Quest Journals
Journal of Research in Humanities and Social Science
Volume 9 ~ Issue 5 (2021)pp: 09-16
ISSN(Online):2321-9467
www.questjournals.org

Research Paper

Human Resource Accounting and Financial Performance of Micro Finance Banks in Nigeria

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***ABSTRACT**: This study explored link between human resource accounting and financial performance of microfinance banks in Nigeria. Ex post facto research design was used and data for analysis obtained from the published financial statements of the only two listed microfinance banks in Nigeria Stock Exchange covering a period of 7 years (2011 to 2017) and 9 years (2011 to 2019) respectively. The first 7 years took into cognizance the data from both banks, whereas the additional 2 years making up to 9 years captured only data from Nigeria Police Force Microfinance Bank (NPFMFB) due to delisting of Fortis Microfinance Bank in 2018. The Simple linear regression analysis method was used to analyze the data generated. Findings from the study for both microfinance banks reveal that personnel cost have significant effect on both net profit margin and return on equity with only return on assets having insignificant relationship. Further findings using only NPFMFB extended to 2019 indicate that personnel cost has no significant effect on all the explained variables. The study recommends, among other things, that relevant accounting and legislative bodies should develop a uniform approach for the measurement and reporting of human resources and that accounting policies should be developed for the amortization of investments made in human resources of Microfinance banks and other organizations alike.*

***KEYWORDS:** Personnel cost, Net profit margin, Return on assets, Return on equity*

Received 26 April, 2021; Revised: 08 May, 2021; Accepted 10 May, 2021 *© The author(s) 2021. Published with open access at www.questjournals.org*

I. INTRODUCTION

Human resource accounting involves accounting for expenditure relating to human beings in an organization. All organizational resources must be assembled together in other to achieve organizational set goals and objectives. The assembling begins and ends with human beings. The term resources refer to all manner of assets including human, material and monetary elements that is used in the production of goods and services to satisfy organizational needs. It is a widely accepted fact that the success of any organization, business or otherwise, to a great extent, depends upon the quality, caliber and character of the people working in it. An organization having vast physical resources, with latest technology as the case with the banking sector, may find itself in the midst of severe financial crisis if it does not have right people to manage and conduct its affairs. Irrespective of how technologically advanced a company may be, the value of human resources has in no way diminished. The inability of accountants and accounting policy formulators in formulating and evolving a generally accepted system of valuing and recording this important asset known and referred to as human resources is still of great concern.

In the past years, the concept of human resource accounting has grown rapidly because of the role it plays in determining an entity's total value. Human resource cost accounting has great potential in providing valid exposure of the company's performance in that irrespective of the volume of current and non-current assets invested, without human management becomes a vehicle without engine. Akintoye, 2012 described

human resource accounting as accounting for human asset related expenditure against traditional accounting which merely expenses such costs and reduce profits which to our mind sub optimize financial reporting. It is accounting for investment on organizational personnel for the purpose of maximizing shareholders value and the achievement of the overall goals of the organization.

The assessment of corporate performance may not be conclusive without the consideration of the invaluable impact of human beings. In contemporary business environment, human capital is regarded as a key source of competitive advantage. With the advent of knowledge – based economy, companies view their employees as an important resource and invest heavily in them. Microfinance institutions are not exception to this. Information on human capital and its development is important to financial analysts and fund managers, who need to assess the future direction, potential and values of companies. The difference between Human Capital Management (HCM) and Human Resource Management (HRM) is that the former treats people as assets while the latter treats people as costs (Roger and Wright, 2014). Agbiogwu, Ihendinihu and Azubike (2016) added that the discovery that human behavior is a significant factor affecting business efficiency is an important land-mark. It is regrettable that the current accounting reforms under the auspices of IFRS did not reposition the treatment of people which is seen as the greatest of all assets in the statement of financial position of corporate entities.

Statement of the Problem

Every organization, whether in the production or services industry expressively record their human capital as the most valuable asset. The role of people begins to yield meaningful result even when procurement of machine and other productive equipment is yet to be done. The acquisition of right people sets the pace for the acquisition of right machine and the right use of the machine to achieve good result in terms of organizational performance. Irrespective of the volume of capital mix, level of current and non-current assets in an entity's disposal, without human efforts known as human capital (resources) production or effective service delivery will not take place yet this valuable asset cannot trace its root to the financial position statement of companies. The idea of human resource accounting has been over emphasized in the time past even in our contemporary accounting literature, yet it still lacks general acceptability regarding capitalization. Many researchers have researched and recommended the recognition of the accounting of investments made on organizational personnel otherwise known as human capital/resources in the statement of financial position of companies and with all the reforms made in accounting profession through IFRS such prayer is yet to be implemented.

Financial institutions are seen as one that invests heavily on human resources. Investment in human resource involve costs incurred by an organization to recruit, select, hire, train, retrain and develop their workforce for effective operational performance. However, these banks' investment on human asset is not reflected in its statement of financial position rather, it is expensed in the statement of comprehensive income for the current period to reduce income and invariably the value of the business. The problem of this rests on how organizations especially microfinance banks quantifies, classifies and presents sound financial report on the investments on human resources employed in the organization. Expensing human costs instead of capitalization is seen by various scholars as a distortion of the financial statements presented by the shareholders. To this therefore, the study seek to establish specifically the effect of personnel cost on net profit margin, return on asset and return on equity of listed microfinance banks in Nigeria.

II. REVIEW OF RELATED LITERATURE

Conceptual Framework

The concept of considering human beings as vital asset is not a new phenomenon. The first attempt to value the human beings in monetary terms was made by Sir William Petty as early as 1691 (Maharshi Dayanand University, 2004). Human resource accounting came into being following various studies conducted by different experts in the areas of accounting and finance regarding investment of human activities in an organization. This led to the body of knowledge known as "Human Resource Accounting". This branch of accounting is advocating for the recognition of human capital as a cost to be capitalized as against the traditional practice of treating expenditure on human capital as an immediate charge against periods' revenue. Proponents of human resource accounting are of the view that costs incurred on any asset should be capitalized when it is incurred so as to yield future benefits measurable in terms of money irrespective of whether it incurred on human assets or real assets.

However, the real work on the subject of human resource accounting gained relevance from 1960, when behavioral scientists vehemently criticized, the conventional accounting practice of not valuing the human resources along with other material resources. Accountants and economists all over the world became conscious of the fact that the appropriate methodology and procedures have to be developed for finding the cost and value of the people in the organization. Human resources accounting is the systematic accumulation of information

about changes in investments made in human resources and reporting back that information to operating managers to assist them to make better decisions than they would have been able to make without such additional information (Woodfruff, 2015). Human resource accounting according to American Accounting Association (1973) is the process of identifying and measuring data concerning human resource and communicating same to accounting information users.

Concept of Performance

The term performance is often used to describe how well a thing, an establishment or entity has done over time. Every sphere of live has presumed performance indices. To an agriculturist, performance is measured in terms of volume of yield in output whereas in profit making organizations, profits, customer turnover, and sales volume may provide an index of performance. Non-profit entities may use number of membership and service to society such as scholarships, provision of social amenities, among others as measures of performance. For incorporated entities performance measures such as profit after tax, earnings per share, share value, share price, return on asset, return on equity, etc are common. (Fry and Smith, 1987) posit that accounting related measures have the advantage of being comparable both to industry norms and to historical performance.

Again, every organization irrespective of sector wants to perform effectively and efficiently. Performance in the words of Bikker (2010) means" the contribution financial institutions make to the common wealth, on behalf of consumers and businesses". He added that banks will be mainly interested in whether financial products are not too expensive and whether the quality is sufficient. To stockholders, performance is synonymous to profitability and they view it in terms of the profits made on their behalf, whether or not adjusted for risks taken.

Competition, concentration, efficiency, productivity and profitability according to Bikker (2010) are banks' performance expression style. They argue that the key reason banks are seen as special, given their pivotal role in providing credit to enterprises is because shareholders of a bank are entitled to the bank profits and as a result, their interest will always be to maximize these profits. They can achieve this by maximizing revenue and minimizing costs. This implies that the performance of an entity is what the entity hopes to achieve for being in business which also stand as a point of attraction to stakeholders and other prospective investors.

Valuation of Human Resources

Different methods have been advanced for valuing human resources. Among them include the following:

Historical Cost Approach

This approach was developed by Brummet, Flamholtz and Pyle. It assumes that actual cost incurred on recruitment, selection, contracting, training and development of organization's human asset ought to be capitalized and written off against its expected useful life. Investment in human resources should be treated in the same manner as any other physical asset. This is because any expenditure incurred to appreciate the value of human resources in terms of increase in wages and salary, fresh recruitment, training and development etc, has cause and effect reaction on human asset values in terms of effective performance just it would be the case of physical asset. Amortization of the human assets should also be done in a similar manner as physical asset. In case the human asset expires before the end of the expected service life period, the whole of the amount not written off is charged against revenue of the year in which such event takes place. In case the useful life is recognized to be longer than the original expected, amortization is appropriately rescheduled.

Replacement Cost Approach

This approach was developed by Flamholtz Eric G. and Rensis Likert. The approach values human resources at their present replacement cost. Hence, HRC of an organization are to be valued on the basis of the assumption of what it would cost the firm, if the existing human resources are required to be replaced with others of equivalent talents and experience. The approach is similar to the historical cost approach mentioned above except that it allows for changes in the cost for acquiring, training and developing the employees in place of taking their historical cost for capitalization.

Opportunity Cost Approach

The proponents of this approach are Hekimian and Jones. Here, the value of an employee is determined according to his alternative use. In case an employee has no alternative use, no value will be placed on him. This approach specifically excludes those types of staff who can be hired readily from outside. The approach suggests competitive bidding process for the scarce employees in an organization.

Theoretical framework

Human capital theory says that useful knowledge and skills gained from education and training raises workers' productivity (Becker, 1964). Rising worker's productivity further translate to corporate productivity. Human capital cannot be mentioned without potential reference to accumulated wealth of knowledge acquired through education whether formal education or informal education. People spend years and money just to acquire knowledge that will be used for organizational benefits. Also resource based theory as put forward by Wermerfelt (1984) identified human resources as that which cannot be mimicked by another and as a result giving them a competitive advantage over them. Sheun (1997) equates resources as firm-specific asset that is non-transferable and extremely difficult to be reproduced by others.

Empirical Review

Omodero and Ihendinihu (2017) evidenced human resource accounting and financial performance from selected listed firms on the Nigerian stock exchange. Cross sectional data drawn from NSE Website and Annual reports published by the selected Firms were used for analysis. The regression results revealed that PBC has significant and positive impact on the PAT, while there is a negative impact on the Net Asset.

Agbiogwu, Ihendinihu and Azubike (2016) researched on effect of human resource cost on profitability of banks in Nigeria. Linear regression method of analysis was used to analyze the data. The study found staff cost to have significant effect on earnings per share, net profit margin and return on capital employed of banks.

Ikpefan, Kazeem and Taiwo (2016) investigated human capital accounting and performance of Microfinance banks (MFB) in Nigeria. The study made use of content analysis from financial statement of microfinance banks in Nigeria. Findings from the analysis revealed a significant relationship between human resource accounting and performance of microfinance banks.

Prince, Lucky and Kingsley (2013) examined human resource accounting and its impact on organizational performance using of cross-sectional data drawn from NSE. The result of the regression analysis show that human capital and intangible assets has positive but insignificant effect on organizational performance

Relationship between intellectual capital and financial performance of Nigerian banking sector was carried out by Ekwe (2012). Using multiple regression analysis, the study found a positive and significant relationship between value added intellectual capital and return on asset of banks in Nigeria.

Also Micah, Offurum and Ihendinihu (2012) studied Firms financial performance and human resource accounting disclosure in Nigeria revealed no disclosure of human resource accounting on the financial statement of firms in Nigeria.

Rehma, Rehman, Rehuman and Zaiad (2011) carried out a study on intellectual capital and its implication on corporate performance evidenced from Modaraba sector of Pakistan. Findings from the study show that there is a significant relationship between capita efficiency and return on capital employed as well as earnings per share.

III. METHODOOGY

Research Design

This research adopted ex-post facto research design. Ex post facto research literally means from what is done afterwards. Ex post facto research seeks to reveal possible relationships by observing an existing condition or state of affairs and searching back in time for plausible contributory factors (Kerlinger and Rint, 1986).

Population of the Study

The population of the study constitutes the two (2) Microfinance banks listed in the Nigeria Stock Exchange.

Sample Size Determination

The study maintained the same population size of two (2) as the sample size. This approach is adopted since the population is too small.

Method of Data Collection

The data for this study was sourced through the annual reports and accounts of NPF Microfinance Bank and Fortis Microfinance Bank being the two microfinance banks listed in the Nigeria Stock Exchange covering a period of 9 years (2011 – 2019). The annual report was used to ascertain the values of human resource accounting proxy by personnel costs, net profit margin, return on assets and return on equity of the listed microfinance banks in Nigeria for the periods under study. The justification for the six years is to cover the periods within which the banks were listed.

Method of Data Analysis

In order to get a justified and critical analysis of the research, simple regression analysis was used. Simple regression analysis shows the degree of relationship between one dependent variable and one independent variable. Data for analysis was collected from NPF Microfinance Bank and Fortis Microfinance Bank from 2011 to 2019. However, Fortis Microfinance Bank was delisted from the Nigerian Stock Exchange in 2018 making them unable to publish their annual reports for the 2018 and 2019 financial years. In order to make up

for this gap, data from both companies were gathered up to 2017 and analyzed followed with another analysis with data covering 2011 to 2019 from NPF Microfinance Bank only. The data analysis was aided through the use of Econometrics of Science (E-View v.9) software.

Model Specification

This study made use of econometric technique of Ordinary Least Square (OLS) in form of Simple Linear Regressions. The econometric models for the study are as follows:

NPM = f(PC) ....(1)

ROA = f(PC) ....(2)

ROE = f(PC) ....(3)

The mathematical models for the study are as follows:

$NPM = \beta_o + \beta_1 PC + e_i$... (4)

$ROA = \beta_o + \beta_1 PC + e_i$…………………………………………………(5)

$ROE = \beta_o + \beta_1 PC + e_i$ ………………………………………………….(6)

Where;

NPM = Net Profit Margin

ROA = Return onAsset

ROE = Return on Equity

PC = Personnel Cost

Decision Rule

Accept null hypotheses when the chance of error (Probability Value) of the regression result is greater than 0.05, otherwise, reject the null hypothesis.

IV. DATA PRESENTATION, RESULT AND ANALYSIS

The generated data that produced the analyzed result are shown in tables below:

Descriptive Result for Combined Companies (2011-2017)

	LOGPC	NPM*1	ROA*2	ROE*3
Min	**5.61**	**3.84**	**0.47**	**1.79**
Max	**8.68**	**42.03**	**8.80**	**32.13**
Mean	**7.24**	**23.80**	**4.97**	**15.30**
STD	**1.41**	**9.53**	**1.95**	**8.74**
N	**14**	**14**	**14**	**14**
R^2		**0.28**	**0.16**	**0.29**
R^A		**0.22**	**0.09**	**0.23**
DW		**1.8**	**1.8**	**1.22**
Beta		**-3.55**	**-0.55**	**3.32**
Prob.		**0.05**	**0.16**	**0.004**

Source: E-view v.9

Test of Hypothesis and Discussion of Findings

HO_1: *Personnel cost has no significant effect on net profit margin of listed microfinance banks in Nigeria.*

The regression results for hypothesis one shows the degree of association and relationship between personnel cost and net profit margin of the listed microfinance banks in Nigeria. The correlation coefficient (R-Square) is a measure of association or relationship between the dependent variable and the independent variable. The R^2 of 0.28 reveals a fair positive association or causal relationship between personnel cost and net profit margin of the listed banks at 28%. The Adjusted R-Square of 0.22 shows that 22% of the sample variation in the dependent variable of the company's net profit margin is explained or caused by the explanatory variable (personnel cost) while the remaining 78.% is unexplained. This remaining 78% could be caused by other factors or variables not built into the model. Although the value of R-Square and Adjusted R-Square says same thing about a given regression result but Adjusted R-Square is more predictive in establishing how fitted the mode is. The Dublin Watson value of 2 shows no presence of autocorrelation.

The relationship between personnel cost and net profit margin took an inverse shape. This is shown by the *beta* value of -3.55 showing that units change in personnel cost can cause net profit margin to change negatively by 3.55. The regression chance of error (Probability value) of 0.05 is less than and equal to the alpha threshold at 0.05. This reveals a significant result since it is within the critical region. This implies that we do not accept HO_1 and therefore conclude that personnel cost has significant effect on net profit margin of listed microfinance banks in Nigeria.

HO_2: *Personnel cost has no significant effect on return on assets of listed microfinance banks in Nigeria.*

The regression results for hypothesis one shows the degree of association and relationship between personnel cost and return on asset of the listed microfinance banks in Nigeria. The R^2 of 0.16 reveals a fair

positive association or causal relationship between personnel cost and return on asset of the listed banks at 16%. The Adjusted R-Square of 0.09 shows that 9% of the sample variation in the dependent variable of the company's net profit margin is explained or caused by the explanatory variable (personnel cost) while the remaining 91% is unexplained. This remaining 91% could be caused by other factors or variables not built into the model. The Dublin Watson value of 2 shows no presence of autocorrelation.

The *beta* value of -0.55 shows that a unit change in personnel cost can cause return on asset to change negatively by 0.55. The regression chance of error (Probability value) of 0.16 is greater than the alpha threshold at 0.05. This reveals a non-significant result since it is above the critical region. This implies that we do not reject HO_2 and therefore conclude that personnel cost has no significant effect on return on asset of listed microfinance banks in Nigeria.

HO_3: *Personnel cost has no significant effect on return on equity of listed microfinance banks in Nigeria.*

The regression results for hypothesis three shows the degree of association and relationship between personnel cost and return on equity of the listed microfinance banks in Nigeria. The R^2 of 0.29 shows that 29% of the sample variation in the dependent variable of the company's return on equity is explained or caused by the explanatory variable (personnel cost) while the remaining 71% is unexplained. This remaining 71% could be caused by other factors or variables not built into the model. It was stated earlier that the value of R-Square and Adjusted R-Square says same thing about a given regression result but Adjusted R-Square is more predictive in establishing how fitted the model is and the more the value of Adjusted R-Square, the more fitted the model is. The Adjusted R-Square of 0.23 shows that personnel cost is explained by 23% of return on asset which is a considerable fit. The Dublin Watson value of 1.22 shows a positive autocorrelation.

The *beta* value of 3.32 shows that a unit change in personnel cost can cause return on equity to change positively by 3.32. The regression chance of error (Probability value) of 0.004 which is less than the alpha threshold at 0.05 reveals significant result. This implies that we do not accept the null hypothesis and therefore conclude that personnel cost has significant effect on return on equity of listed microfinance banks in Nigeria.

Result for NPF Microfinance Bank (2011-2019)

N	LOGPC	NPM*1	ROA*2	ROE*3
N	**9**	**9**	**9**	**9**
R^2		**0.13**	**0.02**	**0.01**
R^A		**0.002**	**-0.13**	**-0.13**
DW		**2.0**	**2.27**	**2.68**
Beta		**-17.98**	**-1.23**	**2.09**
Prob.		**0.35**	**0.78**	**0.78**

The table above show that personnel cost has no significant relationship with net profit margin, return on asset and return on equity. For all the models, the coefficient of determination (R- Squared) and the Adjusted R- Squared are very low and some having negative Adj.R^2 showing that the models are not well fitted. The possible reason for this is due to the limited number of observations as we observed using only Nigerian Police Force Microfinance Bank for 9 years period.

V. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

Based on the objectives of the study, data analysis, and discussion of findings the following findings were summarized that:

1. Personnel cost has no significant effect on net profit margin of listed MFBs in Nigeria
2. Personnel cost has no significant effect on return on assets of listed MFBs in Nigeria
3. Personnel cost has positive significant effect on return on equity of listed MFBs Nigeria.

Conclusion

The study has revealed that without human resources, every other resource at the disposal of organizations cannot be operationally utilized. Organization's human resource organization is the propeller of organizational productivity and performance. However, to ensure growth of any organization, the efficiency of people must be augmented in the right perspective. Quality human capital contributes significantly to the overall performance of Microfinance banks in Nigeria.

Human resource accounting came into context as a result of failure of professional and legislative accounting bodies to treat it as an asset like any other asset irrespective of its recognition in the directors' report as being the most valuable asset of all assets at the disposal of the organization. Human resource accounting proposes without prejudice the measurement and reporting of the cost and value of people in the statement of financial position rather the statement of comprehensive income. Annually, the values of non-current assets are being depreciated or accorded values known as capital allowance as the case may be for the wear and tear of

such assets without a corresponding amount of money being apportioned for human beings as their productive capacity appreciates.

Recommendations

Based on the findings and conclusion of the study, the following recommendations were made:

1. Relevant accounting and legislative bodies should develop a uniform approach for the measurement and reporting of Human Resources.
2. Expenditure on human resources should be perceived as investment cost which should be capitalized in the statement of financial position rather than treating it as operating cost and expensed through the statement of comprehensive income.
3. Companies should actually treat their employees with utmost care and considerable motivation irrespective of level as they all aim at achieving corporate goal and productivity of the company.

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APENDIX

1. RAW DATA AS EXTRACTED FROM ANNUAL REPORT (combined companies)

Name		PBT	GE	TA	PC	PAT	EQUITY
	Years	=N=	=N=	=N=	=N=	=N=	=N=
NPFMFB	2011	174,317	1,236,477	6,542,627	445,032	391,320	3,660,774
	2012	685,640	1,631,283	7,790,984	765,463	103,717	3,690,841
	2013	500,380	1,292,037	7,937,407	407,463	475,837	3,916,893
	2014	617,507	2,134,692	10,865,189	875,108	477,816	4,079,893
	2015	688,899	2,592,694	13,667,609	978,277	514,598	4,251,493
	2016	803,440	2,925,229	12,361,872	1,008,055	554,903	4,463,398
	2017	819,819	3,654,875	15,952,341	1,306,773	631,890	4,752,289
FORTISMFB	2011	253,108,868	1,157,208,588	4,948,703,998	283,367,625	230,707,260	873,646,306
	2012	307,450,298	1,922,468,559	7,782,397,384	400,664,697	158,485,997	1,032,132,302
	2013	634,674,334	2,811,543,629	12,714,885,061	396,198,282	382,903,158	1,415,035,487
	2014	1,070,501,010	4,175,058,251	16,585,960,688	376,986,374	674,512,746	2,099,473,431

	2015	882,521,116	4,352,821,033	19,937,673,246	459,106,458	583,703,900	2,683,177,331
	2016	832,605,298	3,649,315,816	20,878,651,920	478,052,779	586,255,583	4,054,932,916
	2017	105,305,589	2,740,880,778	22,172,010,743	370,105,101	73,713,912	4,128,646,778

2. COMPUTED VARIABLE DATA (combined Companies)

NPM*1	ROA*2	ROE*3	LogPC
14.0978765	2.66432734	10.6895427	5.6483912
42.0307206	8.8004288	2.810118344	5.8839242
38.7279931	6.30407386	12.14832777	5.6100882
28.9272176	5.68335259	11.71148361	5.9420617
26.5707793	5.04037685	12.10393619	5.9904618
27.4658839	6.49933926	12.43229934	6.0034842
22.4308355	5.13917672	13.29653984	6.1162002
21.8723634	5.11464957	26.40739833	8.4523502
15.9924747	3.95058595	15.35520172	8.6027811
22.5738746	4.9915853	27.05961522	8.5979126
25.6403857	6.4542599	32.1277105	8.5763257
20.2746933	4.42639974	21.75420511	8.6619134
22.8153807	3.98783073	14.45783679	8.6794758
3.84203464	0.47494830	1.78542549	8.5683251

3. COMPUTED VARIABLE DATA (NPFMB only)

YEAR	COMPANY	NPM*1	ROA*2	ROE*3	LogPC
2011	NPFMB	14.09788	2.664327	10.68954	5.648391
2012	NPFMB	42.03072	8.800429	2.810118	5.883924
2013	NPFMB	38.72799	6.304074	12.14833	5.610088
2014	NPFMB	28.92722	5.683353	11.71148	5.942062
2015	NPFMB	26.57078	5.040377	12.10394	5.990462
2016	NPFMB	27.46588	6.499339	12.4323	6.003484
2017	NPFMB	22.43084	5.139177	13.29654	6.1162
2018	NPFMB	7.269053	1.631789	4.212744	6.127712
2019	NPFMB	22.66276	5.147118	14.94809	6.259653

*PBT= PROFIT BEFORE TAX
*GE= GROSS EARNINGS
*TA= TOTAL ASSETS
*PC= PERSONNEL COST
*PAT= PROFIT AFTER TAX