationship was very small noting that on average out of the eleven years studied the companies reported EOI in only three years. This is the main reason that led to failure to reject both hypotheses. The other factors discussed below are in fact explaining this important point.

As is shown in Table 7 most of these companies are large with an average size of Shs. 440 million. This means that these are well established companies with a written policy guideline on what business transactions the managers should engage in. Noting that the managers of these companies are separate from the owners, one would expect them to follow the laid down procedures and guidelines in conducting business for the company if they are to protect their jobs. This means that instances of carrying out business that is not ordinary are reduced. This might explain the fact that these companies reported EOI in only three out of the eleven years covered by the study.

All the companies studied are quoted on the Nairobi Stock Exchange. There are strict regulations stipulating the requirements for being quoted. This exercises some control over the quoted companies. This means that the companies would end up restricting their operations to the business they know best. this is usually their ordinary business. In any case it might be beneficial to the company to maintain a consistent image. This could be achieved by conducting the same kind of business over time. This reduces instances of doing any extraordinary business.

Over 90% of the companies studied are audited by international audit firms. (see Table 13) These firms would like to be associated with companies that have a favourable image. As such they would try their level best to avoid instances where their clients report information that could be misleading. Reporting EOI could be interpreted to mean that the company is not doing very well and is therefore engaging in extraordinary business in a bid to maintain some expected level of profits. To avoid any misinterpretation the audit firm would rather have the item reported as ordinary income. This means that the companies would report EOI only when it can not be avoided. This can explain why EOI are reported very rarely.

The companies that reported EOI during the study period are larger than companies that were not included in the study. The average company included in this study had total assets of Shs.440 million compared to Shs. 260 million.(see Table 11 below) This was expected noting that the companies have been in existence more than the companies not included. The average number of years after incorporation is 45 years compared to an average of 39 years for the companies not included.

The larger the company the more complex its operations are and the higher the likelihood of carrying out business that might not be normal to the company. However, as is explained earlier in the project the strict rules and regulations of how business should be conducted limits the amounts involved to very small amounts.

58% of the companies included in the study had subsidiaries compared with only 16% for the companies not included. This means that the companies prepares group accounts to incorporate the accounts of all its subsidiaries. Due to the complexity involved it is not hard to visualise a situation where the company encounters a transaction which is not deemed ordinary. Therefore, this might explain the fact that on average companies with subsidiaries report EOI more often than companies without subsidiaries.

Companies included in this study had a higher liquidity ratio compared to companies not included. The liquidity ratio for companies included was on average 1.71 as compared to only 1.55 for companies not included.

This is expected noting that the companies included in this study are larger and have been in existence for a longer period. The large size means that the companies can afford to hire more knowledgeable managers. The long existence means that the companies' management have a longer experience. Long experience means that the managers are more likely to engage in riskier, other than ordinary business compared to their counterparts who do not have a lot of experience. This might be the reason behind the low incidence of reporting of EOI for the companies that have employed managers with lower experience.

An analysis of the companies shows that all the companies in Motor and Printing industries reported EOI during the study period. About 66% of the companies in Construction and Manufacturing reported EOI during the study period. 50% of the companies in Plantations industry reported EOI, while 57% of the companies reported EOI during this period. 40% of the companies in Finance and investment ,Gas, energy and allied industries reported EOI with only 25% of the companies in Trading industry reporting EOI during this period.

This analysis implies that reporting EOI is a phenomenon spread evenly across the industries.(see Table 12).[47] This means that there is no relationship between type of industry and engagement in extraordinary business.

Table 12:
COMPARISON OF THE NUMBER OF COMPANIES USED WITH THOSE NOT USED

| INDUSTRY | CO. INCLUDED IN THIS STUDY | | CO. NOT INCLUDED | |
|---|---|---|---|---|
| | Number | Sage | Number | Sage |
| Plantations | 5 | 50% | 5 | 50% |
| Motor | 6 | 100% | 0 | 00% |
| Finance and Investment | 6 | 40% | 9 | 69% |
| Printing | 3 | 100% | 0 | 00% |
| Gas, energy and allied | 2 | 40% | 3 | 60% |
| Hotels, food and beverage | 4 | 57% | 3 | 43% |
| Construction | 2 | 67% | 1 | 33% |
| Manufacturing | 2 | 66% | 1 | 34% |
| Trading | 1 | 25% | 3 | 75% |
| TOTAL | 31 | 55% | 25 | 45% |

Other aspects considered includes control, banker, capital structure and whether the company is a subsidiary of another company. As can be seen from Table 13 and Table 14 the differences in these aspects is very small.

---

47 Table 12 is constructed from Appendix 1.

TABLE 13: COMPARISON OF CHARACTERISTICS OF COMPANIES USED IN THIS STUDY WITH THOSE OF COMPANIES THAT WERE NOT USED

| CHARACTERISTIC | | COMPANIES USED %age | %age | COMPANIES NOT USED %age | %age |
|---|---|---|---|---|---|
| 1.CONTROL: | | | | | |
| Local | | 65% | | 68% | |
| Overseas | | 35% | | 32% | |
| 2.BANKER: | | | | | |
| Standard:OC | | 35% | | 31% | 69% |
| Barclays:OC | | 35% | 73% | 38% | |
| C. B. A.:OC | | 3% | | | |
| K. C. B.;LC | | | 27% | 19% | 31% |
| N. B. K.:LC | | | | 12% | |
| 3.STATUS: | | | | | |
| H1 | | 58% | | 16% | |
| H2 | | 42% | | 84% | |
| S1 | | 32% | | 28% | |
| S2 | | 68% | | 62% | |
| 4.AUDITOR: | | | | | |
| Local: | KL | | 7% | 4% | 20% |
| | K | | | 4% | |
| | N | | | 4% | |
| | M | | | 4% | |
| | Ma | | | 4% | |
| International: | G | 39% | | 40% | 80% |
| | PM | 13% | | 20% | |
| | PW | 16% | 93% | 4% | |
| | Mu | 3% | | | |
| | C | 19% | | 16% | |
| | P | 3% | | | |

5.AVERAGE NO. OF YEARS OF OPERATION: COMPANIES USED: 45 years
CO. NOT USED : 39 years

KEY TO TABLE 13

| | | | |
|---|---|---|---|
| L | Local | O | Overseas |
| KCB | Kenya Commercial Bank | S | Standard Bank |
| CBA | Commercial Bank of Africa | B | Barclays Bank |
| H1 | Company with subsidiaries | H2 | Company without subsidiaries |
| P | Pannel Bellhouse Mwangi | C | Coopers and Lybrand |
| PW | Price Waterhouse | G | Gill and Johnson |
| Mu | Murdock | PM | Peat Marwic |
| KL | Kassim Lakha | K | Kangethe |
| Ma | Martin | M | Muchekehu |
| N | Nyaga | NBK | National Bank of Kenya |

S1 Company is a subsidiary of another company
S2 Company not subsidiary of another company
OC Controlled from overseas
LC Controlled locally
N.B. AGE refers to the number of years after incorporation.

Table 14 : COMPARISON OF THE SIZE, LIQUIDITY RATIO AND DEBT/ TOTAL EQUITY RATIO FOR COMPANIES USED WITH THOSE OF COMPANIES NOT USED(1987)

| | AVERAGE TOTAL ASSETS Shs.million | LIQUIDITY RATIO | DEBT/TOTAL EQUITY RATIO (%age) |
|---|---|---|---|
| Co. used | 440 | 1.71 | 11.0 |
| Co. not used | 260 | 1.55 | 13.7 |

# CHAPTER 5: CONCLUSION

This chapter summarises the findings of the study .It also gives some recommendations. The researcher concludes the paper by highlighting limitations of the study and giving suggestions for further research.

## SUMMARY OF FINDINGS

The first objective of the study was to determine whether the relationship between earnings before EOI is stronger or weaker than earnings after EOI. The results showed that when all the companies are taken together 52% of the companies had a stronger relationship for earnings before EOI and stock prices compared to the relationships between earnings after EOI and stock prices. The average absolute coefficient of correlation for the relationship between earnings before EOI and stock prices was 0.482 compared to an average of 0.487 for the relationship between earnings after EOI and stock prices.

The results of testing the hypothesis of no difference between the two sets of coefficients of correlation showed that there is no statistical difference between the two sets of coefficients of correlation. This implies that it is not possible to conclude from the findings of the research which of the two, viz, earnings before EOI or earnings after EOI, is more important to investors.

The second objective of the study was to determine whether publicly quoted companies in Kenya use EOI to smooth income. The results of data analysis show that 58% of the companies studied had standard deviations for earnings before EOI being higher than the standard deviations for earnings after EOI. The average standard deviation for earnings before EOI was 2.85 compared to an average of 2.60 for earnings after EOI. This implies that earnings after EOI are smoother than earnings before EOI.

However, the result of hypothesis testing showed that the difference between the standard deviations before and after EOI is insignificant. This means that there is no support in Kenya for the supposition that company managements attempts to smooth reported earnings using EOI.

## RECOMMENDATIONS

The findings of this study indicated that the separation of EOI from ordinary income might not have an effect on the stock prices. This implies that, for the less sophisticated investor he/she should not spend a lot of time or effort in trying to find out the implications of reporting EOI. The figure of net income probably contains enough information for hisÑher purposes.

The findings of this study show that separation of EOI from ordinary income might not necessarily lead to better decisions especially the decision to invest. This makes it hard for somebody to justify the time, effort and money spent in coming up with KAS2. This implies that the Institute of Certified Accountants of Kenya should not spend more time or money on this subject.

The accounting staff obviously spend some time discussing how to report items that might be described as extraordinary. The findings of the study indicate that segregation of EOI might not be important. This being the case, the decision on how to report EOI should be delegated to lower level staff leaving the senior staff or directors to concentrate on making other more important decisions.

This study being the first of its kind in Kenya implies that there is a challenge to academics to pursue the questions raised in this study that remain unanswered. Of major importance is to find out why the evidence obtained is contrary to finance theory.

## LIMITATIONS OF THE STUDY

The study covered only thirty one companies; these were the companies that reported EOI during the study period. This means that we can not generalise the results to other companies that were not included in the study.

The study period was eleven years. This means that the results cannot be generalized outside the study period. The study was limited to this period (1978-1988) due to non availability of data for other years. Better results might have been obtained had the study period been longer.

As can be seen from Appendix 2 data for some years could not be obtained. It is the feeling of the researcher that the missing data might not affect the results. However, if we had managed to collect all the required data it would add to the strength of the conclusions made. If more time was available for the research, then it would have been possible to collect most of the relevant data.

## SUGGESTIONS FOR FURTHER RESEARCH

The literature that was cited in the project indicated that EOI are just one of the many items that could be used by management to smooth income. A study could be carried out to find out whether publicly quoted companies use other income statement items to smooth income.

The current study dealt with publicly quoted companies only. A study could be carried out to investigate whether companies not quoted on the Nairobi Stock Exchange attempt to smooth income.

This study could be replicated using a different method or covering a longer time period. One could obtain information by interviewing the accountants of the companies. Alternatively, information on whether income smoothing has taken place could be obtained by interviewing third parties e.g. the company's auditors. The problem with these methods is that a researcher is likely to be provided with only information that gives a favourable picture of the company.

A researcher could carry out a research to find out the reasons behind the negative relationship that exists between some companies earnings and stock prices. Research could be carried out to find out whether there exists a relationship between announcements of earnings and stock price variability.

Finally, since the current study shows that the relationship between earnings per share and stock prices is relatively weak,[48] one could carry out research to find out whether there are other variables that might have a stronger relationship with stock prices.

---

48See Table 9 above

APPENDIX 1

| COMPANIES THAT REPORTED EOI | COMPANIES THAT DID NOT REPORT EOI |
|---|---|
| **PLANTATIONS** | |
| Brooke Bond Kenya Ltd | KPCU Ltd |
| Eaagads Ltd | Limuru Tea Ltd |
| Sasini Tea and Coffee | Ol Pejeta |
| Kakuzi Ltd | Theta Group Ltd |
| George Williamson K. Ltd | Kapchorua Tea Co. Ltd |
| **MOTOR** | |
| C.M.C. Holdings | |
| Car and General | |
| E.A.Road Services Ltd | |
| Express Kenya Ltd | |
| Marshalls (E.A.) Ltd | |
| Motor Mart | |
| **FINANCE AND INVESTMENT** | |
| Kulia Investments | Barclays Bank Ltd |
| Unga Group Ltd | Chancery Investments |
| City brewery Investments | ICDC Investment Co. Ltd |
| Diamond Trust Ltd | Credit Finance Corp. Ltd |
| Sofar Investment Ltd | Jubilee Insurance Ltd |
| Pan African Insurance Co. Ltd | K.C.B. Ltd |
| | Kenstck Ltd |
| | Kenya Finance Corp. Ltd |
| | National Ind. Credit Ltd |
| **PRINTING** | |
| Consolidated Holdings Ltd | |
| E.A. Packanging Industries Ltd | |
| Nation Printers | |
| **GAS, ENERGY AND ALLIED** | |
| Kenya Oil Co. Ltd | E.A.Cables Ltd |
| | E.A.Oxygen |
| Kenya Power and Lighting Ltd | Carbacid |

APPENDIX I CONT.

| COMPANIES THAT REPORTED EOI | COMPANIES THAT DID NOT REPORT EOI |
|---|---|
| **HOTELS,FOOD AND BEVERAGES** | |
| Africa Tours and hotels | Kenya Breweries Ltd |
| Elliot's Bakeries Ltd | |
| Kenya Hotels Ltd | K.C.C. Ltd |
| | Kenya Orchads |
| Kenya National Mills | |
| **CONSTRUCTION** | |
| Bamburi Portland Cement Ltd | E.A.Portland Cement Ltd |
| Timsales Ltd | |
| **MANUFACTURING** | |
| B.A.T. Kenya Ltd | E.A. Bag and Cord. Co. Ltd |
| Dunlop Kenya Ltd | |
| **TRADING** | |
| A.Bauman & Co. Ltd | Hutchings Biemer Ltd |
| | Pearl Dry Cleaners |
| | Philips, Harrisons and Cross |

| | E1 | E2 | P | E1 | E2 | P |
|---|---|---|---|---|---|---|
| 1978 | 14.8 | 12.30 | 13.0 | 1.46 | 0.84 | 8.7 |
| 1979 | 9.58 | 9.60 | 41.6 | 1.13 | 0.99 | 1.1 |
| 1980 | 7.44 | 7.44 | 32.8 | 2.17 | 2.13 | 7.3 |
| 1981 | 9.12 | 8.85 | 35.6 | 4.71 | 4.73 | 6.9 |
| 1982 | 12.5 | 11.20 | 38.3 | ---- | ---- | -- |
| 1983 | 14.7 | 15.10 | 31.5 | 2.24 | 2.24 | 3.0 |
| 1984 | 14.0 | 13.00 | 34.7 | --- | --- | -- |
| 1985 | 18.4 | 17.80 | 36.0 | --- | --- | -- |
| 1986 | 24.1 | 19.80 | 34.0 | 0.60 | 0.60 | 3.3 |
| 1987 | 3.00 | 25.00 | 25.9 | 35.00 | --- | -- |
| 1988 | --- | --- | --- | --- | --- | -- |

APPENDIX 2

DATA ON EARNINGS PER SHARE BEFORE E.O.I.(E1), EARNINGS PER SHARE AFTER E.O.I.(E2) AND STOCK PRICES (P).

A. TOURS

| | E1 | E2 | P |
|---|---|---|---|
| 1978 | 14.8 | 12.3 | 13.0 |
| 1979 | 6.8 | 6.8 | 13.9 |
| 1980 | ---- | ---- | ---- |
| 1981 | 13.8 | 13.8 | 10.2 |
| 1982 | 0.00 | 0.07 | 10.2 |
| 1983 | --- | --- | -- |
| 1984 | --- | --- | --- |
| 1985 | --- | --- | --- |
| 1986 | 6.70 | 6.70 | 2.10 |
| 1987 | --- | --- | --- |
| 1988 | --- | --- | --- |

BAUMAN

| | E1 | E2 | P |
|---|---|---|---|
| | 1.46 | 0.84 | 8.70 |
| | 2.63 | 0.39 | 7.40 |
| | 1.01 | 1.01 | 6.50 |
| | 0.30 | 0.30 | 4.50 |
| | 0.21 | 0.21 | 2.90 |
| | 2.38 | 2.38 | 3.00 |
| | 0.34 | 0.34 | 3.70 |
| | 1.05 | 1.05 | 5.00 |
| | 0.38 | 0.81 | 3.60 |
| | 0.84 | 0.84 | 3.00 |
| | --- | --- | --- |

B. A. T

BAMBURI

APPENDIX 2 CONT.

DATA ON EARNINGS PER SHARE BEFORE E.O.I.(E1), EARNINGS PER SHARE AFTER E.O.I.(E2) AND STOCK PRICES (P).

| | CAR G. | | | CITY B. | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | 3.89 | 3.89 | 10.40 | --- | --- | --- |
| 1979 | 3.12 | 3.12 | 8.20 | --- | --- | --- |
| 1980 | 5.66 | 3.77 | 10.8 | 0.19 | 0.05 | 3.20 |
| 1981 | 2.29 | 2.29 | 5.80 | --- | --- | --- |
| 1982 | 2.51 | 2.51 | 3.50 | 0.50 | 0.50 | 3.50 |
| 1983 | 2.09 | 2.09 | 4.50 | --- | --- | --- |
| 1984 | 2.13 | 2.13 | 4.20 | 0.59 | 0.28 | 3.80 |
| 1985 | 0.87 | 0.87 | 4.20 | 2.38 | 0.45 | 4.50 |
| 1986 | --- | --- | --- | 0.95 | 0.73 | 4.40 |
| 1987 | 1.81 | 1.81 | 7.00 | 0.90 | 0.80 | 5.20 |
| 1988 | 3.81 | 3.82 | 10.00 | 0.57 | 5.07 | 4.00 |

| | CONS H. | | | KENYA H. L. | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | 1.45 | 1.47 | 5.5 | 0.90 | 0.83 | 9.00 |
| 1979 | 0.61 | 0.63 | 4.7 | 1.90 | 1.90 | 8.50 |
| 1980 | 0.92 | 0.92 | 3.3 | 1.98 | 1.98 | 12.00 |
| 1981 | --- | --- | --- | --- | --- | -- |
| 1982 | 0.00 | 0.19 | 1.9 | --- | --- | -- |
| 1983 | 0.00 | 1.11 | 1.9 | 2.29 | 2.29 | 10.00 |
| 1984 | 1.45 | 1.45 | 2.2 | 6.19 | 9.19 | 10.00 |
| 1985 | 0.36 | 0.31 | 2.5 | 7.46 | 7.46 | 10.50 |
| 1986 | 0.87 | 0.96 | 3.4 | 14.60 | 9.27 | 6.00 |
| 1987 | 0.35 | 0.38 | 4.2 | --- | --- | --- |
| 1988 | 0.00 | 0.49 | 4.0 | --- | --- | --- |

| | EAAGADS | | | E. A.PACK | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | 0.20 | 0.10 | 1.3 | 1.60 | 1.60 | 12.0 |
| 1979 | 0.54 | 0.54 | 1.3 | 0.85 | 0.85 | 9.9 |
| 1980 | 0.89 | 0.89 | 2.2 | 0.31 | 0.31 | 6.5 |
| 1981 | 0.61 | 0.61 | 2.6 | 1.98 | 1.26 | 4.5 |
| 1982 | 0.92 | 0.92 | 1.5 | 0.79 | 1.75 | 3.1 |
| 1983 | --- | --- | --- | 1.99 | 1.16 | 3.3 |
| 1984 | 1.36 | 1.36 | 2.0 | 1.16 | 1.48 | 6.4 |
| 1985 | 1.11 | 1.11 | 3.0 | 0.82 | 2.81 | 7.5 |
| 1986 | 3.84 | 3.84 | 3.8 | 3.86 | 2.25 | 8.8 |
| 1987 | 0.44 | 0.44 | 4.1 | --- | --- | --- |
| 1988 | 0.73 | 0.73 | 3.5 | 5.31 | 5.64 | 22.0 |

APPENDIX 2 CONT.

DATA ON EARNINGS PER SHARE BEFORE E.O.I. (E1), EARNINGS PER SHARE AFTER E.O.I. (E2) AND STOCK PRICES (P).

| | D. TRUST | | | DUNLOP | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | 4.15 | 3.69 | 11.7 | 0.63 | 0.63 | 10.0 |
| 1979 | 4.89 | 4.89 | 12.8 | 0.81 | 0.81 | 11.2 |
| 1980 | 5.85 | 5.64 | 17.0 | 2.78 | 2.98 | 7.3 |
| 1981 | 6.88 | 6.88 | 13.6 | --- | --- | --- |
| 1982 | 8.05 | 8.05 | 16.7 | 3.85 | 3.85 | 8.7 |
| 1983 | 8.71 | 8.71 | 16.9 | --- | --- | --- |
| 1984 | 8.90 | 8.90 | 16.6 | --- | --- | --- |
| 1985 | 10.10 | 10.10 | 18.0 | 1.90 | 4.67 | 5.8 |
| 1986 | 10.30 | 10.30 | 21.3 | 6.14 | 6.14 | 4.3 |
| 1987 | 14.30 | 14.30 | 27.0 | --- | --- | --- |
| 1988 | --- | --- | --- | 10.3 | 10.30 | 6.5 |

APPENDIX 2 CONT.

DATA ON EARNINGS PER SHARE BEFORE E.O.I.(E1), EARNINGS PER SHARE AFTER E.O.I.(E2) AND STOCK PRICES (P).

| | ELLIOTS | | | EXPRESS | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | --- | --- | --- | 1.89 | 1.89 | 5.2 |
| 1979 | 2.81 | 2.81 | 5.8 | 2.02 | 2.02 | 5.3 |
| 1980 | 4.01 | 4.01 | 7.3 | 3.00 | 3.00 | 5.0 |
| 1981 | 10.80 | 10.80 | 7.5 | 1.49 | 1.49 | 6.1 |
| 1982 | 13.30 | 13.30 | 11.0 | --- | --- | --- |
| 1983 | --- | --- | --- | --- | --- | --- |
| 1984 | 2.70 | 2.63 | 12.5 | --- | --- | --- |
| 1985 | 7.43 | 7.39 | 10.5 | 4.19 | 1.72 | 4.2 |
| 1986 | 2.89 | 1.92 | 12.0 | 5.80 | 4.99 | 6.7 |
| 1987 | --- | --- | --- | 3.57 | 3.57 | 7.5 |
| 1988 | --- | --- | --- | 5.01 | 5.21 | 15.5 |

| | GEORGE | | | KAKUZI | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | 4.45 | 2.27 | 8.9 | 3.66 | 3.66 | 19.5 |
| 1979 | 0.68 | 0.68 | 7.2 | 4.95 | 1.68 | 15.5 |
| 1980 | 1.68 | 1.68 | 7.8 | 1.57 | 1.57 | 14.8 |
| 1981 | 0.93 | 0.93 | 6.0 | 1.68 | 1.68 | 8.2 |
| 1982 | 1.16 | 1.16 | 7.0 | 1.90 | 1.90 | 11.5 |
| 1983 | 7.73 | 7.73 | 8.4 | --- | --- | --- |
| 1984 | 9.35 | 9.35 | 15.1 | 5.15 | 5.15 | 13.1 |
| 1985 | 4.54 | 4.59 | 14.0 | 7.28 | 6.51 | 14.5 |
| 1986 | 5.21 | 5.21 | 14.3 | 5.62 | 5.62 | 16.0 |
| 1987 | 2.28 | 2.28 | 14.8 | 6.91 | 6.91 | 16.8 |
| 1988 | 2.28 | 2.28 | 15.8 | 3.73 | 3.73 | 17.0 |

APPENDIX 2 CONT.

DATA ON EARNINGS PER SHARE BEFORE E.O.I.(E1). EARNINGS PER SHARE AFTER E.O.I.(E2) AND STOCK PRICES (P).

| | PAN A I Co | | | K N MILLS | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | 2.43 | 2.43 | 15.0 | 1.21 | 1.21 | 5.0 |
| 1979 | 4.14 | 4.14 | 18.2 | 1.13 | 1.13 | 4.7 |
| 1980 | 1.44 | 2.66 | 21.5 | 1.40 | 0.78 | 5.5 |
| 1981 | 3.32 | 3.32 | 23.6 | 1.04 | 1.04 | 4.5 |
| 1982 | --- | --- | --- | --- | --- | --- |
| 1983 | 1.98 | 1.98 | 14.0 | --- | --- | --- |
| 1984 | 5.08 | 5.08 | 7.5 | 3.53 | 3.53 | 3.1 |
| 1985 | 6.97 | 6.97 | 10.0 | 2.71 | 2.71 | 3.5 |
| 1986 | 4.36 | 4.36 | 16.7 | 5.76 | 5.76 | 3.6 |
| 1987 | --- | --- | --- | 5.37 | 5.37 | 10.1 |
| 1988 | --- | --- | --- | 3.07 | 3.07 | 8.5 |

| | SASINI | | | SOFAR | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | 5.53 | 5.53 | 20.0 | --- | --- | --- |
| 1979 | 5.14 | 4.65 | 15.4 | 0.94 | 0.94 | 2.5 |
| 1980 | 5.64 | 5.49 | 16.3 | 1.34 | 1.34 | 2.5 |
| 1981 | 4.63 | 4.63 | 14.9 | 3.49 | 3.49 | 2.5 |
| 1982 | 6.03 | 5.38 | 15.2 | 4.26 | 4.26 | 2.8 |
| 1983 | 7.61 | 8.34 | 14.0 | 0.97 | 0.87 | 2.5 |
| 1984 | 16.20 | 16.10 | 18.5 | 3.77 | 3.76 | 2.9 |
| 1985 | 15.50 | 15.30 | 26.6 | 0.93 | 0.63 | 2.8 |
| 1986 | 20.90 | 21.50 | 25.0 | --- | --- | --- |
| 1987 | 9.52 | 9.52 | 31.0 | --- | --- | --- |
| 1988 | --- | --- | --- | --- | --- | --- |

APPENDIX 2 CONT.

DATA ON EARNINGS PER SHARE BEFORE E.O.I. (E1), EARNINGS PER SHARE AFTER E.O.I. (E2) AND STOCK PRICES (P).

| | K POWER | | | MARSHALLS | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | 6.96 | 5.40 | 25.0 | 4.72 | 4.72 | 14.5 |
| 1979 | 4.19 | 6.89 | 24.8 | 4.38 | 4.13 | 15.5 |
| 1980 | 2.70 | 4.70 | 21.2 | 4.01 | 4.01 | 16.3 |
| 1981 | 0.70 | 0.00 | 19.0 | 1.76 | 0.66 | 12.1 |
| 1982 | 12.30 | 12.10 | 12.8 | 2.71 | 2.36 | 7.8 |
| 1983 | 22.10 | 22.10 | 14.6 | 1.71 | 1.71 | 8.3 |
| 1984 | 10.80 | 10.80 | 15.0 | 1.09 | 2.29 | 9.3 |
| 1985 | 21.80 | 21.80 | 18.0 | ___ | ___ | ___ |
| 1986 | 9.40 | 9.40 | 26.9 | ___ | ___ | ___ |
| 1987 | 17.00 | 17.00 | 25.4 | 2.18 | 3.05 | 6.5 |
| 1988 | 11.80 | 11.80 | 33.8 | 6.75 | 6.75 | 11.5 |

| | MOTOR M | | | UNGA G | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | 3.17 | 3.17 | 10.5 | 0.84 | 0.84 | 7.2 |
| 1979 | 0.85 | 0.85 | 10.0 | 1.36 | 1.36 | 7.1 |
| 1980 | 0.49 | 0.49 | 4.4 | 0.00 | 1.33 | 8.0 |
| 1981 | ___ | ___ | ___ | 2.13 | 2.13 | 8.7 |
| 1982 | 0.11 | 0.11 | 2.6 | 2.41 | 2.41 | 7.5 |
| 1983 | 3.72 | 3.38 | 2.4 | 1.75 | 1.75 | 9.1 |
| 1984 | 1.87 | 1.87 | 3.4 | 2.34 | 2.32 | 7.5 |
| 1985 | 1.72 | 1.72 | 4.9 | 4.42 | 4.41 | 7.8 |
| 1986 | 1.58 | 1.86 | 6.0 | 8.54 | 8.35 | 8.4 |
| 1987 | 3.43 | 3.43 | 10.0 | 5.73 | 5.73 | 8.7 |
| 1988 | 5.13 | 5.13 | 25.7 | 3.02 | 2.94 | 9.0 |

APPENDIX 4 CONT.

DATA ON EARNINGS PER SHARE BEFORE E.O.I.(E1), EARNINGS PER SHARE AFTER E.O.I.(E2) AND STOCK PRICES (P).

NATION P.

| | E1 | E2 | P |
|---|---|---|---|
| 1978 | 1.94 | 1.94 | 7.8 |
| 1979 | 2.77 | 2.77 | 6.5 |
| 1980 | 1.42 | 1.21 | 4.4 |
| 1981 | 0.83 | 1.27 | 3.7 |
| 1982 | 1.17 | 1.31 | 3.5 |
| 1983 | 0.77 | 0.77 | 4.7 |
| 1984 | 2.38 | 2.38 | 4.6 |
| 1985 | 2.33 | 2.33 | 6.8 |
| 1986 | 2.59 | 2.59 | 11.2 |
| 1987 | 4.34 | 3.81 | 11.0 |
| 1988 | — | — | — |

TIMSALES

| | E1 | E2 | P |
|---|---|---|---|
| 1978 | 10.40 | 9.87 | 18.8 |
| 1979 | 6.50 | 5.75 | 21.8 |
| 1980 | 9.92 | 9.92 | 19.0 |
| 1981 | 7.23 | 7.23 | 18.8 |
| 1982 | — | — | — |
| 1983 | 9.71 | 9.71 | 19.0 |
| 1984 | 11.90 | 11.90 | 19.5 |
| 1985 | 19.30 | 19.30 | 21.9 |
| 1986 | 21.20 | 21.20 | 23.8 |
| 1987 | 15.20 | 14.50 | 17.0 |
| 1988 | 22.70 | 22.70 | 52.5 |

BROOKE BOND

| | E1 | E2 | P |
|---|---|---|---|
| 1978 | 4.59 | 4.53 | 36.0 |
| 1979 | 2.81 | 2.81 | 27.2 |
| 1980 | 1.90 | 2.04 | 27.5 |
| 1981 | 1.32 | 1.36 | 20.3 |
| 1982 | 1.25 | 1.29 | 11.0 |
| 1983 | 3.61 | 3.87 | 14.5 |
| 1984 | 7.38 | 7.44 | 29.7 |
| 1985 | 10.30 | 10.50 | 34.2 |
| 1986 | 11.90 | 10.60 | 34.8 |
| 1987 | 6.64 | 6.64 | 34.5 |
| 1988 | 5.76 | 5.94 | 44.0 |

KULIA

| | E1 | E2 | P |
|---|---|---|---|
| 1978 | 1.30 | 0.47 | 5.0 |
| 1979 | 1.63 | 0.90 | 5.6 |
| 1980 | 0.81 | 0.81 | 4.9 |
| 1981 | 0.22 | 0.04 | 4.3 |
| 1982 | 4.72 | 0.26 | 4.4 |
| 1983 | — | — | — |
| 1984 | — | — | — |
| 1985 | — | — | — |
| 1986 | — | — | — |
| 1987 | — | — | — |
| 1988 | — | — | — |

APPENDIX 2 CONT.

DATA ON EARNINGS PER SHARE BEFORE E.O.I.(E1), EARNINGS PER SHARE AFTER E.O.I.(E2) AND STOCK PRICES (P).

| | C. M. C. | | | E. A. ROAD | | |
|---|---|---|---|---|---|---|
| | E1 | E2 | P | E1 | E2 | P |
| 1978 | 7.60 | 7.60 | 13.00 | 0.64 | 0.64 | 5.20 |
| 1979 | 7.89 | 7.89 | 12.30 | 0.86 | 1.00 | 4.00 |
| 1980 | 10.20 | 10.20 | 10.70 | 1.60 | 1.60 | 3.80 |
| 1981 | 9.40 | 9.40 | 8.60 | 1.44 | 1.70 | 3.40 |
| 1982 | 4.60 | 4.49 | 7.50 | ___ | ___ | ___ |
| 1983 | 0.36 | 0.00 | 6.30 | ___ | ___ | ___ |
| 1984 | 4.12 | 3.16 | 6.10 | 1.96 | 1.96 | 2.50 |
| 1985 | 4.74 | 1.50 | 8.00 | 0.88 | 0.88 | 2.80 |
| 1986 | 4.30 | 3.21 | 9.40 | ___ | ___ | ___ |
| 1987 | 6.24 | 5.01 | 18.00 | --- | --- | --- |
| 1988 | 3.27 | 3.27 | 14.50 | --- | --- | --- |

| | KENYA OIL | | |
|---|---|---|---|
| | E1 | E2 | P |
| 1978 | 1.60 | 1.60 | 5.0 |
| 1979 | 9.85 | 1.01 | 5.7 |
| 1980 | ___ | ___ | ___ |
| 1981 | ___ | ___ | ___ |
| 1982 | ___ | ___ | ___ |
| 1983 | 3.70 | 3.70 | 2.3 |
| 1984 | 7.16 | 7.16 | 2.9 |
| 1985 | 14.00 | 14.00 | 3.8 |
| 1986 | 19.90 | 2.44 | 5.4 |
| 1987 | 3.86 | 3.86 | 5.6 |
| 1988 | ___ | ___ | ___ |

## SELECTED BIBLIOGRAPHY


Barefield, R.M.&. Comiskey.E.E. : "The Smoothing Hypothesis: An alternative test" Accounting Review.April 1972 pp. 291-296.

Barnea,A.et al : "Classificatory Smoothing of Income with Extraordinary Items". Accounting Review. Vol. 51 1976 pp.110.

Beaver,W.H. : "The information content of Annual Earnings Announcements" Empirical Research in Accounting, Selected Studies, 1968 pp.67

Beidleman, C.R. : Income Smoothing: The role of management . Accounting Review, Vol. 48 18783 pp.653.

Bernstein,L.A. : Accounting for Extraordinary Gains and Losses, The Ronald Press Co., New York 1967

Beston, G.J. : "Published Corporate Accounting Data and Stock Prices", Empirical Research in Accounting, Selected Studies,1967 pp. 50

Birkette, W.P. : "Professional Ideas on Research in Accounting, 1930-49", Abacus, Vol. 8, No. 1, June 1972.

Brockington, R. : Financial Accounting, Macdonald and Evans, London 1983.

Chambers, R.J. : "Financial Information and Security Markets", Abacus.Sept. 1965.

_____ : "A matter of principle", Empirical Research in Accounting. Selected Studies, 1968 pp 103.

Copeland, R.M. : "Income Smoothing", Empirical Research in Accounting, Selected Studies, 1968 pp.103.

Dascher, P.E. & Malcom,R. E. : "A note on income smoothing in the chemical industry" Journal of Accounting Research, Vol. 8 1970 pp. 254.

Dougall, H.E. : Investment. 9th Edition, Prentice-Hall Inc., Englewood Cliffs N.J. 1920 pp. 450.

Ernst & Whinney : International Accounting Standards: Synopses Multinational Comparison and Disclosure Checklist, 1986.

Gituma, R. : Accounting for Depreciation in publicly quoted companies in Kenya, Unpublished M.B.A. Project,1989.

Gordon, M.J. : "Postulates, Principles and Research in Accounting", Accounting Review, 1964 pp. 261.

Harvey,M. & Keer,F.: Financial Accountinmg Theory and Standards, and Edition, Prentice Hall International, London 1983.

Hawkins, D.M. : "Financial Accounting, The Standards Board and Economic Development", in Solomons "The Politicization of Accounting", Journal of Accounting,Nov. 1978.

_____ : Corporate Financial Reporting and Analysis, Text and Cases, 3rd Edition, Irwin, Illinois 1986.

Hendrisksen, E.S. : Accounting Theory, 4th Edition, Richard D. Irwin Inc., 1982.

ICPAK: Kenya Accounting Standard 2. Extraordinary and Prior period Items. Nairobi 1985.

Meigs and Johnson :Accounting. The basis for Decision Making, 2nd Edition, Mcgraw Hill Book Co., New York 1975.

Mosich et al : Intermediate Accounting,2nd Edition, McGraw Hill Ltd., Toronto 1973.

Mwarania, K.A. : Financial Accounting Standards: An Analysis of the Standard Setting Process in kenya, Unpublished M.B.A. Project, 1983.

O'Donnell, J.E. : "Relationship between earnings per share and stock prices in the Electric Utility Industry", Accounting Review, Vol. 40 1965, pp. 135.

_____ : "Further Observations on reported earnings and prices", Accounting Review. Vol. 434 1968, pp. 549.

Patell, J.M. & Wolfson,M. A. : "The ex ante and ex post price effects of Quarterly Earnings Announcements Reflected in Option and Stock Prices", Journal of Accounting Research,vol.434 1968,pp 549

Philips, G.E. & Lucille, S. M. : "Income measures and Bank Stock Values" Empirical Research in Accounting, 1970 pp.178.

Staubus, G.J. : The Association of Financial Variables with Common Stock Values", Accounting Review, Vol. 40 1965, pp. 119-34

Solomons, D. : The Politicization of Accounting in Bloom and Pieter T.E., Accounting Theory, 2nd Edition, Horcourt Brace Jovanovich, San Diego 1987.

Walker, F. : "Regulation of the Accounting Profession", Australian Accountant, Vol. 51, May 1982.

Weston, J.F. : "The Stock market in perspective" Harvard Business Review, Vol. 34 March-April 1956 pp.72.

Zimmerman, J.L. & Watts, R. L. : "The Demand for and supply of Accounting Theories: The Market For Excuses" in Bloom R. and Pieter T.E., Accounting Theory, 2nd Edition, Harcourt Brace Jovanovich, San Diego 1987.

_____ : "Towards a Positive Theory of the Determinants of Accounting Standards" in Bloom R. and Pieter T. E., Accounting Theory, 2nd Edition, Harcourt Brace Jovanovich, San Diego 1987.