THE DEVELOPMENT OF FINANCIAL RATIOS IN NIGERIA - INDUSTRY AVERAGES

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"Ultimately all policies are made on the basis of judgements. There is no other way, and there never will be. The question is whether those judgements have to be made in the fog of inadequate and inaccurate data, unclear and undefined issues, and a welter of conflicting personal opinions, or whether they can be made on the basis of adequate, reliable information, relevant experience, and clearly drawn issues. In the end, analysis is but an aid to judgement....Judgement is supreme".

Alain C. Enthoven 1965.

APPROVAL SHEET

This project has been read and Approved as Meeting the Requirements of the Department of Business Administration, Faculty of Administration, Ahmadu Bello University, Zaria.

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To Hope Ufuwalal Adanchin, the epitome of my faith in the Lord.

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A B S T R A C T

Financial ratios constitute a most popular, easy, and useful analytical tool. Analysts often have pre-determined targets with which to compare the performance and judge the financial condition of an organization. In ratio analysis one of such targets is industrial averages. Noting that empirical research has proved the utility of ratios, the study has attempted to develop local industrial averages, by computing the aggregates of individual firm's ratio.

The literature review discusses extensively: financial ratios and firm failure prediction, consequently, most of the ten ratios computed are also recommended by researchers on firm failure. Traditionally, the ten ratios fall into - liquidity, profitability, valuation, leverage, and growth ratios. A five point criteria was employed in the choice of ratios:-

1. Representation - that the ratio has a high loading on the factor it represents.
2. Recommendation - that the Nigerian Stock Exchange with its wealth of knowledge of local conditions recommends it.
3. Popularity - the ratio or its inverse is recommended in financial literature.
4. Past performance - that prior studies found the ratio helpful; and
5. Interpretation - that the ratio easily indicates a certain trend in performance.

Thirty-five companies (about one third) quoted on the Nigerian Stock Exchange were examined over a five year period: 1978 - 82. With petroleum companies extracted to form a seperate group, five industrial classifications resulted.

Computed ratios indicated that sample companies recorded eratic performance with ratios rising and falling indiscriminately. The sales growth ratio indicates that sample companies experienced growth over the period. Finally, the averages agree with financial literature that what is considered optimal elsewhere does not necessarily obtain locally.

CHAPTER I

INTRODUCTION

At the turn of this century, the function of the financial manager were clerical in nature-keeping accurate records, preparing reports, managing the firms cash position, and providing the means for payment of bills. Considerable attention was paid to issues involving methods of external financial, and little to managing a firm internally. With the depresssion of the thirties, financial analysis shifted to defensiveness. With many businesses failing, and the cry for more government regulation, companies began to disclose a substantial amount of financial data. Consequently, financial analysis became more encompassing. The analyst was now able to compare different companies in terms of their financial condition and performance.

Today the functions of the financial manager permeate every facet of the firm. These functions now include; investment of funds in assets; management of

assets; allocation of capital, and obtaining the best mix of financing in relation to the overall valuation of the firm. The emphasis in financial analysis has also shifted from external consideration to internal decision making within the firm.

In keeping with this enlarged responsibility, the financial manager analyses his firm's financial condition and performance. Shutz and Shutz (1972) have defined financial analysis as "evaluation and interpretation of a firm's fiscal position and operations". Financial analysis is undertaken by a variety of people.

Management undertakes financial analysis for control purposes. Trade creditors may be interested in the liquidity position of the firm as measured by the liquidity ratios. Since such claims are short-term, a bondholder might be more interested in the cash flow ability to service debt. He may evaluate the major sources and uses of funds, and the expected future profitability of the firm.

Stockholders are primarily concerned with the present and expected future earnings and the stability of earnings over a period of time. He may evaluate the profitability of the firm, its ability to pay dividend, and remain solvent.

Government regulatory agencies analyse firms to determine rates of return achieved by firms, and the proportion of gearing.

Financial analysis involves institutional rating. It is agreed that ratios are indeed useful analytical tools. This study attempts to compute industrial averages for various industries quoted on the Nigerian Stock Exchange. We share the views of Horne (1980) who argues "Actually, the ratios needed to assess the financial condition and performance of a company are relatively few in number. To compute unneeded ratios adds both complexity and confusion to the problem". Consequently ten ratios have been chosen which in financial literature cover the traditional factors - liquidity, debts, valuation, profitability, and growth.

The study is divided into five chapters. The first chapter introduces the study and focuses on the nature and extent of the research question. The second chapter reviews previous studies on financial ratios. Chapter three explains the research method, while chapter four presents the findings and results. Finally, chapter five summarizes and concludes the study.

Financial appraisal involves the consideration of two complementary factors - qualitative and quantitative. Prudent analysis requires and indepth analysis of both factors.

Qualitative analysis involves the evaluation of the macro-economic environment in which the organization

operates, a study of its industry group, the position of the organization in the industry, and an assessment of the quality and potential of its management.

The quantitative factors consist of financial results published periodically-half yearly or annually by the organization. Derivations or transformation of items of accounting data to form meaningful relationships are called ratios.

In spite of the controversy over the usefulness of ratios, as analytical tools, ratios have continued to be employed by researchers to achieve meaningful results. Chen and Shirmerda (1981) commenting on ratios noted that:

> "Financially distressed firms can be seperated from non-failed firms in the year before the declaration of bankruptcy with an accuracy of better than 90 percent by examining financial ratios. In determining bond ratings, when financial ratios were the only variables used the resulting ratings were virtually identical with institutional rating".

1.1 NATURE OF THE STUDY

The focus of the study is on computation of industrial ratio averages, by using the aggregates of individual company averages. A second issue involves the establishment of trends, if any; for any ratio or industry. A third area being looked into is to see if relationships exist between the averages of various industries. A further factor involves ascertaining if ratios have been of use to practising financial analysts in Nigeria.

The computations were done on the basis of only the balance sheet, and profit and loss statements.

The study did not make any attempt to explain specific ratio deviations, neither was it an apppraisal of individual firm's performance.

1.2 PURPOSE OF THE STUDY

Financial analysts often have predetermined targets with which to compare their analysis. In the case of ratios, one of these targets is industrial averages. The ratios obtained from this research, it is believed, will provide a tentative guide to this group of people. Admittedly the study is not a Nigerian version of Dun and Bradstreet, Ora Robert Morris Associates novel, but it is believed that a prelimenary work providing a basis is not out of place for the development of such widely accepted averages.

The individual investors; the institutional analyst, the company financial manager, will find their analysis more meaningful if they are aware of what is obtainable elsewhere in the industry.

Furthermore, Nigerian Lecturers, Teachers, and Students, who due to the unavailability of local industrial averages often resort to American industrial averages to compare their analysis of local companies will also find this study useful.

The literature of financial management in this country is replete with chapters on ratio analysis, which discuss ratios as analytical tools; however, no analysis is made and compared with industry averages (because they are not available) as done by authors elsewhere. Such writers may find something valuable in this study.

1.3 LIMITATIONS

The simple classification of companies on the mere basis that they 'manufacture' or 'sell', without due consideration of their particular line of businesses, may result in the projection of false and misleading positions for some companies. For example, JHI Limited, consistently displayed averages different from the two commercial banks (for the simple reason that it is not a commercial bank). It can be argued however, that since government regulatory, monetary, and fiscal policies are usually directed at sectors, such gross classifications would still produce appropriate samples of companies operating under the same 'climate'.

The period 1978-82 represented a cold war period between government and the firms. The period was characterized by increasing government restrictions on importation of basic components, raw materials, services, and capital. It could be argued that the

governmental restrictions and interferenced did not allow for optimal performance, and as such ratios were not representative of normal situations. The period was also characterized by rising prices. The absence of diversity of situations may constitute a limiting factor on the findings and also render the period less attractive for conducting an empirical survey of this nature.

The period 1978-80 is the period immediately after the implementation of the 1972 Nigerian Enterprises Act and its subsequent 1977 Amendment. Most companies could be said to be in a transitional period, when new shareholders assumed ownership, and may not have performed optimally.

The computations of nearly two thousand ratios manually in a relatively short time reduces the degree of confidence that might normally be reposed in similar studies. It must be stated that effort was made to ensure that ratios computed were truely representative of the companies.

Accounting data, are subject to different interpretations, and manupulation. For example, two firms may use different methods of depreciation or inventory valuation; depending on the procedures followed, profits could be higher or lower. Similar differences may be found in the treatment of 'other charges'. Furthermore, seasonal factors are important

for some firms; this often influences the comparative ratios.

We have established the place of financial analysis in the everyday functions of the financial manager, we have also established that contrary to popular belief, empirical research has demonstrated the utility of ratios in financial analysis. We further examined the limitations of the research but concluded that the empirical surveys would still produce useful results. The next chapter reviews previous researches dealing with ratios.

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CHAPTER II

A REVIEW OF RELATED LITERATURE

2.1 AN OUTLINE OF STUDIES

Financial ratios were originally developed as short-term credit analytical devices in the late nineteenth century. Recent studies however, have demonstrated that financial ratios can be employed in evaluating the performance of an organization. Over the years researchers have repeatedly concluded that financial ratios are useful analytical, control and planning devices.

Previous studies on the predictive ability of financial ratios have dealt with:

a) The ability of financial ratios to separate failed from non-failed firms with an accuracy of better than ninety percent for the last year prior to actual declaration of failure. The works of Tamari (1966), Beaver (1966), Altman (1968), Deakin (1972), Edminster (1972), Blum (1971),

Libby (1975), and Elam (1975) are foremost in this area.

b) A second set of studies have attempted to rate the superiority of institutional bonds as undertaken by institutions like Standard and Poors, and Moody's using ratios as the major variables, as Horrigan (1966); Pogue and Soldosky (1969); West (1970) and Pinches and Mingo (1973) have shown.

c) Martin (1971), and O'Connor (1973) addressed their studies to issues that involved financial ratios as measures of risks and consequently of returns to investors (especially in common stock). Breen and Lerner (1973), on the other hand sought to establish financial ratios as measures of the Beta.

d) Other researchers include Horrigan (1965) who established that financial ratios were indeed useful for analysis; Deakin (1975) attempted to establish the empirical distribution of ratios. Lev (1969) concluded that companies indeed use industry averages as targets. Using factor analysis, Pinches, et al (1973); and Pinches, Mingo, et al (1975) classified ratios into a seven factor space based on factor loadings and correlation over a period of years.

e) More recent studies have sought to discriminate between small firms that grew to stock echange quotation. The works of Hutchinson (1979), and Osaze (1981) are foremost in this area. Some of these studies are reviewed below.

2.2 FINANCIAL RATIOS AND FIRM FAILURE PREDICTION

Previous research on the ability of financial ratios to predict corporate distress, or even failure can be divided into two. Earlier studies concentrated on the ability of individual financial ratios to predict bankruptcy. More recent studies have, however, employed multivariate analysis to predict failure or financial distress.

Winakor and Smith (1931), studied a sample of 183 firms which had experienced difficulties during the period 1923-31 and had failed. They analyzed the trend of twenty-one ratios for ten years prior to failure and observed a deterioration of the average ratio values for failed firms. They concluded that the ratio of net working capital to total assets whose decline began at the begining of the period under study and lasted throughout, was the best indicator of approaching failure. They also indicated that long term solvency ratios were good indicators of approaching destress.

Similarly, Fitzpatrick (1932) analysed thirteen ratios of twenty firms that failed during the period 1920-29 for the three to five year period prior to

failure. Studying each firm separately and validating with a matched sample of nineteen firms that did not fail, he concluded that all the ratios predicted failure to an extent, but found the ratios, net profit to networth and networth to total assets as the best predictors of failure.

Focusing on samll corporations, Charles Merwin (1942) studied 939 firms in the period 1926-36. Dividing the sample into 'continuing' (successful) and 'discontinuing' (unsuccessful) firms, he analysed the financial data for the six years prior to failure. He compared industry mean ratios of unsuccessful firm with estimated 'normal' ratios, and found three ratios: net working capital to total assets, networth to total debt, and current ratio very indicative of discontinuance up to an early period of five years prior to failure. In all cases they exhibited declining trends before discontinuance and were always below estimated normal ratios.

Relaying primarily on the statistical technique of discriminant analysis, a number of researchers used a set of ratios to predict which firms would experience difficulties, including those threatened by actual bankruptcy for the period up to five years prior to failure. These constitute the second category of studies we shall consider under bankruptcy.

Beaver (1966) employed a sample of seventy-nine large firms that failed, and validating the test with a matched sample of firms that did not fail of the same size and industry. He tested the predictive ability of thirty ratios by using discriminant analysis and compared the mean ratios of the two samples. He found that the mean ratios of failed firms was considerably lower than those of non failed firms, and deteriorated considerably as failure approached.

In another study, Beaver (1968) attempted to predict failure from changes in market prices of shares comparing four ratios: cash flow to total liabilities; net income to total assets; total debt to total assets;
with market behaviour of prices on a sample of seventy-nine failed, and a matched sample of seventy-nine non-failed firms of approximately the same asset size and industry. He discovered that the median market prices of failed firms declined considerably as failure approaches, with the worst decline occuring in the final year prior to failure. He concluded that it would appear as if investors "recognise and adjust to the new solvency position of failing firms" and the price changes of common stock act as if investors rely upon ratios as basis for their assessments, and impound ratio information into the market prices".

Altman (1968) produced a classic work on discriminant analysis and the prediction of failure. Using a sample of thirty-three large U.S. corporations, that failed, and a validating sample of similar corporations, that did not fail, he developed a discriminant function with a score such that a less than 1.81 resulted in a firm being classified as bankcrupt, and a score of above 2.99 resulted in a firm being classified as non-bankrupt, and scores between the two represented a grey area where outright classification was not possible. The Z was calculated as followed:

$Z = .012X_1 + .014X_2 + .033X_3 + .006X_4 + .099X_5$ where:

X1 = working capital to total assets.

X2 = retained earnings to total assets.

X3 = earnings before interest and taxes to total assets

X4 = market value of equity to book value of total debt

X5 = sales to total assets.

He found he could predict bankruptcy with an accuracy of 50, 72, and 95 percent for the third, second, and final year before bankruptcy respectively.

Similarly, Deakin (1972), used a paired sample of thirty-two failed and non-failed firms for the period 1964-70. Employing fourteen ratios seven of which are net income to total assets; quick assets to current liabilities; net income plus depreciation to total debt; total debt to total assets; working capital to total assets, current ratio, and current assets,

in a discriminant function he found he could predict bankruptcy sufficiently well three years before failure.

In his study employing simple correlation, factor analysis, and stepwise regression to select financial data and ratios which best correlated, with failure and non-failure as dependent variables, Daniel (1968), concluded that a discriminant function has some power in identifying failing firms. Similarly, Moyer (1977) tested Altman's discriminant function of five ratios of parameters generated for a different period 1946-65, on newly generated data (1965-75) and found that the predictive ability of the model dropped considerably. He re-estimated the model, excluding 'superflous' variables, and discovered that predictive ability increased. After comparing the Altman model with others, he concluded it did a better job at predicting.

Altman, Haldeman, and Narayan (1977) reviewed the Altman model and updated it to the period 1969-75. Using a paired sample of fifty-three failed and fifty-eight non failed firms including retailing firms; they employed factor analysis and twenty-seven variables which were reduced to seven-current ratio; the size of total assets; interest ratio; retained earnings to total assets;the stability of earnings; return on assets (net income to total assets); and equity to total assets. Incorporating this in a discriminant function, the model predicted failure with 96 and 70 percent in the

last year and fifth year prior to failure respectively.

Wilcox (1973) used paired samples of fifty failed and non failed firms over the period 1949-71. He adjusted both the cash position and cash flow of both failed and non-failed firms. Using a gambler's run model, he ranked the risk of bankruptcy of all firms in the sample for five years prior to failure.

Finally, Edminster (1972) tested the predictive ability of financial ratios on small businesses. Starting with fifteen ratios, he concluded that: quick assets to current liabilities, working capital to sales; net income plus depreciation-depletion, and amortization to current liabilities; net worth to sales, current liabilities to networth, inventory to sales, incorporated in discriminant function, predicted failure for up to three years on cummulative data analysis.

2.3 FINANCIAL RATIOS: BOND RATING AND DEFAULT

Previous research on bonds has dealt with frequency of default on debt and bank credit difficulties. The works of Hickman (1958), Atkinson and Moore (1961) are foremost in this area. Fisher (1959) postulated the risk premium on bonds was a function of default and marketability risk. A second set of studies Horrigan (1966); West (1970); Pogue and Soldosky (1969); and Pinches and Mingo (1973) attempted to predict institutional and statistical characteristics of the

bond issuing firms.

Hickman (1958), studied the outcome of bond issues during 1900-43. He concluded that the times interest earned ratio, and the net profit to sale ratios were useful predictors of defaults, whether used separately or jointly. He found that firms with higher ratios went into default less frequently than those with comparatively lower ones.

Sualiner et al (1958) studying U.S. federal lending and loan insurance for the period 1934-51, concluded that firms with very low current ratios, and net worth total debt ratios were more likely to default on loans. Furthermore, firms with deteriorating current ratios prior to borrowing defaulted about twice as often as those of firms with stable or increasing ratio.

Moore and Atkinson (1961), examined data on changes in bank credit use and financial data for the period 1955-62. They found that firms with higher current ratios, and working capital to total assets; networth to total assets; and net profits to networth ratios increased their use of credit more often than other firms.

Wojinlower (1962) in a study of the quality of bank loans, analyzed those loans that were criticized by banks in 1957 for three federal reserve districs in U.S. He showed that criticized loans involved

firms with below average current ratios, and net working capital to total assets ratios in all the industries and networth to total debt ratio was below average= in two-thirds of the cases.

Similarly, Jen (1963) analyzed the availability of bank credit to a sample of small firms and found that the net profits to total assets, and total debt to total assets ratios constituted principal determinants of credit availability.

Horrigan (1966) attempted to predict the top six bond classifications for both Moody's, and Standard and Poors. With the ratings as the dependent varable, he: regressed them against various financial ratios of sample companies. He developed a multiple regression model with the following variables: Subordination; debt; sales to networth; net operating income to sales; and successfully predicted about 58 percent of Moody's rating; and fifty-two percent of Standard and Poor's rating.

West (1970) used a multiple regression model containing four variables; the logarithms of earnings variability; period of solvency; market value of all bonds outstanding; and market value of stock to debt ratio to predict up to sixty-two percent of the actual rating of Moody's.

Another regression model with a dischotomous (0-1) dependent variable was developed by Pogue and Soldofsky

(1969), and used to predict which of two ratings (Aaa, or Baa) a bond should be classified. Limiting their analysis to investment quality bonds as rated by Moody's, they developed a model employing five variables: debt to total capital; net income to total assets; coefficient of variation to total assets; net total assets; and net income plus interest to interest. The model was successful in classifying a number of bonds.

More recently, Pinches and Mingo (1973) analyzed 180 bonds for one year, 1967. Financial data were calculated on thirty-five different variables. Using factor analysis and M-group multiple discriminant analysis, they developed a model containing six variables: subordination (which represented the legal status of bond); year of consecutive dividends (that is ability to pay cash dividends); issue size (this indicated that bond ratings and the size of bond issue are related); net income plus interest to interest (coverage ratio); five year means of long term debt to total assets (measure of capital structure); and net income to total assets. The model grouped 132 bonds with 69.7 percent success of actual bond rating by Moody's.

2.4 FINANCIAL RATIOS AND CORPORATE RISK

Generally there appears to be a considerable amount of success by previous studies aimed at

establishing a relationship between, financial ratios and company assessment of risk as the studies of Melnyk and Mathur (1972); Deakin (1972); Martin (1971); and Breen and Lerner (1973), also confirm.

Haim Falk (1975) attempted to rank industries according to the degree of risk based on particular industry characteristics as reflected in industry financial ratios. He analyzed forty-one .industries for the period 1971-72. Using five ratios: average total assets to sales; total assets to working capital; and average accounts receivables to sales; as a composite index of risk for each of the industries. He found he could group a significant number of industries based on degrees of risk as reflected in industry financial ratios.

We here considered some models that have been developed to predict good and bad loans. Orgler (1970); starting with twenty ratios that fall traditionally into liquidity, profitability, leverage, and performance classes developed a credit scoring model for commercial bank loans. He employed multi-variate regression analysis using working capital to current assets ratio as one of the six variables, and found he could predict criticized loans, with some degree of success.

In a similar study on French commercial bank loans Altman et al (1974), used discriminant analysis on forty-one financial ratios and data on 134 firms.

The authors found their model to be relatively effective in predicting loans with repayment problems (i.e. risky).

2.5 FINANCIAL RATIOS AND RAPID GROWTH FIRMS

Hutchinson (1979) believing that the profile of small firms which go public is distinctive, and that it changes over the period up to floatation, examined the financial aspect of such firms by considering such factors as liquidity, profitability, and leverage. Using a sample of thirty-three firms that obtain quotations of the London Stock Exchange between April 1968 and March 1973 (5 years), he analyzed five ratios working capital (net current assets) to total assets; earnings before interest and taxes to total assets; sales to total assets; retained profit to total assets; and equity to total debt. He found that liquidity though not stable rose before floatation, return on investment increased, asset turnover was higher for growing firms. Also growing firms had lower accumulated profits, and leverage ratios are significantly higher for slow growth firms. He concluded that growing firms are less liquid, more profitable, and less highly geared than slow growth firms.

In another work on financing rapid growth firms in Nigeria, Osaze (1981) found that ratios adeuately discriminanted between growth and non-growth firms.

2.6 FINANCIAL RATIOS IN OTHER STUDIES

One would wish to review other categories of studies too unique to fit into any of the above classification.

O'Connor (1973) studied five ratios: total liabilities to networht; working capital to sales; cash flow to number of common stocks; current liabilities to inventory; and earnings per share to price per share and found them to be poor predictors of rates of return on common stock. He concluded that ratio analysis is of low value to investors in common stock. Abdel-Khalik (1974), noted that "the regression equation and the parameters estimated were not valid for predictive purposes for three primary reasons: (1) the choice of the explanatory ratio was peculiar, (2) the issue of ratios multi-collinearity; and (3) the use of unadjusted R^2 as a measure of explanatory power" and objected the conclusions of O'Connor. O'Connor (1974) agreed and said his findings were tentative.

Deakin (1975) examined 1114 companies for .nineteen fiscal years (1955-73) and attempted to determine the statistical distributions of financial ratios. He believed that "if empirical distributions of financial ratios were known, then a distribution function could be found for the linear combinations of ratios that would be used in a classification model". He examined the empirical distribution of eleven financial ratios:

current ratio; current assets to sales; quick assets to sales; working capital to sales; cash flow to debt; net income to total assets; and total debt to total assets. He found that assumptions of normality may hold for only total debt to total assets. He assigned Chi-square values for seven of the ratios, except for current assets to total assets; working capital to total assets; total debt to total assets. He suggested distribution free probability statements for financial ratios.

Analysing the ratios acid test; current ratio; equity to total debt; sales to inventory; sales to total assets; and net income to total assets for 245 U.S. firms for the period 1947-66, Lev (1966) found that firms periodically adjust these ratios with industry average.

In a study on the effect of capitalised lease data on the predictive ability of financial ratios, Elam (1975) concluded that the "exclusion or addition of capitalized lease data from a firm's financial statements, does not significantly increase the predictive power of affected financial ratios to predict failure.

In two works of Pinches et al (1973), and Pinches, Eubank et al (1975). The authors used R factor analysis, to classify forty-eight financial ratios into a seven factor space-return on investment; capital intensiveness; inventory intensiveness;

financial leverage; receiveables intensiveness; short-term liquidity and cash position. They ascertained which ratios correlated with the factors, and their loading on the factors.

Chudson (1937); classified firms into profitable and non-profitable firms, and found two factors: short-term liquidity and long-term solvency significantly differentiate between profitable and non-profitable firms with the profitable ones showing higher ratios, except for capital turnover ratio.

Finally, Jackendoff (1962) also found financial ratios clearly and consistently distrinquished between profitable and non-profitable firms. The ratios current ratio, working capital to total asset; and networth to total debt of profitable firms were consistently higher for profitable firms.

CONCLUSION

Financial ratios have increasingly been subjected to empirical analysis in recent years. The ability of financial ratios to significantly predict bankruptcy in firms has been established to be better than 90 percent in the year before declaration of bankruptcy. The ability of financial ratios to predict institutional bond ratings has also been established in empirical surveys. Some studies examined ratios as measures for the Beta. More recently researchers have addressed their studies to the ability of ratios to discriminate

between rapid growth and non-growth firms. The succeeding chapter discusses the method employed in this research, and discusses each of the ten ratios selected and justifies the criteria for selection.

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CHAPTER III

METHODOLOGY

3.1 SAMPLE SELECTION

The companies studied were selected from the list of ninety-three companies whose shares are quoted on the Nigerian Stock Exchange. The analysis was restricted to this class of Companies because they were most accessible in terms of up-to-date financial data.

It was considered that a third of the companies would represent an adequate sample size that would allow for empirical generalizations. This was observed for most industries except for financial and petroleum industries where over half of the population was sampled. The reason being that a third of such industries would be too few to enable generalizations. (It could be safely argued that since quoted institutions represent leaders in the industries a

smaller sample would still have allowed for generalizations). Table 3.1 contains a list of the thirty-five companies classified by industry.

Stratified random sampling was employed. The four group classification by the Nigerian Stock Exchange was adjusted slightly to five, by extracting petroleum companies out of commercial class to form a separate group. Since the sample for the service group produced all construction companies, it was renamed construction industry. Where the sample did not pick market leaders, a deliberate effort was made to include at least one. For example, the original sample for the petroleum industry was adjusted to include Total Nigeria Limited. Similarly Costain (W.A.) Limited was added to the construction industry.

3.2 RATIO SELECTION

Ten ratios were computed for each of the sample companies for five financial years 1977-1982. A five point criteria was used for selecting the ratios for computations as follows:

i) Representation. The ratio has a high loading on factor it is representing as shown in table 3.2 indicating that it is truly representative, and/or correlates significantly with other ratios determined and classified by PMC, PEMC, and Chen and Shimerda studies.

ii) Recommendation. That the ratio is among the ratios recommended by the Nigerian Stock Exchange. The argument is that as the only market for securities in the economy, the market is a position to determine relevant ratios based on its experience.

iii) Population. The ratio, its inverse, or variants, is recommended in financial analysis literature textbooks, and researchers as shown in table 3.3

iv) Past Performance. The ratio or its inverse performed well in prior studies (see table 3.3). It seems plausible that if a ratio or its inverse performed well in prior researches, it has potential to perform well in other similar studies.

v) Interpretation: That the ratio must lead to a one way interpretation. That is a lower ratio must indicate either deterioration or improvement, and vice versa for a high average.

The ratios chosen fall traditionally into five factor groups - liquidity; leverage; profitability and return on investment, valuation, and growth. The succeeding sections explain these ratios, and previous researches dealing with them

TABLE 3.1: LIST OF SAMPLE COMPANIES BY INDUSTRIES

COMPANY	COMPANY
Manufacturing	Commercial
Bata Nigeria Ltd	CFAO Nigeria Ltd
Cadbury Nigeria Ltd	Incar Motor Nigeria Ltd
Foremost Dairies Ltd	Intra Motors Nig. Ltd
Hagemeyer Nigeria Ltd	John Holt Nig. Ltd
Nigerian Hoechst	NCR Nigeria Ltd
Inter. Paints (W.A) Ltd	UAC Nigeria Ltd
Livestock Feeds	UTC Nigeria Ltd
Nigerian Breweries Ltd	Stockvis Nigeria Ltd
Metal Box Nigeria Ltd	Construction:
Nigerian Ropes Ltd	Cappa and D' Alberto Ltd
Nig. Sewing Machine Ltd	Costain (W.A.) Ltd
Nig. Textiles Ltd	Roads Nigeria Ltd
Nig. Tobacco Co. Ltd	Taylor Woodrow Nig. Ltd
Van Leer Containers Ltd	Financial:
Vono Products Ltd	JHI Ltd
Thomas Wyatt Nig. Ltd	United Bank for Africa Ltd
Petroleum:	Union Bank of Nigeria Ltd
African Petroleum Co. Ltd	
Agip (Nig) Ltd	
Mobil Nigeria Ltd	
Total Nigeria Ltd	

TABLE 3.2: FACTOR LOADING FOR SEVEN RATIOS AS DETERMINED BY PMC, PEMC, AND KUNG AND SHIMERDA.

RATIO	FACTOR LOADING	FACTOR
Current Ratio	.83	Short term liquidity
Quick Ratio	.62	Short term liquidity
Working Capital / Total Assets	.85	Capital Turnover
Net Income / Sales	.90	Return on Investment
Net Income / Networth	.83	Return on Investment
Net Income / Total Assets	.83	Return on Investment
Networth / Total Assets (inverse)	.76	Financial Leverage

3.3 THE LIQUIDITY FACTOR

Three ratios were selected to represent the liquidity factor. Liquidity ratios are used to eveluate a firm ability to meet maturing short term obligations. Three ratios were selected to represent the liquidity factor they are:

i) Current Ratio

The current ratio measures the short-term solvency of the firm by indicating the extent to which short-term claims by creditors are covered by assets of about the same maturity. Current assets include cash, marketable securities, debtors, and inventories; current

liabilities consist of notes payable, accrured taxation, accounts payable, and other short-term obligations.

This ratio was employed by Tamari (1966), Beaver (1966), Altman (1968), Edminster (1972) Libby (1975), and Deakin (1972) to predict firm fialure. Table 3.3 reveals that this ratio was employed by Horrigan (1966) to predict industrial bond ratings. Table 3.2 reveals that this ratio has been determined to have .. 83 percent loading on the liquidity factor.

ii) Quick Ratio

This ratio, variously called Quick or Acid test ratio, is calculated by deducting the less liquid of the current assets-inventory and dividing by current liabilities.

Construction companies tended to lump working-in-progress with debtors, to maintain consistency only what is explicitly labelled stocks was treated as inventory. Determining what constituted stocks for the financial industry was tricky a decision was taken to leave out the quick ratio for the whole industry.

Inventories are the least liquid of the assets, and the assets on which losses in bad

TABLE 3.3

FINANCIAL RATIO POPULARITY AS SHOWN BY INCORPORATION IN PREDICTIVE STUDIES

RESEARCHERS	CR	QUICK	WC/TA	NI/S	NI/NW	NI/TA	NW/TA
FAILURE							
1966 Tamari	x					x	
1966 Beaver	x	x	x	x	x	x	
1968 Altman	x		x	x			
1972 Deakin	x	x	x			x	
1972 Edminster	x	x	x			x	
1975 Libby	x	x	x			x	
1975 Elam	x	x		x	x		
Bond Ratings							
1966 Horrigan	x	x		x	x		
1969 Pogue & Soldofsky						x	
1973 Pinches & Mingo				x	x	x	x
Market Return							
1971 Martin				x			
1973 O'Connor				x			
Others							
1973 Stevens			x	x	x	x	
1932 Fitzpatrick					x		
1935 Winakor & Smith			x				
1942 Merqin	x		x				
1945 Chudson	x		x				x
1958 Hickman							
1958 Sauliner	x						
1961 Moore & Alkinson	x		x		x		
1962 Jackendoff	x		x	x			
1962 Wojenlower	x		x				
1963 Jen						x	
Total Found Useful	11	3	9	3	5	7	1
Total Mentioned	14	6	12	7	9	8	2

CR = Current Ratio; WC/TA = Working Capital to total assets; NI/S = Net Income to Sales; NI/NW = Net Income to Networth NI/TA = Net Income to Total Assets; NW/TA = Networth to Total Assets.

debt often occur, and is least realisable in the even of liquidation. Five researchers (table 3.3), Beaver (1966), Deakin (1972), Edminster (1972), Libby (1975), and Elam (1975) employed it for predictive studies in firm failure. Horrigan (1966) employed it for bond rating prediction.

iii) Working Capital to Total Assets

This ratio reflects characteristics of liquidity and flexibility. Working Capital can be converted to cash within a short time, and is considered more liquid than other non current assets. A higher ratio is indicative of a more liquid position; it would suggest high degree of adaptability or flexibility to changing circumstances. Twelve researchers employed it in various predictive studies; Altman (1968), Beaver (1966), Deakin (1972), Edminster (1972), and Libby (1975) for predicting firm failure. Other researchers like Stevens (1973) used it to predict firm mergers. Winakor and Smith (1935) used it for various studies.

3.4 FACTOR II: RETURN ON INVESTMENT (PROFITABILITY)

Profitability ratios measure the effectiveness of management in generating adequate returns on sales and investment.

(i) Net Income to Sales

This ratio is also called profit margin on sales, it is computed by dividing net profit after taxes (before extra-ordinary item) by sales. This ratio received attention in the works of Beaver (1966), Altman (1968) on firm failure prediction. Horrigan (1966) employed it on bond ratings. Pinches and Mingo (1973) employed it for similar purposes, and Stevens (1973) used it to predict firm mergers.

(ii) Net Income to Networth

Return on networth is indicated by this relationship and measures specifically the profitability on shareholder wealth. This ratio loads 87 percent on the return on investment factor. Nine researchers mentioned this ratio in their studies while five found it helpful. Beaver (1966), and Elam (1975), used in studies on failure prediction. Horrigan (1966) and Pinches and Mingo (1973) used it to predict bond ratings. Martin (1971), and O'Connor (1973) used it as one of their ratios in analysing market returns. Three other researchers employed it in various studies.

(iii) Net Income to Total Assets

The ratio of net profit to total assets measures the return on total investment in the firm. Four researchers, Tamari (1966), Beaver (1966), Deakin (1972), and Libby (1975) employed it to predict failure. Pogue and Soldofsky (1969), and Pinches and Mingo (1973) used it to predict industrial bond ratings. The ratio loads 87 percent on the return on investment factor in the PMC study.

DEBT (LEVERAGE): FACTOR

3.5 NETWORTH TO TOTAL ASSETS

The relationship of networth to total assets measures the percentage of assets funded by shareholders. It reveals the extent to which the firm has employed other sources of finance. To get the debt percentage, one simply deducts the result of this ratio from one.

$$1 - \frac{\text{Networth}}{\text{Total Assets}} = \text{Debt}$$

This ratio reveals to what extent a firm can safely borrow more funds, Pinches and Mingo (1973), Chudson (1945) used it in their analysis it has a loading of 76 percent on the leverage factor indicating it is a good measure for this factor. Usually the higher, the safer it is for the firm to borrow more.

3.6 VALUATION FACTORS

Valuation ratios are the most comprehensive measures of performance for the firm, for they reflect the combined influence of risk and return ratios.

Price to Earnings

This ratio is interpreted in a 'the lower the better manner.' If looked at from an earnings point of view increased earnings produce lower ratios. If looked at from a price point of view, then the higher the better. Increases in prices of shares indicate the confidence the market reposes in the firm. In computing this ratio values of zero were recorded for years not reporting earnings.

3.7 GROWTH FACTOR

Growth ratios measure the effectiveness of a firm in maintaining its economic position in the general economy and in its own industry. In periods of inflation, the interpretation of growth ratios becomes difficult. Nominal growth rates often contain inflation factors and would thus tend to present a false impression of growth, when less rosy figures are recorded for real growth.

The growth rates were calculated by dividing last period figure by first period figure. For example, a company with 12 million, 16 million, and 10 million for 1979, 1980, and 1981 respectively for sales. Would have a growth rate for 1980 as $\frac{16}{12} = 1.3333$ times.

From the compound interest factor table, this figures are read to mean a 33.33 percent growth for the twelve months between 1979 and 1980.

Two ratios:

(a) Sales growth or gross earnings for commercial firms, and
(b) Net income growth were computed;

Ratios were calculated for the individual firms and then summed. This produced arithmetic means which are referred to in the study as industrial averages.

Using stratified random sampling, thirty-five companies were selected. Using criteria of representation, interpretation, and recommendation. Ten ratios are selected. Three ratios: current, acid test; and working capital to total asset ratio represented by three ratios: net income to sales; net income to net worth; and net income to total assets, while the valuation factor was represented by the price to earnings ratio. Finally, growth ratios were income and sales. With the sample and ratios selected, the next chapter discusses the findings.

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ABBREVIATIONS

PMC = Pinches, G.E.; Mingo, K.A.; and Caruthers, J.K. "The Stability of Financial Patterns in Industrial Organizations" Journal of Finance (May 1973) pp. 389-396.

PEMC = Pinches, G.E.; Eubank, A.A.; Mingo, K.A.; and Caruthers, J.K. "The Hierarchical Classification of Financial Ratios" Journal of Business Research (Oct. 1975) pp. 295-310.

CHAPTER IV

INDUSTRIAL RATIO AVERAGE: EMPIRICAL RESULTS

The results of computations for the various industries are presented in Table 4:1-10. The last rows provide yearly industrial averages. While the sixth box presents the five year average. A detailed presentation of the findings is undertaken in succeeding sections, under factor classifications. Since a detailed discussion of the factors has been undertaken under methodology, this chapter will concentrate only on the findings.

4. LIQUIDITY RATIOS

4.1 CURRENT RATIO

Computation for the ratio yielded a five year average of 1.344 times for the manufacturing industry. From Table 4:1(a), it can be ascertained that nine companies achieved similar averages. Nigerian Ropes Limited and Nigerian Sewing Machine Company Limited had the highest values for this ratio 2.33 times each. While Nigerian Textiles Limited, and Nigerian Breweries had some of the lowest averages 0.813 and .777 times respectively. Other companies - Foremost Dairies Limited, Nigerian Hoechst, Cadbury Nigeria Limited, and Bata Nigeria Limited had values above one but below the average for the industry.

TABLE 4:1a THE RESULTS OF COMPUTATIONS OF THE CURRENT RATIO

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Manufacturing						
1.	Bata Nig.	1.398	1.29	1.301	1.16	1.143	1.2584
2.	Cadbury Nig. Ltd	1.046	.963	1.061	1.002	.994	1.013
3.	Foremost Dairies	.912	1.33	1.453	1.241		1.234
4.	Hagemeyer (NigO Ltd	1.553	1.516	1.418	1.303	1.3	1.398
5.	Hoechst	.969	.986	1.012	1.01	1.26	1.047
6.	Inter. Paint (WA) Ltd	1.45	1.512	1.461	1.469	1.34	1.446
7.	Livestock Feeds	1.651	1.571	1.74	1.725	1.23	1.583
8.	Nig. Breweries Ltd	.828	.93	.942	.531	.652	.777
9.	Metal Box Nig. Ltd	1.32	.84	1.003	1.058	.885	1.021
10.	Nig. Sewing Machine	2.769	2.794	2.76	1.953	1.363	2.328
11.	Nig. Ropes Ltd	1.255	2.085	1.773	1.674	1.522	2.328
12.	Nig. Textiles Ltd	.742	.873	1.097	.833	.519	.813
13.	Nig. Tabacco Ltd	1.349	1.506	1.487	1.33		1.418
14.	Van Leer Cont.(Nig)	1.27	1.39	1.5	1.743	1.583	1.497
15.	Vono Product Ltd	1.578	1.427	1.752	1.726	1.918	1.68
16.	Thomas Wyatt Nig Ltd	1.462	1.892	1.453	1.202	.809	1.362
	T O T A L	21.53	22.905	23.212	20.96	16.518	
	AVERAGES	1.346	1.423	1.451	1.31	1.18	1.344
	Financial						
1.	JHI Ltd	.089	.078	.676	.88	.99	.543
2.	United Bank for Africa Africa Ltd	10.174	6,494	13.287	75.99	.9.37	23.063
3.	Union Bank Nig Ltd	2.001	8.543	7.302	7.916	8.839	6.92
	Total	12.264	15.115	21.258	84.786	30.528	
	AVERAGE	4.088	5.038	7.086	28.262	10.176	10.83

Table 4:1(b) is the result for the remaining industries Commercial companies average 1.347 times. Four of the companies achieved lower averages. While Intra Motors Limited NCR Limited, UAC Nigeria Limited, and UTC Nigeria Limited ranked highest with 1.44, 1.82, 1.46 and 1.52 times respectively.

Construction companies tended to have very low averages. The overall average 1.37 times appeared unrepresent tive of all. Roads Nigeria Limited, and Taylor Woodrow Nigeria Limited has 0.189, and 0.739 times respectively. While Cappa and D'Alberto had a high 2.25 times.

All companies in the Petroleum industry had scores above one. 1.3 times for Mobil Oil Limited was slightly above the industry average of 1.1 times.

TABLE 4:1(b) YIELDS FOR THE CURRENT RATIO

COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
Commercial						
1. CFAO Ltd	1.231	1.314	1.298	1.207	n.a	.1.263
2. Incar Motørs Nig Ltd	.989	1.002	1.042	1.055	1.063	1.03
3. Intra Motors Nig Ltd	1.429	1.537	1.449	1.355	1.441	1.442
4. John Holt Ltd	1.062	1.02	1.04	1.067	1.076	1.053
5. NCR Ltd	1.774	1.809	2.084	1.82	1.62	1.822
6. UAC Nig Ltd	1.4	1.52	1.508	1.429	1.422	1.456
7. UTC Nig. Ltd	1.461	1.43	1.488	1.728	1.479	1.516
8. Stockris Nig. Ltd	1.171	1.24	1.229	1.168	1.102	1.182
TOTAL	10.517	10.872	11.138	10.829	9.203	
AVERAGE	1.315	1.359	1.392	1.354	1.315	1.347
Construction						
1. Cappa & D'Alberto Ltd	2.256	2.288	2.387	2.342	1.991	2.253
2. Constain (WA) Ltd	1.07	1.228	1.324	1.41	1.311	1.269
3. Roads Nig. Ltd	.734	.766	.805	1.25	n.a.	.889
4. Taylor Woodrow Nig. Ltd	.843	.951	.726	.436	n.a.	.739
TOTAL	4.903	5.233	5.242	5.438	3.302	
AVERAGE	1.226	1.308	1.311	1.36	1.651	1.3712
Petroleum Marketing						
1. African Petroleum Ltd	1.01	1.052	.991	.994	.952	1.00
2. Agip (Nig) Ltd	.999	.994	1.017	1.004	.985	1.00
3. Mobil Oil Nig Ltd	1.191	1.274	1.36	1.217	1.402	1.287
4. Total Nigeria Ltd	1.028	.989	1.033	1.042	n.a.	1.023
TOTAL	4.228	4.309	4.391	4.257	3.339	
AVERAGE	1.057	1.077	1.1	1.064	1.113	1.082

4.2 QUICK RATIO

Manufacturing companies averaged 0.59 times. Significant variations included Nigerian Sewing Machine Limited which averaged 1.3 times; Live Feeds 0.89 times and Van Leer containers with 0.864 times. Companies with below average ratios included - Nigerian Tabacco Limited, Nigerian Textiles Limited and Bata Nigeria Limited with 0.35, 0.23, and 0.4 times respectively. At least ten of the companies averaged similar to the industry.

Commercial companies tended to have below average scores. John Holt Limited, CFAO LImited, Incar Motors Limited, UAC Limited, and Stockvis had 0.35, 0.48, 0.51, 0.52, and 0.53 times respectively against industrial average of 0.67 times.

TABLE 4:2(a) RESULTS FOR THE QUICK RATIO

COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
Manufacturing:						
1. Bata Nig. Ltd	.5261	.443	.338	.342	.347	.399
2. Cadbury Nig. Ltd	.500	.487	.509	.458	.551	.502
3. Foremost Dairies	.375	.596	.687	.539		.549
4. Hagemeyer Nig Ltd	.543	.536	.531	.336	.486	.506
5. Hoechst	.429	.58	.467	.466	.734	.335
6. Inter. Paint (WA) Ltd	.672	.778	.546	.548	.532	.615
7. Livestock Feeds	.92	.748	1.053	1.037	.707	.893
8. Nig. Breweries Ltd	.503	.721	.572	.18	.359	.467
9. Metal Box Nig. Ltd	.461	.321	.594	.545	.38	.46
10. Nig. Ropes Ltd	.476	1.2	.755	.608	.582	.724
11. Nig. Sewing Machine	1.589	1.667	1.572	.986	.768	1.316
12. Nig. Textiles Ltd	.189	.243	.265	.338	.136	.234
13. Nig. Tabacco Ltd	.414	.54	.214	.216	n.a.	.346
14. Van Leer Cont. Nig Ltd	.593	.914	.579	1.095	1.141	.864
15. Vono Products Ltd	.463	.281	.455	.401	.697	.459
16. Thomas Wyatt Nig Ltd	.374	.549	.485	.293	7.386	.417
TOTAL	9.307	10.604	9.622	8.388	7.812	
AVERAGE	.582	.663	.601	.524	.558	.583

The average of 1.13 times for the construction industry was representative of only Cappa and D'Albeto Limited. While Costain (W.A) Limited, Roads Nigeria Limited and Taylor Woodrow with 0.92, .0.63, 0.71 times respectively performed below the standard.

Petroleum companies achieved an average of 0.87 times. While Mobil Oil Limited averaged 1.1 times above the industry, other companies had considerably lower averages. Agip Nigeria Limited had lowest average 0.72 times.

TABLE 4.2(b) RESULTS FOR THE QUICK RATIO

COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
Commercial						
1. CFAO Nig Ltd	.443	.538	.467	.450		.475
2. Incar Motors Ltd	.569	.625	.486	.33	.512	.505
3. Intra Motors Nig Ltd	.821	.266	1.047	1.076	1.196	.881
4. John Holt Nig. Ltd	.302	.385	.302	.361	.386	.347
5. NCR Nig. Ltd	1.062	1.091	1.57	1.29	1.03	1.106
6. UAC Nig Ltd	.407	.572	.494	.482	.642	.52
7. UTC Nig Ltd	.869	.714	.828	1.02	.786	.845
8. Stockris Nig Ltd	.433	.578	.576	.485	.585	.532
TOTAL	4.906	4.769	5.77	5.494	5.137	
AVERAGE	.613	.6	.721	.687	.734	.671
Construction						
1. Cappa & D'Alberto Ltd	2.035	2.08	2.04	2.034	1.744	1.987
2. Costain (WA) Ltd	.618	.87	1.01	1.09	1.00	.918
3. Roads Nig Ltd	.564	.56	.57	.84	n.a	.634
4. Taylor Woodrow Nig	.813	.918	.708	.385	n.a	.706
TOTAL	4.03	4.428	4.328	4.349	2.744	
AVERAGE	1.008	1.107	1.082	1.087	1.372	1.1312
Petroleum						
1. African Pet. C. Ltd	.686	.967	.77	.782	.727	.786
2. Agip Nig Ltd	.616	.7	.808	.698	.796	.723
3. Mobil Oil Nig Ltd	.966	1.116	1.072	1.102	1.25	1.101
4. Total Nig Ltd	.865	.813	.811	.915	n.a	.851
TOTAL	3.133	3.596	2.461	3.497	2.773	
AVERAGE	.783	.899	.865	.874	.924	.869

4.3 WORKING CAPITAL TO TOTAL ASSETS

This relationship is a further test of liquidity, since working capital can be converted to cash within a relatively short period.

TABLE 4:3(a)RESULTS FOR THE RATIO WORKING CAPITAL TO TOTAL ASSET

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Manufacturing						
1	Bata Nig Ltd	.075	.073	.083	.018	.06	.622
2	Cadbury Nig Ltd	.023	(.019)	.031	.001	(.03)	.0012
3.	Foremost Dairies Ltd	(.031)	.131	.166	.113	n.a	.097
4.	Magemeyer Nig Ltd	.315	.318	.27	.187	.17	.252
5.	Hoechst	(.027)	.012	.009	.007	.164	.029
6.	Inter. Paints (WA) Ltd	.243	.208	.196	.18	.138	.193
7.	Livestock Feeds	.35	.321	.366	.337	.126	.30
8.	Nig. Breweries	(.06)	(.03)	(.o23)	(.20)	(.184)	(.101)
9.	Metal Box Nig Ltd	.151	(.073)	.002	.034	.065	.031
10.	Nig. Ropes Ltd	.16	.407	.351	.323	.286	.305
11.	Nig Sewing Machine	.594	.59	.566	.439	.157	.469
12.	Nig Textiles Ltd	(.149)	(.096)	.1155	(.029)	(.371)	(.101)
13.	Nig Tobacco Co. Ltd	.161	.155	.164	.118	n.a	.15
14.	Van Leer Const. Ltd	.194	.151	.188	.212	.206	.19
15.	Vono Products Ltd	.23	.193	.259	.279	.313	.255
16.	Thomas Wyatt Nig Ltd	.122	.23	.151	.091	.118	.142
	TOTAL	2.35	2.555	2.894	2.11	1.218	
	AVERAGE	.147	.16	.181	.132	.087	.1414

Results for the manufacturing industry averaged 14.14 percent. Eight of the sample companies averaged similarly or above. High averages include 47, 30.5, 25.5, and 25.2 percent for Nigerian Sewing Machine, Nigerian Ropes Limited. Vono Products Limited, and Hagemeyer Limited respectively. Nigerian Textiles maintained negative scores all through the study period.

TABLE 4:3(b) RESULTS FOR THE RATIO WORKING CAPITAL TO TOTAL ASSETS

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Commercial						
1.	CFAO Nig. Ltd	.169	.204	.198	.151	n.a	.181
2.	Incar Motors Nig. Ltd	(.01)	.002	.035	.286	.275	.118
3.	Intra Motors Nig. Ltd	.304	.348	.325	.264	.335	.315
4.	John Holt Nig. Ltd	.051	.015	.028	.043	.044	.036
5.	NCR Nig. Ltd	.34	.364	.46	.394	.304	.372
6.	UAC Nig. Ltd	.221	.242	.244	.226	.22	.231
7.	UTC Nig. Ltd	.269	.222	.225	.2[illegible]	.241	.25
8.	Stockris Nig Ltd	.134	.173	.165	.13	.082	.137
	TOTAL	1.488	1.57	1.68	1.787	1.501	
	AVERAGE	.185	.196	.21	.223	.215	.206
	Financial						
1.	JHI Ltd	(.22)	(.11)	(.044)	(.02)	(.002)	(.079)
2.	U.B.A. Ltd	.408	.368	.444	.52	.401	.428
3.	Union Bank Ltd	.215	.484	.411	.388	.413	.382
	TOTAL	.403	.742	.811	.888	.892	
	AVERAGE	.134	.247	.27	.296	.271	.244
	Construction						
1.	Cappa & D'Alberto Ltd	.459	.475	.47	.478	.411	.459
2.	Costain (WA) Ltd	.035	.127	.294	.178	.146	.156
3.	Roads Nig. Ltd	(.242)	(.217)	(.159)	.138	n.a	(.189)
4.	Taylor Woodrow Nig.	(.965)	(.033)	(.14)	(.25)	n.a	(.347)
	TOTAL	.713	.352	.465	.544	.557	
	AVERAGE	.178	.088	.116	.136	.279	.159
	Petroleum						
1.	African Pet. Ltd	.009	.041	(.007)	(.005)	(.036)	(.004)
2.	Aip Nig Ltd	(.001)	(.005)	.013	.003	(.011)	
3.	Mobil Oil Nig. Ltd	.136	.172	.199	.141	.204	.17
4.	Total Nig. Ltd	.0441	(.008)	.027	.034	n.a	.019
	TOTAL	.188	.2	.232	.173	.157	
	AVERAGE	.047	.05	.058	.043	.052	.05

While the commercial sector averaged 20.6 percent, John Holt Limited averaged 3.6 percent. It also consistently performed below the overall industry, averaging 51.15, 2.8, 4.3, and 4.4 percent against the industrial average 18.5, 19.6, 21, 22.3 and 21.5 percent for each year since 1978.

Above industry scores were recorded by NCR Limited and Intra Motors Limited.

Records for this relationship indicate that U.B.A. Limited with 41, 37, 44.4, 52 and 40 percent for the period 1978 - 1982 had the highest figures in the financial industry. JHI Limited on the other hand recorded negative results for this relationship.

Cappa and D'Alberto, recorded the highest relationship 45.9, 47.5, 47, 48, and 41 percent in the construction industry. It compared favourably with industrial averages 18, 19, 12, 14 and 28 for the years 1978 - 1982 respectively. Roads Nigeria Limited, and Taylor Woodrow Nigeria Limited recorded some of the lowest averages for the same relationship.

African Petroleum Limited and Agip Nigeria Limited had no working capital at all for three years. Mobil Oil Limited has the highest score 17 percent.

PROFITABILITY RATIOS

4.4 NET INCOME TO SALES

The manufacturing industry averaged 6.6 percent for this ratio. Nine of the companies averaged similarly. The lowest average was recorded by Nigerian Textiles Limited (13.4) percent. This company also recorded losses for four of the five years under study. Some of the best results included those of Nigerian Breweries 12 percent, and Nigerian Textiles 11 percent.

The industrial average of 3.5 percent for commercial companies was surpassed by NCR Limited, UTC Limited and UAC Limited with 11, 6, and 4 percent respectively. Stockvis Limited recorded one of the lowest ratios a (0.2) percent. Incar Motors Limited, and John Holt Nigeria Limited also had some of the lowest scores 1.3 and 2.1 percent respectively.

TABLE 4:4(a): THE NET INCOME TO SALES RATIO

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Manufacturing						
1.	Bata Nigeria Ltd	.02	.059	.026	(.074)	.016	.01
2.	Cadbury Nig Ltd	.06	.076	.061	.055	.049	.061
3.	Foremost Dairies	.127	.096	.08	.067	n.a	.093
4.1	Hagemeyer Nig Ltd	.04	.042	.046	.058	.051	.048
5.	Hoechst Nigerian	.016	.065	.066	.049	.046	.048
6.	Inter. Paints (WA)	.033	.017	.04	.069	.033	.039
7.	Livestock Feeds	.089	.111	.112	.074	.095	.096
8.	Nig. Breweries Ltd	.098	.114	.128	.138	.126	.121
9.	Metal Box Nig Ltd	.105	(.o16)	.074	.158	.119	.076
10.	Nigerian Ropes Ltd	.076	.035	.071	.074	.076	.067
11.	Nig. Sewing Machine	.108	.08	.021	.05	.03	.058
12.	Nig. Textiles Ltd	(.06)	(.001)	.047	(.263)	(.3)	(.134)
13.	Nig. Tabacco Ltd	.116	.16	.087	.76	n.a	.11
14.	Van Leer Const. Ltd	.078	.072	.11	.122	.083	.093
15.	Vono Products Ltd	.074	.01	.001	.033	.021	.028
16.	Thomas Wyatt Nig Ltd	.097	.047	.079	.051	.04	.063
	TOTAL	1.017	.968	.954	.737	.487	
	AVERAGE	.064	.061	.06	.046	.035	.053

Returns on gross earnings averaged 24 percent for financial institutions. JHI Limited led with a 41.7 percent. U.B.A. Limited ranked second with 16 percent, while Union Bank Limited with 13 percent had the lowest value of this relationship.

The construction industry achieved 5 percent result over the period. This was representatives of Cappa and D'Alberto Limited which registered above

average figures for each of the years, on the other hand, Taylor Woodrow Limited recorded 2.3, 2, 2, and 3.3 percent for the years 1978-1981 against 5, 5, 3.5, 5.4, for the industry.

TABLE 4:4(b) THE NET INCOME TO SALES RATIO

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Commercial						
1.	CFAO Ltd	.026	.016	.019	.024	n.a	.021
2.	Incar Motors Nig Ltd	.013	.016	.014	.014	.001	.013
3.	Intra Motors Nig Ltd	.01	.043	.04	.035	.026	.031
4.	John Holt Nig. Ltd	.007	(.025)	.031	.034	.031	.016
5.	NCR Nig Ltd	.137	.109	.112	.103	.081	.109
6.	UAC Nig. Ltd	.054	.038	.039	.043	.032	.041
7.	UTC Nig. Ltd	.064	.051	.045	.058	.057	.055
8.	Stockvis Nig Ltd	.039	.008	.0291	.002	(.089)	(.01)
	TOTAL	.355	.256	.329	.313	.139	
	AVERAGE	.044	.032	.041	.039	.02	.035
	Financial						
1.	JHI Ltd	.441	.51	.439	.35	.344	.417
2.	U.B.A. Ltd	.232	.168	.161	.129	.115	.161
3.	Union Bank of Nig Ltd	.089	.132	.15	.148	.115	.127
4.							
	TOTAL	.763	.81	.75	.627	.574	
	AVERAGE	.254	.27	.25	.209	.191	.235
	Construction						
1.	Cappa & D'Alberto Ltd	.113	.1	.006	.055	.056	.066
2.	Costain (WA) Ltd	.042	.035	.076	.076	.075	.061
3.	Roads Nigeria Ltd	.025	.045	.037	.05	n.a	.04
4.	Taylor Woodrow Nig Ltd		.023	.02	.021	.033	.024
	TOTAL	.203	.2	.14	.214	.131	
	AVERAGE	.051	.05	.035	.054	.066	.0512
	Petroleum						
1.	African Pet. Ltd	.073	.065	.065	.07	.055	.066
2.	Agip Nig. Ltd	.047	.053	.053	.056	.047	.051
3.	Mobil Oil (Nig) Ltd	.087	.081	.057	.056	.063	.069
4.	Total Nig. Ltd	.048	.065	.0587	.064		.047
	TOTAL	.255	.264	.234	.246	.165	
	AVERAGE	.064	.066	.059	.062	.055	.0612

Mobil Oil Limited and African Petroleum Limited with 7 percent each perform slightly above the industry. Agip Limited consistently achieved lower averages to the

industry average, while African Petroleum Limited recorded above industry averages 7.3, 7, 7, 7, and 6 percent for the period 1978-1982 against 6.4, 7, 6, 6, and 6 percent for the industry.

4.5 NET INCOME TO NETWORTH

The 15 percent five year average for the manufacturing industry was surpassed by many companies three of them are Nigeria Breweries Limited, Nigerian Hoechst, and Cadbury Limited with 24 percent each. The highest return on shareholder wealth went to Livestock Feeds which has 32 percent. Nigeria Hoechst recorded the highest return for any individual year 40 percent in 1979. Nigerian Textiles Limited had a negative score for this relationship throughout the period under review.

TABLE 4:5(a) RETURN ON EQUITY RATIO

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Manufacturing						
1.	Bata Nigeria Ltd	.066	.215	.104	(.31)	.064	.028
2.	Cadbury Nig. Ltd	.224	.319	.271	.194	.185	.239
3.	Foremost Dairies	.311	.173	.176	.151	n.a	.203
4.	Hagemeyer (Nig) Ltd	.194	.139	.173	.217	.151	.175
5.	Hoechst Nigeria	.132	.401	.26	.204	.201	.24
6.	Inter. Paints (WA) Ltd	.091	.03	.083	.16	.071	.087
7.	Livestock Feeds	.309	.394	.321	.224	.342	.318
8.	Metal Box Nig Ltd	.105	(.044)	.25	.265	.323	.18
9.	Nig. Breweries	.207	.253	.239	.249	.262	.242
10.	Nigerian Ropes Ltd	.196	.061	.156	.175	.153	.148
11.	Nigerian Sew. Mach.	.266	.144	.045	.165	.088	.142
12.	Nig. Textiles Ltd	(.12)	.0003	(.11)	(.16)	(.236)	(.125)
13.	Nig. Tabacco Ltd	.215	.158	.086	.077	n.a	.134
14.	Van Leer Const. Ltd	.113	.095	.185	.167	.111	.134
15.	Vono Products Ltd	.136	.01	.015	.056	.034	.05
16.	Thomas Wyatt Nig Ltd	.267	.098	.156	.127	.091	.148
	TOTAL	2.712	2.445	2.41	1.96	1.84	
	AVERAGE	.17	.153	.151	.123	.131	.146

The commercial industry achieved an average 10.13 percent. Three companies, Stockvis Limited, John Holt Limited, and Incar Motors with 3, 10, 11 percent were among the companies with the poorest results. Intra Motors recorded 18.4 percent. Stockvis had comparatively lower averages for the last four years.

TABLE 4:5(b) RETURN ON EQUITY RATIO

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Commercial						
1.	CFAO Ltd	.197	.101	.123	.204	n.a	.156
2.	Incar Motors Nig Ltd	.188	.117	.100	.123	.006	.107
3.	Intra Motors Nig Ltd	.063	.153	.197	.241	.267	.184
4.	John Holt Nig Ltd	.075	(.181)	0.19	.231	.166	.097
5.	NCR Nigeria Ltd	.186	.137	.16	.169	.11	.152
6.	UAC Nigeria Ltd	.183	.098	.114	.145	.099	.128
7.	UTC Nigeria Ltd	.282	.187	.144	.246	.242	.22
8.	Stockvis Nig Ltd	.207	.023	.087	.007	(.48)	(.031)
	TOTAL	1.38	.635	1.115	1.366	.41	
	AVERAGE	.173	.079	.14	.171	.06	.128
	Financial						
1.	JHI Ltd	.07	.038	.049	.05	.055	.052
2.	U.B.A. Ltd	.337	.271	.258	.241	.186	.259
3.	Union Bank Nig Ltd	.148	.201	.255	.284	.252	.228
	TOTAL	.555	.51	.562	.575	.493	
	AVERAGE	.185	.17	.187	.192	.164	.18
	Construction						
1.	Cappa & D'Alberto	.216	.218	.01	.094	.135	.135
2.	Costain (W.A) Ltd	.094	.067	.08	.124	.126	.098
3.	Roads Nigeria Ltd	.404	.368	.206	.247	n.a	.306
4.	Taylor Woodrow Nig Ltd	.12	.077	.071	.241	n.a	.127
	TOTAL	.824	.73	.367	.706	.261	
	AVERAGE	.209	.183	.092	.177	.131	.1584
	Petroleum						
1.	African Petr. Ltd	.587	.475	.504	.467	.379	.482
2.	Agip Nig Ltd	.416	.507	.476	.495	.366	.452
3.	Mobil Oil Nig Ltd	.327	.291	.215	.175	.192	.24
4.	Total Nigeria Ltd	.415	574	.494	.527	n.a	.503
	TOTAL	1.745	1.847	1.691	1.662	.937	
	AVERAGE	.436	.462	.423	.416	.312	.41

U.B.A. Limited had the showing 26 percent for the financial sector while the industry achieved 18 percent. Lowest recordings went to JHI Limited 5.2 percent. JHI Limited consistently achieved the lowest results for this relationship 7, 4, 5, 5, and 6 percent for each year since 1978.

Construction companies averaged 16 percent for this ratio, Road Nigeria alone achieved this target with 31 percent. Cappa and D'Alberto Nigeria Limited recorded the poorest average for any individual year one percent for 1980. Costain (W.A) Limited averaged 9.8 percent, and comparatively achieved poor results over the years.

The Petroleum industry averaged 41 percent. Mobil Oil Nigeria Limited was the only company with a lower average 24 percent. Mobil Oil Limited also performed below average for all the years 33, 29, 22, 18 and 10 percent against the industry average 46, 42, 42, 42, and 31 percent respectively, for the period 1978-82.

4.6 NET INCOME TO TOTAL ASSETS

This ratio measures total company profitability (return on investment).

Manufacturing companies yielded 6 percent average over the period. Nine of the companies achieved similar results. Nigerian Textiles Limited made the

poorest showing over the period (4.6), 0.01, (4),(17), (17) percent for each year since 1978. While Livestock Feeds Limited recorded one of the best results 14, 16.4, 16, 11.4, and 15 percent for the years 1978-82 achieving also the highest individual ratio 17 percent for the year 1979. Low scores went to Vono Products Limited, Bata Nigeria Limited, and Nigerian Hoechst with 3, 1.2, and 4 percent respectively.

TABLE 4:6(a) YIELDS FOR THE NET INCOME TO TOTAL ASSETS RATIO

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Manufacturing						
1.	Bata Nigeria Ltd	.029	.081	.04	(.1124)	.023	.012
2.	Cadbury Nig Ltd	.085	.124	.087	.073	.065	.087
3.	Foremost Dairies	0.08	.096	.108	.08	n.a	.091
4.	Hagemeyer Nig Ltd	.074	.059	.062	.082	.065	.068
5.	Hoechst	.011	.06	.058	.042	.034	.041
6.	Inter Paints (WA) Ltd	.041	.018	.048	.078	.036	.044
7.	Livestock Feeds	.135	.164	.155	.114	.145	.143
8.	Nig. Breweries Ltd	.12	.131	.134	.143	.124	.131
9.	Metal Box Nig. Ltd	.041	(.015)	.094	.194	.114	.086
10.	Nigeria Ropes Ltd	.073	.032	.075	.091	.069	.068
11.	Nig. Sew. Mach. Ltd	.141	.086	.025	.066	.028	.069
12.	Nigerian Textiles	(.046)	(.0001)	(.04)	(.169)	(.168)	(.085)
13.	Nigeria Tobacco Ltd	.115	.109	.057	.047	n.a	.082
14.	Van Leer Cont. Ltd	.064	.065	.103	.113	.068	.081
15.	Vono Products Ltd	.082	.006	.01	.033	.021	.03
16.	Thomas Wyatt Nig Ltd	.092	.043	.073	.052	.055	.063
	TOTAL	1.134	1.049	1.089	.927	.679	
	AVERAGE	.071	.066	.068	.058	.049	.062

Commercial concerns achieved an average 5.4. percent. Incar Motors Nigeria Limited consistently performed below average 2 percent for each of the first four years and 0.1 percent for 1982 against 6, 4, 6, 7, 4.4 percent for the five years of the study 1978-82. Intra Motors Limited with 11 percent recorded the best result in the industry.

TABLE 4:6(b) YIELDS FOR THE NET INCOME TO TOTAL ASSETS RATIO

COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
Commercial						
CFAO Ltd	.051	.035	.041	.055	n.a	.046
Incar Motors Nig Ltd	.021	.016	.017	.02	.001	.015
Intra Motors Nig Ltd	.038	.11	.119	.125	.154	.109
John Holt Nig Ltd	.013	(.044)	.057	.074	.065	.033
NCR Nigeria Ltd	.104	.075	.092	.096	.057	.085
UAC Nigeria Ltd	.077	.049	.049	.056	.038	.054
UTC Nigeria Ltd	.103	.071	.06	.104	.088	.085
Stockvis Nig Ltd	.044	.006	.024	.002	(.043)	(.003)
TOTAL	.451	.318	.459	.532	.31	
AVERAGE	.06	.04	.057	.067	.044	.054
Financial						
JHI Ltd	.031	.038	.032	.033	.036	.092
U.B.A. Ltd	.016	.014	.012	.009	.009	.012
U.B.N. Ltd	.007	.009	.11	.012	.01	.03
TOTAL	0.054	0.016	.154	.054	.055	
AVERAGE	.018	.02	.051	.018	.018	.0251
Construction						
Cappa & D'Alberto	.133	.137	.007	.06	.079	.083
Costain (WA) Nig Ltd	.047	.038	.076	.067	.067	.059
Roads Nigeria Ltd	.037	.026	.031	.038	n.a	.038
Taylor Woodrow Ltd	.029	.019	.029	.027	n.a	.026
TOTAL	.246	.22	.213	.192	.146	
AVERAGE	.062	.055	.053	.048	.073	.0582
Petroleum						
African Petr. Ltd	.096	.105	.102	.085	.091	.096
Agip (Nig) Ltd	.089	.095	.105	.115	.083	.097
Mobil Oil Nig Ltd	.093	.109	.094	.061	.093	.09
Total Nigeria Ltd	.071	.117	.1	.104	n.a	.098
TOTAL	.349	.426	.401	.365	.267	
AVERAGE	.087	.107	.10	.091	.089	.095

Financial institutions averaged 2.5 percent indicating a higher asset component, JHI Limited had the best return on investment 9 percent, while U.B.A. Limited recorded the poorest 1.2 percent. Except for 1981, the industrial average was consistently 2 percent.

The 5.8 percent average for construction companies was equalled only by Cappa and D.'Alberto Limited, and Costain Limited 8, and 6 percent respectively. The other two companies, recorded below average results. Similarly, they recorded below averages for individual years.

The Petroleum industry had a 10 percent average. All the four companies achieved similar averages. Mobil Oil Limited and Total Limited recorded 9, and 10 percent respectively.

4.7 NETWORTH TO TOTAL ASSETS

In the manufacturing industry, Nigeria Textiles Limited and Nigerian Hoechst had the poorest averages of 21, and 16 percent,respectively. With this ratio, the lower the level of leverage used the higher the ratio. Nigerian Tobacco Limited recorded 63 percent indicating high reliance on equity for funding. Other high equity based companies included Vono Products Limited and Van Leer Containers Limited with 60 percent each.

Intra Motors Limited with 62 percent ranked highest among those companies that use substantial equity for financing. Starting with high 91 percent in 1978, it has consistently reduced its reliance on equity as a major source of financing to a mere 34 percent in 1982. Conversely Incar Motors Nigeria Limited though in the same line of business relied on other sources of financing over the period scoring only 11, 13.4, 17, 16, and 19 percent as equity contribution to total Assets.

NCR Limited appeared to have applied a 50/50 rate in its decision on equity and debt financing reconding 56, 55, 58, 52, and 51 percent for the years 1978-1982 respectively.

TABLE 4.7(a) RESULTS OF THE NETWORTH TO TOTAL ASSETS RATIO 1978 - 1982

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Manufacturing						
1.	Bata Nigeria Ltd	.43	.377	.384	.363	.363	.383
2.	Cadbury Nig Ltd	.382	.389	.315	.377	.351	.363
3.	Foremost Dairies	.256	.558	.615	.530	n.a	.489
4.	Hagemeyer Nig Ltd	.38	.426	.361	.379	.429	.393
5.	Hoechst	.085	.15	.221	.208	.169	.167
6.	Inter. Paints (WA)	.454	.595	.574	.486	.493	.521
7.	Livestock Feeds	.438	.415	.481	.51	.043	.377
8.	Nig. Breweries	.561	.519	.559	.574	.472	.537
9.	Metal Box Nig Ltd	.391	.332	.375	.344	.352	.359
10.	Nigerian Ropes Ltd	.375	.527	.483	.521	.452	.472
11.	Nig. Sewing Machine	.531	.596	.557	.401	.32	.481
12.	Nig. Tobacco Ltd	.538	.693	.663	.606	n.a	.625
13.	Nig. Textiles Ltd	.386	.372	.114	.106	.058	.207
14.	Van Leer Cont. Nig Ltd	.571	.584	.557	.676	.609	.60
15.	Vono Products Ltd	.603	.549	.635	.583	.634	.60
16.	Thomas Wyatt Nig Ltd	.201	.432	.44	.407	.602	.416
	TOTAL	6.582	7.514	6.94	7.07	5.342	
	AVERAGE	.412	.47	.434	.442	.382	.428

Commercial banks recorded the lowest averages for this ratio 4.5 percent each for U.B.A. Limited and Union Bank indicating that banks rely on other sources for financing current deposits, and other accounts. JHI Limited on the one hand achieved 61 percent average which is far above the average of 23.4 percent for the industry.

If Cappa and D'Alberto Limited and Costain (W.A) Limited with averages of 63 percent each appeared to have relied heavily on equity for financing, Roads

Nigeria Limited and Taylor Woodrow Limited with 12, and 26 percent respectively would appear to have use too much debt. Consequently, the industry average of 44.4 percent was to high for two and too low for two companies.

TABLE 4:7(b) RESULTS OF THE NETWORTH TO TOTAL ASSETS RATIO 1978 - 1982

COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
Commercial						
1. CFAO Ltd	.26	.35	.333	.27	n.a	.303
2. Incar Motors Nig Ltd	.112	.134	.166	.161	.187	.152
3. Intra Motors Nig Ltd	.909	.834	.602	.396	.338	.616
4. John Holt Nig Ltd	.173	.244	.298	.32	.394	.286
5. NCR Nig Ltd	.561	.55	.576	.519	.514	.544
6. NAC Nigeria Ltd	.431	.494	.431	.389	.386	.426
7. UTC Nigeria Ltd	.364	.38	.414	.422	.351	.386
8. Stockris Nig. Ltd	.214	.28	.28	.227	.194	.239
TOTAL	3.024	3.266	3.1	2.704	2.364	
AVERAGE	.378	.408	.388	.338	.338	.36
Financial						
1. JHI Ltd	.449	.618	.665	.653	.66	.609
2. Unit Bank for Africa	.048	.051	.045	.037	.051	.046
3. Union Bank of Nigeria	.049	.047	.045	.041	.041	.045
TOTAL	.546	.716	.755	.731	.752	
AVERAGE	.182	.239	.252	.244	.251	.234
Construction						
1. Cappa & D'Alberto	.613	.631	.661	.644	.585	.627
2. Costain (WA) Nig Ltd	497	.564	.962	.565	.531	.624
3. Roads Nigeria Ltd	.092	.07	.152	.155	n.a	.117
4. Taylor Woodrow Nig.Ltd	.239	.265	.403	.114	n.a	.255
TOTAL	1.441	1.53	2.178	1.478	1.116	
AVERAGE	.36	.383	.545	.37	.56	.444
Petroleum						
1. African Petr. Ltd	.163	.198	.202	.183	.24	.197
2. Agip Nig. Ltd	.215	.187	.219	.233	.227	.216
3. Mobil Oil Nig Ltd	.284	.374	.419	.349	.486	.332
4. Total Nigeria Ltd	.17	.205	.201	.198	n.a	.194
TOTAL	.832	.964	1.041	.963	.953	
AVERAGE	.208	.241	.26	.234	.318	.2522

With the exception of Mobil Oil Nigeria Limited which averaged 38 percent, all other three companies in the petroleum sector appeared to have thought an average of 20 percent adequate. Agip Limited consistently maintained an average of 21 percent except for 1979 when it recorded a slightly lower average 18 percent.

VALUATION RATIOS

4.8 PRICE TO EARNINGS

The price to earnings ratio has to be interpreted with caution, higher ratios may be indicative of determination in earnings and not a rise in prices. (Book value of prices were used).

A 5 times ratio was computed for the manufacturing sector. Cadbury Nigeria Limited with 2, 1, 2, and 2 times for each of the years 1978 - 1982 appeared to have done achieved the best results in the industry. Other companies that performed closely to targets include - Hagemeyer Nigeria Limited, Nigerian Hoechst, Nigerian Breweries Limited, Metal Box Limited, Nigerian Tobacco Limited, and Van Leer Containers Nigeria Limited with 2, 3, 2, 3, 3, 3.2, and 3.3 times respectively. Nigerian Textiles Limited recorded the poorest performance in the sector - a complete absence of earnings. Vono products Limited consistently performed poorly 46, 33, 9, 14 times for each year since 1979 against an industrial average of 7.2, 7, 3, and 4.4 times for the same period.

TABLE 4:8(a) RESULTS FOR THE PRICE TO EARNINGS RATIO

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Manufacturing						
1.	Bata Nigeria Ltd	10.00	2.94	5.56	n.a	12.5	6.2
2.	Cadbury Nig. Ltd	1.95	1.22	1.7	1.54	2.00	1.682
3.	Foremost Dairies	3.98	4.1	3.73	4.1	n.a	3.978
4.	Hargemeyer (Nig) Ltd	2.27	2.89	2.03	1.37	1.78	2.068
5.	Hoechst	7.05	1.51	1.35	147	136	2.548
6.	Inter. Paints (WA)	9.9	21.01	7.28	3.46	7.44	9.818
7.	Livestock Feeds	4.2	2.77	2.96	3.86	2.18	3.194
8.	Nig. Breweries Ltd	3.546	2.564	2.049	1.78	1.506	2.289
9.	Metal Box Nig. Ltd	8.48		3.43	1.15	1.74	2.96
10.	Nigerian Ropes Ltd	6.35	15.39	5.88	4.75	5.04	7.682
11.	Nig. Sew. Machines	1.82	3.26	10.22	2.61	4.69	4.52
12.	Nig. Textiles Ltd						
13.	Nigeria Tobacco Co.	2.54	1.68	4.07	4.39	n.a	3.17
14.	Van Leer Cont. Ltd	5.00	4.75	2.3	1.92	2.71	3.336
15.	Vono Products Ltd	3.5	45.46	33.33	8.62	13.89	20.96
16.	Thomas Wyatt Nig Ltd	2.70	6.1	3.47	4.07	5.32	3.332
	TOTAL	73.266	115.644	89.359	45.09	62.156	
	AVERAGE	4.579	7.228	5.585	2.818	4.44	4.93
	Commercial						
1.	CFAO	2.33	4.20	3.33	1.78	n.a	2.91
2.	Incar Motors Nig Ltd	3.02	4.41	4.17	3.16	69.44	16.84
3.	Intra Motors Nig Ltd	12.5	4.5	3.33	2.5	1.92	4.95
4.	John Holt Nig. Ltd	9.44	9.24	3.17	2.06	2.21	5.224
5.	NCR Nigeria Ltd	2.96	3.73	2.94	2.55	3.7	3.176
6.	UAC Nigeria Ltd	3.5	6.09	6.09	3.98	5.59	5.05
7.	UTC Nigeria Ltd	3.25	3.33	3.7	1.95	1.73	2.792
8.	Stockvis Nig Ltd	3.07	22.73	5.75	71.43		20.596
	TOTAL	40.07	58.18	32.48	89.41	84.59	
	AVERAGE	5.009	7.273	4.06	11.176	12.084	7.921

Commercial concerns recorded 8 times on the average. The ratio for Stockvis Nigeria Limited deteriorated over the study period. Stockvis Limited sank from 3.07 to 71.8 times between 1978 - 1981 and finally earned nothing in 1982. Although Incar Motors Limited scored a low average, it had good showing for the years prior to 1982. U.T.C. Nigeria Limited recorded the best relationship 2.8 times.

U.B.A. Limited consistently maintained values that were better than industry average of 2 times for all the years against average 5, 4.2, 3.3, 2.6, and 2.3 times for the years 1978 - 1982 respectively.

TABLE 4:8(b) RESULTS FOR THE PRICE TO EARNINGS RATIO

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Financial						
1.	JHI Ltd	8.197	6.25	5.319	4.31	3.788	5.573
2.	U. B. A. Ltd	1.695	2.273	2.00	1.754	1.539	1.852
3.	U. B. N. Ltd	6.25	4.00	2.632	1.818	1.667	3.273
	TOTAL	16.142	12.523	9.951	7.882	6.994	
	AVERAGE	5.381	4.174	3.317	2.623	2.331	3.565
	Construction						
1.	Cappa & D'Alberto	4.40	6.794	65.79	3.012	3.546	16.71
2.	Costain (W.A.) Ltd	2.632	3.57	2.941	1.786	1.67	2.52
3.	Roads Nig. Ltd	1.235	1.323	1.397	.951	n.a	1.227
4.	Taylor Woodrow Ltd	4.237	8.333	8.476	2.273	n.a	5.83
	TOTAL	12.505	20.02	78.604	8.13	5.216	
	AVERAGE	3.126	5.005	19.651	2.033	2.608	6.4846
	Petroleum Marketing						
1.	African Petroleum Ltd	6.024	5.00	4.1	5.00	3.32	4.691
2.	Agip Nigeria Limited	3.73	2.34	1.931	1.524	1.754	2.256
3.	Mobil Oil Nig. Ltd	2.083	1.923	2.1	2.179	1.786	2.014
4.	Total Nigeria Ltd	.843	1.142	1.241	2.22		1.362
	TOTAL	12.68	10.405	9.372	10.923	6.87	
	AVERAGE	3.17	2.601	2.343	2.731	2.29	2.627

While the industrial average was 6.5 times for the construction, Cappa and D'Alberto Limited had deteriorating ratios getting to a low 65.8 times in 1980. It has since adjusted to 3.6 times in 1982. Shareholders earned comperatively well in Roads Nigeria Limited recording 1.2, 1.3, 1.4 and 0.95 times for the years 1978 - 1981. Costain (W.A.) Limited also performed above industry standard.

The petroleum industry appears to have performed considerably well with three industries onsistently maintaining standards above the industry. Starting with= a comparatively poor performance, African Petroleum Limited, has since improved upon it performance rising to 3.3 times in 1982.

GROWTH RATIOS

Growth ratios were computed on an annual basis, this implied that the compound sum interest factor $(1 + r)^n$ was read at N=1 or $(1 + R)^N$

4.9 GROWTH IN SALES

Sales grew in all companies in the manufacturing industry. Nigerian Breweries though achieving the highest growth rate of 30 percent, has been declining over the years. Sales grew by 82 percent by 1981, and then picked up in 1982 recording 29 percent. Nigerian Textiles Limited recorded decline in sales 28 to 4 percent between 1978 and 1982. It finally recorded 0.4 percent growth, the lowest in the industry.

Growth in commercial companies averaged 9 percent over the period. John Holt Limited recorded the lowest growth in sales 0.4 percent over the period. Intra Motors Nigeria Limited experienced tremendous growth in the last three years 50, 55, 73 per for the years 1980 - 1982 respectively.

JHI Limited achieved 33 percent growth over the period similar to the industrial average 31.4 percent for the same period. U.B.A. Limited exhibited a most stable growth rate of 29, 38, 18, 42, and 31.3 percent for the years 1978 - 1982. Union Bank Limited continued to show upward trends after a low 1978 showing, and finally leading with 41 percent in 1982.

TABLE 4.9(a) YIELDS FOR SALES GROWTH RATIO 1978-1982

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Manufacturing						
1.	Batta Nigeria Ltd	.946	1.202	1.131	.821	.978	1.016
2.	Cadbury Nig. Ltd	1.461	1.173	1.19	1.237	1.141	1.241
3.	Foremost Dairies	1.107	1.287	1.304	1.104	n.a	1.201
4.	Hagemeyer Nig. Ltd	1.19	.75	1.316	1.177	.873	1.061
5.	Hoechst	1.057	1.402	1.314	1.25	1.154	1.236
6.	Int. Paints (WA) Ltd	.964	.937	1.203	1.207	.984	1.059
7.	Livestock Feeds	1.143	1.215	.922	1.167	1.372	1.164
8.	Nig. Breweries Ltd	1.823	1.189	1.118	1.077	1.29	1.30
9.	Metal Box Nig. Ltd	1.331	1.172	1.355	1.396	.872	1.225
10.	Nigerian Ropes Ltd	1.098	.912	1.259	1.193	.916	1.076
11.	Nig. Sew. Machine	1.05	.75	1.197	1.683	.912	1.119
12.	Nigerian Textiles Ltd	.709	1.221	1.128	1.004	.958	1.004
13.	Nig. Tabacco Co. Ltd	1.311	1.102	1.007	1.07	n.a	1.123
14.	Van Leer Cont. Ltd	1.086	1.132	1.344	1.088	1.04	1.138
15.	Vono Products Ltd	1.137	.726	1.05	1.185	.982	1.016
16.	Thomas Wyatt Nig Ltd	1.156	.917	1.057	1.329	.96	1.083
	TOTAL	18.569	17.085	18.889	18.938	14.432	
	AVERAGE	1.162	1.068	1.181	1.187	1.031	1.126

C Construction companies averaged 19 percent, but Roads Nigeria Limited and Taylor Woodrow Limited with 21, and 26 percent respectively performed slightly above the industry. Costain achieved average growth of 4 percent over the period.

Sales growth in the petroleum : industry averaged 21 percent. Total Nigeria Limited with 32, 33, 21 and 26 percent for the years 1978-1981 respectively led the

industry in a deteriorating rate. With a sales loss of 87 percent, in 1981, African Petroleum Limited increased its growth by 30 percent in 1982.

TABLE 4.9(b) YIELDS FOR SALES GROWTH RATIO. 1978-1982

COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
Commercial						
1. CFAO Nigeria Ltd	1.051	1.002	1.035	1.491	n.a	1.142
2. Incar Motors Nig Ltd	1.03	.772	1.156	1.321	0.784	1.013
3. Intra Motors Nig Ltd	1.027	.611	1.496	1.546	1.727	1.281
4. John Holt Nig Ltd	.972	.704	.979	1.296	1.031	.996
5. NCR Nigeria Ltd	1.012	.988	1.242	1.241	.885	1.074
6. UAC Nigeria Ltd	1.124	.796	1.128	1.23	.941	1.044
7. UTC Nigeria Ltd	1.179	1.066	.92	1.506	1.144	1.163
8. Stockvis Nig Ltd	1.03	.698	1.025	1.351	.91	1.003
TOTAL	8.425	6.637	8.981	10.982	7.422	
AVERAGE	1.052	.83	1.123	1.373	1.06	1.088
Financial						
1. JHI Ltd	n.a	1.12	1.685	1.253	1.151	1.327
2. U.B.A. Ltd	1.288	1.379	1.176	1.418	1.313	1.315
3. Union Bank Ltd	1.266	1.059	1.357	1.453	1.41	1.309
TOTAL	2.554	3.558	4.218	4.224	3.876	
AVERAGE	1.277	1.186	1.406	1.408	1.292	1.314
Construction						
1. Cappa & D'Alberto Ltd	1.201	1.319	.783	1.042	1.504	1.17
2. Costain (W.A.) Ltd	1.027	.71	.773	1.323	1.352	1.037
3. Roads Nigeria Ltd	.979	1.515	1.12	1.23	n.a	1.209
4. Taylor Woodrow Nig	.883	.901	.918	2.347	n.a	1.262
TOTAL	4.09	4.445	3.594	5.932	2.856	
AVERAGE	1.023	1.111	.899	1.483	1.428	1.1888
Petroleum						
1. African Petr. Ltd	1.61	1.394	1.173	0.129	1.301	1.121
2. Agip Nigeria Ltd	1.45	1.417	1.20	1.20	1.04	1.261
3. Mobil Nigeria Ltd	9.56	1.181	1.121	1.116	1.06	1.208
4. Total Nigeria Ltd	1.321	1.325	1.206	1.261	n.a	1.278
TOTAL	5.941	5.317	4.7	3.706	3.40	
AVERAGE	1.485	1.329	1.18	.927	1.134	1.211

4.10 GROWTH IN INCOME

Metal Box Limited achieved the highest growth rate 101 percent over the period; A record 519.3 percent growth for 1980 accounted for this growth, all other years, Metal Box Limited experienced decrease in income. The more stable growth was achieved by Nigerian Breweries Limited, averaging 143, 39, 25, 16, and 18 percent over the period. Sample companies appeared to have significant growths in one year with preceeding and succeeding loses for other years. For example, International Paints had decreases of 70.5, and 52.8 percent for 1978, and 1979 respectively. Subsequently it netted 188, and 111 percent for the year 1980 and 1982 respectively, but recorded a decrease of 59 percent for 1982.

Net income decreased in the commercial industry to an average of 92 percent for the period. Except for U.T.C. Nigeria Limited, CFAO Limited, and Intra Motors Limited with 17, 13, and 39 percent respectively, all other companies recorded decreases, in net income growth with Stockvis Nigeria Limited recording the highest decrease of 94 percent.

Financial companies each recorded a positive growth rate over the period with 24, 15.4 and 22 percent for JHI Limited, U.B.A. Limited, and Union Bank Limited respectively. John Holt Limited alone achieved positive growth rate over the period, while Union Bank of Nigeria Limited recorded decreases in 1978.

TABLE 4.10(a) GROWTH IN NET INCOME 1978 - 1982

	COMPANY	1978	1979	1980	1981	1982	COMPANY AVERAGE
	Manufacturing						
1.	Bata Nigeria Ltd	.443	3.634	.505	(2.278)	.219	.505
2.	Cadbury Nig Ltd	1.302	1.604	.955	1.105	1.026	1.199
3.	Foremost Dairies	1.06	.971	1.097	.916	n.a	1.011
4.	Hagemeyer Nig Ltd	.75	.786	1.422	1.486	.77	1.043
5.	Hoechst	.58	5.84	1.34	.918	1.086	1.953
6.	Inter. Paints W.A.	.295	.472	2.879	2.105	.407	1.232
7.	Livestock Feeds	.91	1.516	.935	.768	1.767	1.179
8.	Nig. Breweries Ltd	2.438	1.385	1.252	1.155	1.18	1.482
9.	Metal Box Nig Ltd	.629	(.401)	6.193	2.985	.657	2.013
10.	Nigeria Ropes Ltd	.831	.413	2.615	1.24	.941	1.208
11.	Nig. Sew. Machine	.853	.557	.319	3.92	.555	1.241
12.	Nig. Textiles Ltd	(1.246)	(.003)	(4.06)	(5.64)	(1.09)	(2.408)
13.	Nig. Tobacco Ltd	1.311	1.102	1.007	1.07	n.a	1.123
14.	Van Leer Cont. Ltd	1.036	1.045	2.068	1.199	.708	1.211
15.	Vono Products Ltd	.709	.75	1.418	3.763	.62	1.317
16.	Thomas Wyatt Nig Ltd	1.233	.442	1.765	.854	.76	1.011
	TOTAL	13.135	19.169	21.71	15.566	9.606	
	AVERAGE	.821	1.198	1.357	.973	.686	1.007

The construction industry recorded an overall average of 64 percent. This was surpassed by Cappa and D'Alberto with 183 percent. The 1981 average of 868.4 percent accounted for this high average. Similarly the 51 percent for Taylor Woodrow Limited was the result of 1981 average. No growth trends were observed for other years.

With the exception of Agip Nigeria Limited all other companies recorded positive growth rates for all the years. The industrial averages flucluated widely from 6 percent in 1978 to 7 percent in 1980, and up 22.4 percent in 1981 and finally plumeted to 3 percent in 1983.

TABLE 4.10(b) GROWTH IN NET INCOME 1978 - 1982

	COMPANY	19781	1979	1980	1981	1982	COMPANY AVERAGE
	Commercial						
1.	CFAO Nigeria Ltd	.835	.555	1.265	1.866	n.a	1.13
2.	Incar Motors Nig Ltd	.734	.686	1.055	1.332	.022	.764
3.	Intra Motors Nig Ltd	.249	2.67	1.38	1.362	1.293	1.391
4.	John Holt Nig Ltd	.3	(2.568)	1.21	1.444	.934	.264
5.	NCR Nigeria Ltd	.613	.784	.872	1.45	.692	.882
6.	UAC Nigeria Ltd	.722	.566	1.154	1.347	.711	.9
7.	UTC Nigeria Ltd	1.089	.87	.81	1.95	1.124	1.167
8.	Stockvis Nig Ltd	.58	.14	3.91	.08	.834	.942
	TOTAL	5.122	3.693	11.656	10.821	3.942	
	AVERAGE	.64	.462	1.457	1.353	.563	.895
	Financial						
1.	JHI Ltd	n.a	1.294	1.448	1.079	1.13	1.238
2.	U.B.A. Ltd	1.34	(.997)	1.129	1.134	1.171	1.154
3.	Union Bank Ltd	(.449)	1.571	1.535	1.434	1.095	1.217
	TOTAL	1.789	3.862	4.112	3.647	3.397	
	AVERAGE	.895	1.287	1.371	1.216	1.132	1.18
	Construction						
1.	Cappa & D'Alberto	1.706	1.172	.046	9.684	1.544	2.83
2.	Costain (WA) Ltd	.72	.74	1.222	1.65	1.074	1.083
3.	Roads Nigeria Ltd	.637	.933	1.262	1.655	n.a	1.122
4.	Taylor Woodrow Ltd	.547	.768	.98	3.73	naa	1.506
	TOTAL	3.62	3.613	3.51	16.719	2.618	
	AVERAGE	.905	.903	.878	4.18	1.309	1.635
	Petroleum						
1.	African Petr. Ltd	2.39	1.24	1.186	1.186	1.034	1.407
2.	Agip Nigeria Ltd	1.77	1.594	1.21	1.265	.868	1.341
3.	Mobil Oil Nig Ltd	1.84	1.10	.791	1.09	1.19	1.202
4.	Total Nigeria Ltd	2.241	1.788	1.086	1.253	n.a	1.617
	TOTAL	8.241	5.722	4.273	4.894	3.092	
	AVERAGE	2.06	1.431	1.068	1.224	1.031	1.363

CHAPTER V

SUMMARY AND CONCLUSION

Table 5.1 is a summary for ten ratios. The Commercial industry appears to have recorded the most stable average for the current ratios about 1.3 times for all the five years. Similarly, the construction industry recorded about the same value for three years 1.3 times. The most instable movement was in financial industry. The ratio moved from 4.09 times in 1978 to 28.3 times.

The construction industry alone recorded, averages above one for all the years for the quick ratio. The manufacturing firms consistently averaged about 0.5 times while all the other industries recorded averages close but not equivalent to one.

Financial institutions maintained high relatioships for working capital to total assets ratio, consistently achieving about 25 percent over the years. Petroleum companies on the other hand consistently recorded lower averages of 5 percent. Manufacturing, Commercial

TABLE 5:1(a) FIVE INDUSTRIAL RATIO AVERAGES FROM 1978-1982

INDUSTRY (and number of Companies)		CR TIMES	QUICK TIMES	WC/TA PERCENT	NI/S PERCENT	NI/NW PERCENT
Manufacturing	1978	1.346	.582	14.7	6.4	17
	79	1.432	.663	16.0	6.1	16.3
(16)	80	1.451	.601	18.1	6.0	15.1
	81	1.031	.524	13.2	4.6	12.3
	82	1.18	.558	8.7	3.5	13.1
5 YEAR AVERAGE		1.344	.586	14.1	5.3	14.6
Commercial	1978	3.315	.613	18.5	4.4	17.3
	79	1.359	.6	19.6	3.2	7.9
((8)	80	1.392	.721	21.0	4.1	14
	81	1.354	.687	22.3	3.9	17.1
	82	1.315	.734	21.5	2	6
5 YEAR AVERAGE		1.347	.671	20.6	3.5	12.8
Financial	1978	4.088	-	13.4	25.4	18.5
	79	5.038	-	24.7	27	17
(3)	80	7.056	-	27.0	25	18.7
	81	28.213	-	29.6	20.9	19.2
	82	10.176	-	17.1	19.1	16.4
5 YEAR AVERAGE		10.83		24.4	25.5	18
Construction	1978	1.226	1.008	17.8	5.1	20.9
	79	1.308	1.107	8.8	5	18.3
(4)	80	1.311	1.082	11.6	3.5	9.2
	81	1.36	1.087	13.6	5.4	17.7
	82	1.651	1.372	27.9	6.6	13.1
5 YEAR AVERAGE		1.371	1.131	15.9	5.12	15.8
Petroleum	1978	1.957	.783	4.7	6.4	43.6
	79	1.077	.899	5.0	6.6	46.2
(4)	80	1.1	.865	5.8	5.9	42.3
	81	1.064	.874	4.3	6.2	41.6
	82	1.113	.924	5.2	5.5	31.2
5 YEAR AVERAGE		1.082	.869	5.0	6.12	41.0

CR = Current Ratio; WC/TA = Working Capital to Total Assets; NI/S = Net Income to Sales; NI/NW = Net Income to Networth.

and Construction firms maintained similar averages of less or equal to 15 percent for all the years.

For the net income to sales ratio, three industries construction, manufacturing, and petroleum had averages close to 5 percent. The financial industry recorded averages

above 20 percent, while the commercial industry had 3.5 percent average. The ratio is most stable in the petroleum industry, the reverse was true for the commercial industry.

The net income to net worth ratio is highest for the petroleum industry leading the industries with 40 percent. With the exception of commercial industry which averaged close to 20 percent.

For manufacturing, commercial, financial, construction, and petroleum industries; the return on total investment averaged 6.2; 5.4; 2.5; 5.8; and 9.5 percent respectively.

The relationship of networth to total assets rose from 56 percent 1982 in the construction industry to a peak 77 percent in the financial industry. The commercial industry recorded 66 percent ratio of debt to assets. While the petroleum, commercial, and manufacturing sectors averaged 74, 78, 64 and 57 percent respectively.

The price to earnings ratio had the highest values in the petroleum industry. The poorest performance showed in the commercial industry averaging 5 times. The construction industry recorded the poorest average 19.6 percent for any individual year.

Net income grew steadily in the financial industry for the last four years 1980-82. Similarly, the

petroleum industry consistently performed positively over the period. Manufacturing, commercial, and construction industries on the other hand have recorded positive growth rates.

TABLE 5:1(b) FIVE INDUSTRIAL RATIO AVERAGES FROM 1978-1982

INDUSTRY (and number of Companies		NI/TA PERCENT	NW/TA PERCENT	P/E TIMES	NG TIMES	SG TIMES
Manufacturing	1978	7.1	41.2	4.579	.831	1.162
	79	6.6	47	7.228	1.198	1.068
(16)	80	6.8	43.2	5.585	1.357	1.181
	81	5.8	44.2	2.818	.973	1.187
	82	4.9	38.2	4.44	.686	1.031
5 YEAR AVERAGE		6.2	42.8	4.93	1.01	1.13
Commercial	1978	6	37.8	5.009	.64	1.053
	79	4	40.8	7.273	.462	.8
(8)	80	5.7	38.8	4.06	1.457	1.123
	81	6.7	33.8	11.176	1.353	1.373
	82	4.4	33.8	12.084	.563	1.06
5 YEAR AVERAGE		5.4	36	7.92	.895	1.09
Financial	1978	1.8	18.2	5.381	.895	1.277
	79	2	23.9	4.174	1.287	1.186
(3)	80	5.1	25.2	3.317	1.371	1.406
	81	1.8	24.4	2.623	1.216	1.408
	82	1.8	25.1	2.331	1.132	1.292
5 YEAR AVERAGE		2.51	23.4	3.565	1.18	1.31
Construction	1978	6.2	36	3.126	.905	1.023
	79	5.5	38.3	5.005	.903	1.111
(4)	80	5.3	54.5	19.651	.878	.899
	81	4.8	37	2.033	4.18	1.483
	82	7.3	56	2.608	1.309	1.428
5 YEAR AVERAGE		5.82	44.4	6.486	1.64	1.19
Petroleum	1978	8.7	20.8	3.17	2.06	1.486
	79	10.7	24.1	2.601	1.431	1.329
(4)	80	10	26	2.243	1.068	1.18
	81	9.1	23.4	2.731	1.224	.927
	82	8.9	31.8	2.29	1.031	1.134
5 YEAR AVERAGE		9.5	25.22	2.63	1.36	1.21

NI/TA = Net Income to Total Assets; NW/TA = Networth to Total Assets; P/E = Price to Earnings; NG = Net Income Growth; and SG Sales Growth.

Sales grew in all the industries. The manufacturing= and financial industries had positive growth for all years with the latter achieving the highest growth rate. The other industries recorded sales growth for one year each.

Ratio values (especially for individual firms) tended to have varing values from yeartto year. Five year averages tended to present a good image for the firm, and consequently misleading. Wide flunctuations existed in all firms, recording excellent averages in one year, and then a poor figure for subsequent or preceeding years.

Growth ratios reveal that sample firms are essentially growing firms. As revealed by sales figrues. Three industries experienced growth rates in the last three years. Financial, construction, and petroleum. Essentially all sample firms are growth companies.

In conclusion we state that the averages displayed that what is regarded as standards in other countries is not necessarily standard here. For example, American standard for the current ratio is 2 times but the average as computated here is one. Also the standard of 1 time for the quick ratio, is not obtainable here as averages consistently fell below one. Similarly, a 7 percent growth rate is offer often considered optimal for sales, but the results show that most industries recorded growth rates of above growth rates close to 20 percent.

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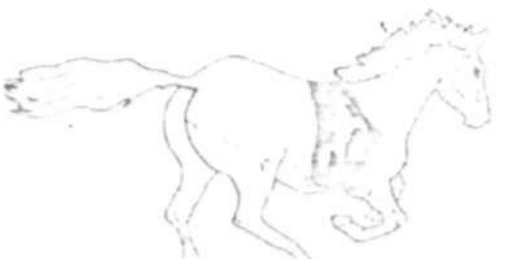
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APPENDIX

FIVE YEAR FINANCIAL SUMMARY
OF SOME SAMPLE COMAPNIES

Five Year Financial Summary
for the year ended 30th September

	1982	1981	1980	1979	1978
	₦'000	₦'000	₦'000	₦'000	₦'000
Cash and short term funds	494,278	254,950	201,926	245,658	250,012
Bills discounted	740,761	516,747	458,946	361,791	99,572
Quoted investments	1,518	1,393	893	16	16
Unquoted investments	100	—	—	—	—
Loans and advances	1,654,710	1,395,593	931,654	632,933	656,367
Other assets	245,285	367,922	199,047	183,907	159,947
Fixed assets	45,574	30,561	22,896	19,661	17,048
Total assets	3,182,226	2,567,166	1,825,362	1,445,206	1,184,962
Less: Other liabilities	167,474	143,968	119,127	92,637	254,596
	3,014,752	2,423,198	1,706,235	1,352,569	930,366
Represented by:-					
Share capital	54,432	36,288	36,288	36,288	30,240
Statutory reserve	46,102	37,947	30,497	25,300	21,900
General reserve	28,500	10,000	—	—	—
Profit and loss account	342	20,683	14,864	5,505	6,242
Shareholders' funds	129,376	104,918	81,649	67,393	58,382
Deposits for 11¾ loan stock 1988/1992	31,831	—	—	—	—
Capital funds	161,207	104,918	81,649	67,393	58,382
Customers' deposits	2,853,545	2,318,280	1,624,586	1,282,176	822,784
Negotiable certificates of deposit	—	—	—	3,000	49,200
Capital employed	3,014,752	2,423,198	1,706,235	1,352,569	930,366
Acceptances, etc.	579,764	755,790	487,246	230,211	206,404
Gross earnings	284,838	201,817	136,942	102,372	96,691
Profit before taxation	64,970	60,197	35,121	22,914	36,441
Profit after taxation	32,623	29,801	20,788	13,547	8,621
Dividends	8,165	6,532	6,532	4,535	3,456
Earnings per share (adjusted)	60k	55k	38k	25k	16k
Dividends per share (adjusted)	15k	12k	12k	8k	6k
Dividend cover	4 times	4.6 times	3.1 times	3.0 times	2.5 times
Total assets per share (adjusted)	₦58.46	N47.16	N33.53	N26.55	N21.77



Ten Year Financial Rec

	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973
BALANCE SHEET	₦'000	₦'000	₦'000	₦'000	₦'000	₦'000	₦'000	₦'000	₦'000	₦'000
Fixed Assets	49,694	49,534	49,473	50,917	29,453	18,089	9,457	4,752	4,893	3,332
Net Current Assets (Liabilities)	(99)	(1,155)	(2,399)	(5,659)	(6,629)	(4,845)	497	592	262	371
Assets Employed	49,595	48,379	47,074	45,258	22,824	13,244	9,954	5,344	5,155	3,703
Ordinary Shares	6,720	6,720	5,600	5,600	5,600	5,600	2,800	2,800	2,254	2,254
Preference Shares	200	200	200	700	700	700	700	700	700	700
Reserves	32,437	30,926	30,435	25,440	7,207	3,774	6,376	1,753	2,137	709
Minority Interests	8,358	8,218	8,089	9,958	5,682	—	—	—	—	—
Deferred and Future Tax	—	—	—	360	—	(120)	78	91	64	40
Terms Loans	1,880	2,315	2,750	3,200	3,635	3,290	—	—	—	—
Capital Employed	49,595	48,379	47,074	45,258	22,824	13,244	9,954	5,344	5,155	3,703
PROFIT & LOSS ACCOUNT										
Profit before tax	4,661	4,108	3,510	1,674	1,448	580	1,074	850	639	735
Available to ordinary shareholders(a)	1,779	1,563	1,258	1,079	823	368	536	492	478	592
Ordinary dividend	874	806	616	560	560	462	462	448	654	361
PER 50K ORDINARY SHARE										
	Kobo	Kobo	Kobo	Kobo	Kobo	Kobo	Kobo	Kobo	Kobo	Kobo
Net assets(*b*)	291.3	280.1	268.1	231.0	95.3	69.7	68.3	33.9	32.7	22.0
Earnings(*b*)	13.2	11.6	9.4	8.0	6.1	2.7	4.0	3.7	3.6	4.4
Dividend(*c*)	6.5	6.0	5.5	5.0	5.0	4.1	4.1	4.0	5.8	3.2

(a) Arrived at after deducting minority interests, preference dividends and transfers to preference shares redemption reserve from profit after tax, but not prior year adjustments and exceptional items.

(*b*) Adjusted for bonus issues.

(c) Gross in the years 1973, 1974, 1979, 1980, 1981 and 1982.

CAPPA and D'ALBERTO LIMITED

FIVE – YEAR GROUP FINANCIAL SUMMARY

YEAR ENDED 31ST MARCH	1982 ₦'000	1981 ₦'000	1980 ₦'000	1979 ₦'000	1978 ₦'000
FUNDS EMPLOYED					
Share capital	10,000	10,000	10,000	10,000	9,250
Capital reserve	–	–	–	–	750
Revenue reserve	6,906	5,751	5,207	5,233	3,078
	16,906	15,751	15,207	15,233	13,078
EMPLOYMENT OF FUNDS					
Fixed assets	4,520	3,570	3,896	3,270	2,796
Subsidiary companies	471	471	471	471	471
Trade investment	20	20	20	20	20
Other investment	10	–	–	–	–
Net current assets	11,885	11,690	10,820	11,472	9,791
	16,906	15,751	15,207	15,233	13,078
TURNOVER AND PROFIT					
Turnover	40,555	26,972	25,889	33,075	25,082
Profit before taxation	3,724	2,402	654	6,035	5,717
Profit after taxation	2,273	1,472	152	3,315	2,828
Dividends	1,000	828	–	1,200	200
Retained profit	1,273	644	152	2,115	2,628
Earnings per share (adjusted)	11.36k	7.36k	0.76k	16.6k	14.1k
Dividends per share (adjusted)	5.0k	4.14k	–	6.0k	1.0k

Notes:

1. For the purpose of comparison, a 50 kobo unit of share capital has been used throughout.
2. Earnings and dividends per share are based on 20,000,000 ordinary shares of 50 kobo each after adjusting for the bonus shares issued on various dates up to and including 30th May, 1978.
3. Earnings per share are based on the profits after taxation.

Five Years at a Glance

(All amounts in ₦'000)

	1982 ₦	1981 ₦	1980 ₦	1979 ₦	1978 ₦
TURNOVER	68,202	75,364	70,464	69,946	63,462
GROUP PROFITS					
Before taxation	3,538	8,362	11,431	18,725	14,372
After taxation	1,828	5,709	6,160	11,187	7,373
Extraordinary item	(543)	—	—	—	—
Dividends	—	3,400	5,000	5,531	3,750
Retained profit	1,285	2,309	1,160	5,656	3,623
Earnings (kobo) per 50k Stock unit	2·6k	11·4k	12·3k	29·8k	19·7k
Dividends (kobo) per 50k Stock unit	—	6·8k	10·0k	14·7k	10·0k
GROUP BALANCE SHEET					
Fixed assets	77,071	75,407	63,226	62,362	33,161
Depreciation	16,700	14,736	12,212	10,572	12,288
Net fixed assets	60,371	60,671	51,014	51,790	20,873
Goodwill and trade marks	3,000	3,000	3,000	3,000	3,000
Investments	228	228	228	228	228
Current assets	51,281	58,766	54,367	47,313	39,785
Total Assets	114,880	122,665	108,609	102,331	63,886
FINANCED BY					
Share capital	25,000	25,000	25,000	18,750	18,750
Reserves	50,384	49,346	47,037	52,170	15,634
Shareholders' funds	75,384	74,346	72,037	70,920	34,384
Unsecured bank loans	6,000	4,000	—	—	—
Current liabilities	33,496	44,319	36,572	31,411	29,502
	114,880	122,665	108,609	102,331	63,886

The earnings and dividends per stock unit have been calculated on the basis of the issued stock at 30th September each year. The issued stock was increased on 26th February, 1980 from 37·5 million to 50 million units.

COSTAIN

COSTAIN (WEST AFRICA) LIMITED

Five Year Financial Summary

FIVE YEARS ENDED 30TH SEPTEMBER	1978 N	1979 N	1980 N	1981 N	1982 N
FUNDS EMPLOYED:					
Ordinary share capital	2,450,000	2,450,000	3,675,000	3,675,000	3,675,000
Reserves	12,352,077	12,891,386	12,188,968	13,087,626	13,993,205
	14,802,077	15,341,386	15,863,968	16,762,626	17,668,205
EMPLOYMENT OF FUNDS:					
Fixed assets	13,738,980	11,871,317	11,009,092	11,478,173	12,785,887
Investments	16,000	8,800	8,800	18,800	18,800
Long term assets	13,754,980	11,880,117	11,017,892	11,496,973	12,804,687
Net current assets	1,047,097	3,461,269	4,846,076	5,265,653	4,863,518
	14,802,077	15,341,386	15,863,968	16,762,626	17,668,205
Turnover	60,317,178	42,571,178	32,910,926	43,538,732	58,883,627
Profit before taxation	4,385,103	2,131,867	2,518,931	3,700,948	4,015,318
Profit after taxation	1,393,451	1,029,309	1,257,582	2,074,658	2,228,579
Earnings per share	19k	14k	17k	28k	30k
Dividends per share	3.3k	6.6k	10k	16k	18k

Notes:

1. The earnings per share are computed on profits after taxation.
2. The earnings per share and dividends per share are based on 7,350,000 shares.

SHAREHOLDERS AND SHAREHOLDINGS:	Number of shares	%
The ordinary shares in the company are held as follows:—		
Approximately 13,500 Nigerian investors	4,410,000	60.0
Richard Costain (Holdings) Limited	2,760,000	37.5
John Holt Investment Company Limited	180,000	2.5
	7,350,000	100.0

INCAR

Five-Year Financial Summary

FIVE YEARS ENDED 31ST DECEMBER

	1982 ₦'000	1981 ₦'000	1980 ₦'000	1979 ₦'000	1978 ₦'000
FUNDS EMPLOYED					
Share Capital (issued and fully paid up)	3,750	3,750	3,750	2,500	2,500
Capital Reserve	620	620	620	647	647
Revenue Reserve	5,335	5,273	4,610	4,156	3,466
	9705	9643	8980	7303	6613
REPRESENTED BY					
Fixed Assets	6,987	6,838	7,041	7,172	7,153
Current Assets	44,905	53,203	47,054	47,327	51,982
Current Liabilities	(42,237)	(50,448)	(45,165)	(47,246)	(52,572)
Investment	50	50	50	50	50
	9,705	9,643	8,980	7,303	6,613
TURNOVER, PROFIT, TAXATION, EARNINGS AND DIVIDEND					
Turnover	65,701	83,781	63,432	54,876	71,117
Profit before taxation	152	2,448	1,579	1,417	2,442
Profit after taxation	54	1,188	899	852	1,242
Authorised Share Capital	3,750	3,750	3,750	3,750	3,750
Number of shares issued (50 kobo each)	7,500	7,500	7,500	7,500	7,500
Earning per ordinary share	.72k	15.84k	11.99k	11.36k	16.54k
Dividends per ordinary share	—	7.00k	6.00k	5.00k	6.67k

EARNING PER SHARE AND DIVIDEND PER SHARE

The calculation of earnings and dividends per share are based upon the profit attributed to share holders and dividends declared and the number of shares in issue in each of the years, adjusted for bonus issue and the sub-division into shares of 50 kobo each as stated above.

Summary of Results 1978 — 1982

	1978 ₦'000	1979 ₦'000	1980 ₦'000	1981 ₦'000	1982 ₦'000
TURNOVER	102,770	143,246	168,076	217,511	282,889
Trading Profit before taxation	14,805	16,896	20,515	26,591	29,470
Taxation	7,333	7,632	9,525	11,433	13,805
Trading Profit after taxation	7,472	9,264	10,990	15,158	15,665
APPROPRIATIONS					
Dividends	3,735	4,500	6,594	4,500	6,750
Capitalisation by issue of Bonus Shares	1,500	—	3,750	—	11,250
Profit Retained	2,237	4,764	646	10,658	(2,335)
	7,472	9,264	10,990	15,158	15,665
ASSETS EMPLOYED					
Fixed Assets	12,046	12,300	20,847	31,262	42,584
Other Operating Assets	—	831	1,012	1,926	4,862
Investment in subsidiary/associated company	—	700	700	105	150
Net Current Assets	677	3,656	(767)	(843)	(6,231)
Total Net Assets Employed	12,723	17,487	21,792	32,450	41,365
FINANCED BY:					
Share Capital	7,500	7,500	11,250	11,250	22,500
Reserves	5,223	9,987	10,542	21,200	18,865
	12,723	17,487	21,792	32,450	41,365
Earnings per 50k share	16.60	20.59	24.42	33.68	34.80
Dividend per 50k share	8.3	10.00	14.65	10.00	15.00
Dividend cover (based on profit after tax)	2.00	2.06	1.67	3.37	2.3

Note: Earnings and dividend per share for each of the five years have been calculated on the basis of 45,000,000 Ordinary shares of 50k each which takes account of the scrip issues in the years 1978, 1980 and 1982.

Financial Summary

Naira Millions	1977	1978	1979	1980	1981	1982
FUNDS EMPLOYED						
Ordinary shareholders' funds	211.5	232.5	244.5	243.4	257.9	268.6
Loan capital	1.3	1.0	1.0	26.0	26.0	26.0
Future taxation	25.0	—	—	—	—	—
Deferred liabilities	7.1	13.2	18.4	24.0	30.0	35.2
Other long term loan	—	—	—	—	—	2.5
	244.9	246.7	263.9	293.4	313.9	332.3
EMPLOYMENT OF FUNDS						
Fixed assets	104.7	120.3	139.8	154.0	162.3	172.2
Interest in subsidiary company	0.3	0.3	0.3	0.3	0.3	0.3
Interest in associated company	—	3.0	3.0	—	—	—
Trade investments	4.1	1.2	1.1	1.1	1.2	1.2
Long term debts	—	—	—	—	—	5.4
Current assets	341.5	427.1	350.3	409.5	500.0	516.2
Current liabilities	(205.7)	(305.2)	(230.6)	(271.5)	(349.9)	(363.0)
	244.9	246.7	263.9	293.4	313.9	332.3
CAPITAL EXPENDITURE	15.4	25.2	30.8	27.4	23.4	27.7
DEPRECIATION	7.5	9.0	10.8	12.0	14.7	17.0
RESULTS						
Sales to third parties	701.8	788.5	627.3	707.3	869.6	818.3
Profit before taxation	108.9	94.1	46.2	55.8	72.6	49.0
Taxation	(50.2)	(51.7)	(22.2)	(28.1)	(35.3)	(22.5)
Profit after taxation but before extraordinary items	58.7	42.4	24.0	27.7	37.3	26.5
Extraordinary items	—	—	—	(3.7)	—	—
Profit after taxation and extraordinary items	58.7	42.4	24.0	24.0	37.3	26.5
Dividends	(6.5)	(21.1)	(12.0)	(23.9)	(22.3)	(15.9)
Sinking fund reserve	—	—	—	—	—	(2.0)
Profit of the year retained	52.2	21.3	12.0	0.1	15.0	8.6
Dividends per share	2.20K	7.10K	4.04K	8.04K	7.50K	5.36K
Earnings per share	19.76K	14.27K	8.09K	8.09K	12.57K	8.94K
Net assets per share	71.22K	78.27K	82.31K	81.94K	86.85K	90.42K

NOTE: Dividends, earnings and net assets per share are calculated after taking into account the issue of 31,680,000 bonus shares in 1975/76, 79,200,000 bonus shares in 1976/77, 39,600,000 bonus shares in 1977/78 and 99,000,000 bonus shares in 1979/80.

	1978 N'000	1979 N'000	1980 N'000	1981 N'000
Capital employed				
Share capital	23,200	23,200	23,200	34,800
Reserves	29,310	41,368	45,848	58,067
	52,510	64,568	69,048	92,867
Assets employed				
Fixed assets	27,720	35,055	37,043	55,890
Investments	13	13	16	16
Net current assets	25,142	29,594	32,797	37,446
	52,875	64,662	69,856	93,352
Deferred liabilities	365	94	808	485
Net tangible assets	52,510	64,568	69,048	92,867
Turnover	197,516	233,183	261,361	291,677
Profit before taxes	30,226	32,615	27,541	29,612
Taxation	13,068	13,827	12,679	13,372
Profit after taxation	17,158	18,788	14,862	16,240
Dividends	8,276	11,273	6,720	9,744
Profit retained	8,882	7,515	8,142	6,496
Earnings per 50k share	24k	26k	21k	23k
Dividends per 50k share	11k	16k	9k	14k

Earnings and dividends per share for each of the five years have been calculated on the basis of 69,600,000 Ordinary Shares of 50 kobo each which takes account of the scrip issue made in 1981.

Financial Summary five years ended 31st December, 1982

	1982 ₦000	1981 ₦000	1980 ₦000	1979 ₦000	1978 ₦000
1. Turnover					
Including excise duty	241,097	187,636	174,207	155,800	131,024
Excise duty	65,796	52,906	55,036	54,816	43,629
Excluding excise duty	175,301	134,730	119,171	100,984	87,395
2. Capital employed					
Share capital	45,750	45,750	36,600	29,280	21,960
Capital reserves	45,616	45,616	45,616	32,285	30,949
Other reserves	24,579	12,230	11,048	9,240	9,283
Shareholders' funds	115,945	103,596	93,264	70,805	62,192
Loans	—	—	6,480	6,805	7,035
	115,945	103,596	99,744	77,610	69,227
3. Represented by					
Fixed assets	161,115	139,731	103,613	81,746	75,741
Net current liabilities	(45,170)	(36,135)	(3,869)	(4,136)	(6,514)
	115,945	103,596	99,744	77,610	69,227
4. Profit before taxation	53,887	38,532	40,304	32,318	22,668
5. Profit after taxation	30,387	25,756	22,304	17,818	12,868
6. Dividends	18,038	15,424	13,176	10,541	6,149
7. Earnings per share*	33.2k	28.1k	24.4k	19.5k	14.1k
8. Dividends per share*	19.7k	16.9k	14.4k	11.5k	6.7k

**Based on issued share capital at 31st December, 1982*

Five Year Financial Summary

	1982 N	1981 N	1980 N	1979 N	1978 N
Fixed assets	14,429,505	10,326,384	7,504,831	8,469,783	9,287,745
Modernisation expenses	3,372,655	1,519,421	299,871	–	–
Net current assets/ (liabilities)	(11,016,286)	(778,033)	2,483,736	(1,223,489)	(2,417,891)
	6,785,874	11,067,772	10,288,438	7,246,294	6,869,854
Ordinary share capital	4,560,403	4,560,403	4,560,403	4,560,403	3,800,336
Preference share capital	2,000,000	2,000,000	2,000,000	–	–
Capital reserve	–	–	–	–	59,732
Revenue reserve/ (deficit)	(8,678,498)	(3,686,748)	898,035	1,710,891	2,409,786
Debenture stock	5,119,185	6,011,112	2,400,000	–	–
Term loans	–	–	430,000	975,000	600,000
Bills Payable	3,784,784	2,183,005	–	–	–
	6,785,874	11,067,772	10,288,438	7,246,294	6,869,854
Sales	16,674,854	17,431,470	17,359,356	15,396,689	12,612,777
Operating profit/(loss)	(4,991,750)	(4,584,783)	(812,856)	1,440	(1,911,766)
Taxation	–	–	–	–	1,160,917
Net profit/(loss)	(4,991,750)	(4,584,783)	(812,856)	1,440	(750,849)
Balance brought forward	(3,685,748)	898,035	1,710,891	2,409,786	692,148
Transfer from exchange account	–	–	–	–	42,097
Transfer from debenture redemption reserve	–	–	–	–	816,666
Unpaid dividend waived	–	–	–	–	1,609,724
Amount capitalised	–	–	–	(700,335)	–
	(8,678,498)	(3,686,748)	898,035	1,710,891	2,409,786