

# Determinants of Retained Earnings in Profitable Petroleum Companies in India: A Study of Petroleum Sector

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**Abstract** - In this paper an attempt has been made to identify the important determinants of retained earnings in profitable petroleum companies in petroleum sector of India and which have impact on the retention of earnings of petroleum companies under study. Multiple linear regression is used to identify the determinants of retained earnings for a period of sixteen years. Also the importance of retained earnings as a source of finance for petroleum sector companies is also studied in the paper.

**Key words:** Retained Earnings, PAT, DP, RES, CR, DER, INVS, INV, DEP, CF, CT

## I. INTRODUCTION

Retained earnings refer to that part of corporate's net profit after tax which is not distributed to the shareholders as dividend but is reinvested in the business. Retained earnings therefore, are the sum of a company's profits after dividend payments, since the company's inception. They are also called earned surplus, retained capital or accumulated earnings. Retained earnings are an important source of internal or self-financing by a company. The savings generated internally by a company in the form of retained earnings are ploughed back into the company for diversification of its business. Retention of earnings by companies reduces their dependence on funds from external sources in order to finance their regular business needs.

The need for retained earnings arises for the purpose of replacement of old assets which have become obsolete, for expansion of growth and business, for contributing towards the fixed as well as working capital needs of companies, for improving working efficiency of plants and equipment's, to make companies self-dependent of finance from external sources, for redemption of loans and debentures.

Retained earnings is favorable for companies as issuing of new capital is inconvenient as well as involve floatation costs also if company raises debt, the financial obligation and risk will increase. Retained earnings not only give rise to growth in the value of the firm but also appreciate the value of its shares.

## II. LITERATURE REVIEW

The review of studies which studied the subject matter of retained earnings is presented under this heading.

Rao (1977) analysed the financing practices of corporate sector from 1972 – 1975 using RBI statistics. His analysis showed that corporate gross saving was diverted to investment in fixed assets and a part of internal savings was used to finance inventory holdings.

Divatia and Shanker (1979) examined the capital formation and its financing by the public and private limited companies. The result of their study revealed that internal sources played a dominant role in financing of capital formation for the period in between 1962 to 1976.

Rao and Vivekananda (1980) covered the period from 1950-51 to 1962-63, 1960-61 to 1970-71 and 1970-71 to 1974-75 to study the determinant of corporate savings. Their study was based on the aggregate manufacturing sector data of Reserve Bank of India. They concluded that the most important determinant of corporate savings was corporate income. In addition, they found that savings were positively related to investment demand and liquidity position.

Myers and Majluf (1984) concluded that investment decisions made by managers were subject to the pecking order of financing choices available. Managers preferred retained earnings to debt and debt to equity floatation to finance the available projects.

Mayer (1990) in his study found that two third on the average of investment financing in developed countries like USA, UK, Japan, Germany, France, Italy, Canada and Finland are mobilized through internal financing.

Donaldson (1961) in his study viewed and established the importance of retained earnings as the funds over which management has complete and independent control.

Mittal (1992) examined the determinants of retained earnings covering a period of ten years (1980 -1990) and the sample size consisted of 23 large textile public companies of the public sector. The study concluded that retained earnings decision was a residual one this was because of the variation in dividends payments which was very low in comparison to the variations in retained earnings in large sized textile companies. Current ratio had the most significant effect on retention ratio whereas debt equity ratio and corporate tax rate had a depressing effect

on retention ratio. The desire to hold more inventories and to avoid interest burden not significantly induced the managements to retain more profits.

Karak (1993) concluded that management in India, as a rule has recently followed conservative policies with regard to dividends. There was an increasing tendency on their part to finance the expansion out of internal resources as far as possible.

Athey and Laumas (1994) examined the importance of accelerator, internal funds and depreciation for investment by manufacturing firms in India covering a period from 1978 to 1986. Results of the study indicated that internal funds and depreciation had a significant explanatory power in a sales accelerator model of investment and that there existed heterogeneity among firms in the link between internal funds and investment. In particular internal funds were relatively more important for large firms and firms that produced luxury goods.

Bartram (2000) found that the availability of internal funds or retained earnings guarantee the realization of profitable investment projects and at the same time avoid higher capital cost.

Kumar (2001) examined the financing pattern in India for the period from 1956 to 1999 using RBI statistics, results of his study showed that internal funds were the major source of funds in the 1950s.

Salvary (2004) attempted to determine whether allocation of regional financial capital flow was efficient as suggested by the neo classical model, specifically the study attempted to ascertain whether the corporate retained earnings model was a good predictor of the regional flow of financial capital. The results of the study suggested that the corporate retained earnings model had an impact on the predictive ability of the neo classical model, that is regional flows of financial capital were influenced in part by corporate retained earnings.

Saggar S (2005) analyzed the financing and investment pattern of non-financial, non-government, public limited firms over the period 1971-72 to 1999-2000 of majority industry groups. On the source side, the financing pattern of Indian firms was found to be debt based but their share of internal sources increased markedly in the latter half of the 1990s which had an impact on share prices.

RBI (Reserve Bank of India, 2005) study observed that the corporate sector in India has mobilised a large share of resources from internal sources which accounted for 60.7% during 2000-01 to 2004-05.

Mahakud (2005) analyzed the trends and the determinants of retained earnings. For trends in the retained earnings, the study was conducted on public limited companies, private limited companies and foreign companies in India during the period 1966-67 to 2001-02. The determinants of corporate retained earnings were studied using panel data pertaining to 500 companies listed in S&P CNX 500 index

for the period 1996-97 to 2003-04. Results of the study found that the corporate retained earnings in India were not increased much and remained at a low level throughout the period of study. As regards the determinants of retained earnings it was concluded that profit after tax, investment opportunities, availability of external funds, cost of borrowings, dividend policy and the shareholding patterns had been the major determinants of retained earnings.

Kaushik (2007) examined the factors that acted as determinants of retained earnings with a comparative study of domestic and multinational companies. Sample size consisted of 100 companies (50 domestic and 50 MNCs); the study covered a period of 15 years i.e. from 1990 to 2004. The study concluded that there existed a significant difference between domestic and multinational companies with regard to the manner in which retained earnings were managed and also the factors that determined retained earnings.

Salvary (2007) studied the problem of under investment, risk management and corporate earnings retention for a period from 1983 to 1990 consisting of 45 firms for purpose of study. Study concluded that risk management was viewed as the management of firm's operations activities and financing practices to produce a portfolio of risks which resulted in average pay off. The two most common forms of risk mitigation i.e. insurance and hedging does not addressed the under investment problem, corporate earnings retention by means of dividend policy provided a firm with an important means of risk mitigation.

Kamat (2008) investigated the trends in dividends across 20 industries to know how the private corporate sector of India appropriated its profits over period from 1961 to 2007. He also examined whether internal funds were a significant source of finance and the dynamics of relation between dividends relative to earnings across type of companies and industries. Results of the study showed that Indian corporate sector paid relatively more dividends, the paying of cash dividends decreased with shareholder concentration and regulated companies paid relatively larger dividends, dividend payouts for all type of companies declined after liberalization period thus, indicating a greater choice of internal financing by means of retained earnings.

Seppa (2008) showed that Estonian non-financial companies followed pecking order theory of financial hierarchy while making capital structure choices as they preferred internal funds to external funds. The results provided no or very weak supports that the tradeoff theory was followed in the long run.

Beena P L (2011) analysed the sources of financing pattern Indian private corporate sector for the period from 1999 to 2009. Result of the study found an increasing trend in internal finance since year 2000 and retained earnings contributed a major share of finance during the period of study.

As far as review of earlier studies on determinants of retained earnings, it is seen that a very few studies attempted to identify the determinants of retained earnings in India.

### III. RESEARCH METHODOLOGY

This part explains the scope, objectives, period of study, sample size, database, statistical tool, and development and testing of hypotheses for the study.

#### Scope

The paper aims to identify the determinants of retained earnings in profitable petroleum companies of petroleum sector in India for a time period of sixteen years i.e. 1995-96 – 2010-11.

#### Objectives

The paper aims is to meet the following objectives:

1. To identify the determinants of retained earnings in profitable petroleum companies of petroleum sector in India.
2. To study the importance of retained earnings as a source of finance for petroleum companies.

#### Source of Data

The paper is based on the secondary data collected from the CMIE (Center for Monitoring of Indian Economy) Prowess Database.

#### Sample Selection and Period of Study

The sample size consists of 24 profitable petroleum companies. The period of study ranges from 1995-96 to 2010-11, i.e. a period of 16 years. The technique of selecting the sample of number of companies for selected petroleum sector companies is judgmental sampling. The number of sample companies in is given below as obtained from the CMIE Prowess database.

#### List of Sample Companies in Selected Sector

Sr. No.	Sector	No. of Companies
1-	Petroleum	24
<b>Total</b>		<b>24</b>

The number of sample companies selected for textile sector is based on the following criteria.

- a) The necessary financial data required for study is available throughout the period of study i.e. from 1995-96 to 2010-11.
- b) The number of sample companies selected for petroleum sectors are profitable during the period of study.
- c) The companies are listed on BSE (Bombay Stock Exchange).
- d) The data required for study is available with the CMIE Prowess database (Centre for Monitoring of Indian Economy).

### IV. TECHNIQUE OF DATA ANALYSIS

The data collected relating to the sample petroleum companies for petroleum sector is analyzed using the statistical technique of multiple linear regression using SPSS version 19 (Statistical Package of Social Sciences). The technique of multiple linear regression has been applied primarily to minimize the problem of multi collinearity. This technique of multivariate analysis is used because it is the most appropriate tool for evaluating the individual and combined effect of a set of independent variables on dependent variable.

The significance of the coefficient of various explanatory variables is tested at 99% and 95% level of significance by computing beta ( $\beta$ ) and t values.

#### Variables of the Study

A large number of variables, such as profit after tax, reserves, investments, depreciation etc affects or impacts the retained earnings of companies or retention of their earnings. All the possible variables that are believed to impact retained earnings have been incorporated in the model. Retained Earnings (RE) has been considered as the dependent variable and assuming a linear relationship, the following variables have been identified as independent variables. To be specific, the following have been considered as independent variable for the present paper.

- **Profit after Tax (PAT):** Profit after Tax is the net profit earned by the companies after deducting all expenses like interest, depreciation, taxes. It is the PAT that is divided between dividend and retained earnings.
- **Dividend Paid (DP):** Dividend is the portion of the profit after tax which is distributed to the shareholders. Dividend payment though increases the market price of share of companies but payment of dividends reduces the amount of after tax profits from which the companies can retain earnings.
- **Reserves (RES):** Creation of reserves enables companies to overcome difficult financial periods in future as such, they retain from profits to have adequate level of reserves to meet different financial obligations. Reserves of the organization also have an effect on the retention policy.
- **Current Ratio (CR):** Current ratio is the ratio of current assets to current liabilities, this ratio denotes how much liquid or liquidity companies have to meet their financial obligations within short period of time usually one year.
- **Debt Equity Ratio (DER):** Debt Equity Ratio is worked out to ascertain the soundness of the long term financial policies of the companies. Debt is considered to be a cheap source of finance as tax liability goes down with the payment of interest. In order to take full advantage of tax shield, the equity base needs to be strengthened by retaining the profits.



- **Investment (INVS):** Investments by companies also affect the retained earnings decision of companies and companies with high increase in investment in fixed assets in the current year are likely to retain more.
- **Inventory (INV):** Inventory consists of raw materials, finished goods, etc. To maintain sufficient level of inventories company's needs funds as such retained earnings of companies is internal and cheap source of funds which can be used in maintaining an adequate level of inventories for companies.
- **Depreciation (DEP):** Depreciation refers to the gradual decrease in the value of assets due to wear and tear, use and passage of time. The purpose of depreciation is to retain out of profits, funds for replacement of assets. Depreciation is likely to affect the retention behaviour of companies. Depreciation being a charge on profit that does not result in the outflow of cash is also likely to affect the retention behavior of companies, Rao & Vivekananda (1980). The higher the amount of depreciation, the lower is likely to be the retained earnings. Thus, it has been also considered to be an independent variable.
- **Cash Flows (CF):** Cash Flows refers to the inflows and outflows of cash by companies by way of receipts and payments, when companies discharge their financial obligations towards its creditors, financial institutions, banks, payment of dividends etc there is an outflow of cash of companies which reduces its cash position similarly when companies generate cash by way of income, sales, debtors etc it increases its cash position. Cash Flow variable is derived from earnings available for common shareholders plus depreciation expense of the current year. Therefore, it has been considered as an independent variable.
- **Corporate Tax (CT):** Corporate Tax is the tax which is paid by companies on their total income. Corporate Tax being a charge on profit and loss account, it is considered that the more outflow on account of it will result in less retained earnings, Mittal (1992). Thus it has been considered as an independent variable.

Thus, the general model that has been considered for determination of relative role of each independent variable is:

$$RE = PAT + DP + RF + CR + DER + INVS + INV + DEP + CF + CT$$

This model has been run using multiple linear regression in SPSS Version 19 (Statistical Package for Social Sciences).

### Formation and Testing of Hypotheses

As the objective is to identify the determinants of retained earnings for selected petroleum sector companies as such, a total of ten (10) hypotheses have been framed and tested. In order to identify the determinants of retained earnings, the hypotheses have been framed on the basis of impact of

independent variables on dependent variable i.e. retained earnings. The second objective of the paper which aims at studying the importance of retained earnings as source of finance for petroleum sector companies has been answered on the basis of review of literature of earlier previous studies carried out.

The hypotheses developed for petroleum sector companies are as follows.

**H0 1(P):** There is no significant impact of profit after tax (PAT) on retained earnings (RE) of petroleum sector companies.

**HA 1(P):** There is a significant impact of profit after tax (PAT) on retained earnings (RE) of petroleum sector companies.

**H0 2(P):** There is no significant impact of dividend paid (DP) on retained earnings (RE) of petroleum sector companies.

**HA 2(P):** There is a significant impact of dividend paid (DP) on retained earnings (RE) of petroleum sector companies.

**H0 3(P):** There is no significant impact of reserves (RES) on retained earnings (RE) of petroleum sector companies.

**HA 3(P):** There is a significant impact of reserves (RES) on retained earnings (RE) of petroleum sector companies.

**H0 4(P):** There is no significant impact of current ratio (CR) on retained earnings (RE) of petroleum sector companies.

**HA 4(P):** There is a significant impact of current ratio (CR) on retained earnings (RE) of petroleum sector companies.

**H0 5(P):** There is no significant impact of debt equity ratio (DER) on retained earnings (RE) of petroleum sector companies.

**HA 5(P):** There is a significant impact of debt equity ratio (DER) on retained earnings (RE) of petroleum sector companies.

**H0 6 (P):** There is no significant impact of investment (INVS) on retained earnings (RE) of petroleum sector companies.

**HA 6 (P):** There is a significant impact of investment (INVS) on retained earnings (RE) of petroleum sector companies.

**H0 7(P):** There is no significant impact of inventory (INV) on retained earnings (RE) of petroleum sector companies.

**HA 7(P):** There is a significant impact of inventory (INV) on retained earnings (RE) of petroleum sector companies.

**H0 8(P):** There is no significant impact of depreciation (DEP) on retained earnings (RE) of petroleum sector companies.

**HA 8(P):** There is a significant impact of depreciation (DEP) on retained earnings (RE) of petroleum sector companies.

**H0 9(P):** There is no significant impact of cash flows (CF) on retained earnings (RE) of petroleum sector companies.

**HA 9(P):** There is a significant impact of cash flows (CF) on retained earnings (RE) of petroleum sector companies.

**H0 10(P):** There is no significant impact of corporate tax (CT) on retained earnings (RE) of petroleum sector companies.

**HA 10(P):** There is a significant impact of corporate tax (CT) on retained earnings (RE) of petroleum sector companies.

### Profile of Petroleum Industry

Petroleum sector plays an influential part in country's economy and helps in the economic and welfare development. The petroleum industry in India contributes 15 percent in the total GDP of India. After the inception of the liberalization- privatization -globalization (LPG) in the month of July 1991, the government allowed this sector to go into private as well as government joint ventures. The deregulation process in the Indian petroleum industry got a boost in the year 1997 when it was decided that the process of liberalization and deregulation would be accelerated in this industry and all regulations would go away from the month of April in the year 2002.

The government eased the stringent regulation process in the petroleum sector, this gave a tremendous boost to this industry, and the industry began to grow at a tremendous pace. The production of petroleum and petroleum products also showed a significant rise. After the liberalization and privatization the overall economy of India grew, also the demand for petroleum products increased at an annual rate of about 5.5%.

The petroleum sector in India is particularly favorable to foreign investment because the industry is one of the fastest growing segments and it has shown a staggering growth rate of 13 percent in the recent past, the petroleum industry in India boasts technology of international standards, easy availability of infrastructure at very cheap rates. High demand for petroleum products and increased spending habits of the middle class people all these factors make investment in Indian petroleum sector an attractive proposition for foreign investors.

The foreign trade in petroleum and petroleum products in the recent past have registered significant growth; it has attracted new foreign investments. Some of the main petroleum products that are manufactured for trade foreign countries are naphtha, ethane, kerosene, petroleum gases, gas oil, and propane and distilled crude oil.

### Analysis and Interpretation for Petroleum Sector

On the basis of hypotheses developed for petroleum sector companies, with the help of multiple regression analysis following interpretations is made by testing each independent variable with dependent variable i.e. retained earnings. The variable interest was dropped from the

analysis due to the problem of multi collinearity. The results of multiple regression for petroleum sector are presented in Table

### Profit after Tax (PAT) with Retained Earnings (RE)

**Null Hypothesis: H0 1(P):** There is no significant impact of profit after tax (PAT) on retained earnings (RE) of petroleum sector companies.

**Alternate Hypothesis: HA 1(P):** There is a significant impact of profit after tax (PAT) on retained earnings (RE) of petroleum sector companies.

It is inferred from multiple regression test results which gives a positive regression coefficient (beta value) of 1.066 which indicates a positive impact of profit after tax on retained earnings for petroleum sector companies. To check the statistical significance of this impact the t and significant values are obtained which are 66.030 and 0.000, since, the significant value is less than 0.01 (99%) and also less than 0.05 (95%) level of significance thus, statistically the impact is highly significant as such, the null hypothesis H0 1(P) is rejected and the alternate hypothesis HA 1(P) is accepted.

### Dividend Paid (DP) with Retained Earnings (RE)

**Null Hypothesis: H0 2(P):** There is no significant impact of dividend paid (DP) on retained earnings (RE) of petroleum sector companies.

**Alternate Hypothesis: HA 2(P):** There is a significant impact of dividend paid (DP) on retained earnings (RE) of petroleum sector companies.

Test of multiple regression results gives a negative regression coefficient (beta value) of -0.372, it means there is a negative impact of dividend paid on retained earnings for petroleum sector companies. To check the statistical significance of this impact the t and significant values are obtained which are -21.645 and 0.000, since, the significant value is less than 0.01 (99%) and less than 0.05 (95%) level of significance hence, statistically the impact is highly significant therefore, the null hypothesis H0 2(P) is rejected and the alternate hypothesis HA 2(P) is accepted.

### Reserves (RES) with Retained Earnings (RE)

**Null Hypothesis: H0 3(P):** There is no significant impact of reserves (RES) on retained earnings (RE) of petroleum sector companies.

**Alternate Hypothesis: HA 3(P):** There is a significant impact of reserves (RES) on retained earnings (RE) of petroleum sector companies.

Multiple regression test results give a positive regression coefficient (beta value) of 0.784 it means there is a positive impact of reserves on retained earnings for petroleum sector companies. To assess whether this impact is statistically significant or not the t and significant values are obtained which are 0.699 and 0.485 since the significant value is greater than 0.01 (99%) and also greater than 0.05 (95%) level of significance, it means statistically the impact is not

significant therefore, the null hypothesis  $H_0 3(P)$  has failed to be rejected.

#### **Current Ratio (CR) with Retained Earnings (RE)**

**Null Hypothesis:  $H_0 4(P)$ :** There is no significant impact of current ratio (CR) on retained earnings (RE) of petroleum sector companies.

**Alternate Hypothesis:  $H_A 4(P)$ :** There is a significant impact of current ratio (CR) on retained earnings (RE) of petroleum sector companies.

Multiple regression test results gives a positive regression coefficient (beta) value of 0.799 which means there is a positive impact of current ratio on retained earnings for petroleum sector companies. In order to check whether this impact is statistically significant or not the t and significant values are derived which are 4.051 and 0.000, as the significant value is less than 0.01(99%) and less than 0.05 (95%) level of significance as such, the impact is statistically highly significant therefore, the null hypothesis  $H_0 4(P)$  is rejected and the alternate hypothesis  $H_A 4(P)$  is accepted.

#### **Debt Equity Ratio (DER) with Retained Earnings (RE)**

**Null Hypothesis:  $H_0 5(P)$ :** There is no significant impact of debt equity ratio (DER) on retained earnings (RE) of petroleum sector companies.

**Alternate Hypothesis:  $H_A 5(P)$ :** There is a significant impact of debt equity ratio (DER) on retained earnings (RE) of petroleum sector companies.

Regression test statistics gives a low regression coefficient (beta value) of 0.004 which indicates that there is a neutral impact of debt equity ratio on retained earnings for petroleum sector companies. To find the statistical significance of this impact the t and significant values are obtained which are 0.101 and 0.920, as the significant value is greater than 0.01 (99%) and also greater than 0.05 (95%) level of significance hence, the impact is statistically not significant therefore, the null hypothesis  $H_0 5(P)$  has failed to be rejected.

#### **Investment (INVS) with Retained Earnings (RE)**

**Null Hypothesis:  $H_0 6(P)$ :** There is no significant impact of investment (INVS) on retained earnings (RE) of petroleum sector companies.

**Alternate Hypothesis:  $H_A 6(P)$ :** There is a significant impact of investment (INVS) on retained earnings (RE) of petroleum sector companies.

Test of multiple regression results gives a negative regression coefficient (beta value) of -0.114 that means there is a negative impact of investment on retained earnings for petroleum sector of companies. To assess whether the impact is statistically significant or not the t and significant values are obtained which are -0.781 and 0.435, since, the significant value is greater than 0.01 (99%) and also greater than 0.05 (95%) level of significance

hence, the impact is statistically not significant therefore, the null hypothesis  $H_0 6(P)$  has failed to be rejected.

#### **Inventory (INV) with Retained Earnings (RE)**

**Null hypothesis:  $H_0 7(P)$ :** There is no significant impact of inventory (INV) on retained earnings (RE) of petroleum sector companies.

**Alternate hypothesis:  $H_A 7(P)$ :** There is a significant impact of inventory (INV) on retained earnings (RE) of petroleum sector companies.

Multiple regression test results gives a negative regression coefficient (beta value) of -0.009, it means there is a negative impact of inventory on retained earnings for petroleum sector of companies. For assessing the statistical significance of this impact the t and significant values are obtained which are -0.483 and 0.629, as the significant value is greater than 0.01 (99%) and greater than 0.05 (95%) level of significance hence, the impact is statistically not significant therefore, the null hypothesis  $H_0 7(P)$  has failed to be rejected.

#### **Depreciation (DEP) with Retained Earnings (RE)**

**Null hypothesis:  $H_0 8(P)$ :** There is no significant impact of depreciation (DEP) on retained earnings (RE) of petroleum sector companies.

**Alternate Hypothesis:  $H_A 8(P)$ :** There is a significant impact of depreciation (DEP) on retained earnings (RE) of petroleum sector companies.

Multiple regression test results gives a negative regression coefficient (beta value) of -0.015, which means there is a negative impact of depreciation on retained earnings for petroleum sector companies. In order to know the statistical significance of this impact the t and significant values are obtained which are -2.226 and 0.027 as the significant value is greater than 0.01 (99%) but it is less than 0.05 (95%) level of significance hence, it is significant at 95% level of significance as such, the impact is statistically significant therefore, the null hypothesis  $H_0 8(P)$  is rejected and the alternate hypothesis  $H_A 8(P)$  is accepted.

#### **Cash Flows (CF) with Retained Earnings (RE)**

**Null hypothesis:  $H_0 9(P)$ :** There is no significant impact of cash flows (CF) on retained earnings (RE) of petroleum sector companies.

**Alternate hypothesis:  $H_A 9(P)$ :** There is a significant impact of cash flows (CF) on retained earnings (RE) of petroleum sector companies.

It is inferred from multiple regression results which gives a negative regression coefficient (beta value) of -0.205, it indicates that there is a negative impact of cash flows on retained earnings for petroleum sector companies. To assess the statistical significance of this impact the t and significant values are obtained which are -7.614 and 0.000, as the significant value is less than 0.01 (99%) and less than 0.05 (95%) level of significance hence, the impact is statistically significant therefore, the null hypothesis  $H_0$



9(P) is rejected and the alternate hypothesis HA 9(P) is accepted.

#### Corporate Tax (CT) with Retained Earnings (RE)

**Null hypothesis: H0 10(P):** There is no significant impact of corporate tax (CT) on retained earnings (RE) of petroleum sector companies.

**Alternate hypothesis: HA 10(P):** There is a significant impact of corporate tax (CT) on retained earnings (RE) of petroleum sector companies.

It is inferred from multiple regression test which gives a negative regression coefficient (beta value) of -0.088, which indicates a negative impact of corporate tax on retained earnings for petroleum sector companies. For finding the statistical significance of this impact the t and significant values are obtained which are -0.520 and 0.603, as the significant value is greater than 0.01(99%) and also greater than 0.05 (95%) level of significance hence, the impact is statistically not significant therefore, the null hypothesis H0 10(P) has failed to be rejected.

The value of R Square (coefficient of determination) in Table for petroleum sector is equal to 0.92 which indicates that 92% variance in the dependent variable i.e. retained earnings is explained by the independent variables.

**Table For Analysis of Petroleum Sector**

Variable	Beta ( $\beta$ )	t	Sig	R Square
(Constant)		-0.214	0.831	0.92
PAT	1.066	66.030	0.000**	
DP	-0.372	-21.465	0.000**	
RES	0.784	0.699	0.485	
CR	0.799	4.051	0.000**	
DER	0.004	0.101	0.920	
INVS	-0.114	-0.781	0.435	
INVN	-0.009	-0.483	0.629	
DEP	-0.015	-2.226	0.027*	
CF	-0.205	-7.614	0.000**	
CT	-0.088	-0.520	0.603	

\*\* Represents Significant at 99% level of significance

\* Represents Significant at 95% level of significance

### V. CONCLUSION

On the basis of analysis of secondary data with the help of multiple regression tests for framed hypotheses, the following conclusions are presented for variables understudy for petroleum sector companies. Followings variables have been identified as important determinants of retained earnings in case of petroleum sector companies.

The variable **PAT** showed positive impact on the retained earnings in case of petroleum sector companies. A positive impact of PAT indicates more profit after tax at the disposal of companies to retain from. The impact of **PAT** is statistically significant.

The variable **DP** showed negative impact on the retained earnings in case of petroleum sector. Statistically the

variable impact is found to be significant. The variable **DP** can be concluded as an important determinant of retained earnings that has a negative impact on the retained earnings of selected petroleum sector companies under study. Statistically the variable impact is found to be significant.

The impact of **RES** is positive for petroleum sector companies which indicate that petroleum sector companies do more retention of earnings to suffice its reserves position, the variable impact statistically is found to be not significant for this sector. The impact of **CR** is positive and significant. **DER** showed a neutral impact on retained earnings for petroleum sector and statistically the impact is not significant. The variable **INVS** showed a negative impact for petroleum sector companies but on statistical ground the impact is not significant. The impact of variable **INV** on retained earnings of petroleum sector companies is negative and statistically the impact is not significant. **DEP** variable impact was found to be negative and statistically it is significant. **CF** variable impact was found to be negative and statistically it is significant. **CT** variable impact was found to be negative and statistically it is not significant.

#### Conclusion for Studying the Importance of Retained Earnings as a Source of Finance for Petroleum Sector Companies:

For the objective of studying the importance of retained earnings as a source of finance for companies, the review of literature gives an account of earlier studies that highlights the importance of retained earnings as a source of finance for petroleum sector companies.

The present paper concludes that importance of retained earnings as a source of finance for companies is immense and of significant importance. The importance of retained earnings is established by the fact that retained earnings is an internally generated source of finance by companies from their after tax profits. The management of companies has complete and independent control regarding the decision to retain earnings after paying reasonable dividends to their shareholders.

The study found that retained earnings provides companies the benefit of being a cheap and easily available source of finance as it does not involve any external cost and formalities involved like other external sources of finance. The value maximising investments of companies are preferred to be firstly financed by retained earnings. Companies use retained earnings as a means of risk mitigation, to with stand depressions, to equalize dividend payments. The availability of internal funds or retained earnings guarantee the realization of profitable investment projects and at the same time avoids higher cost of capital.

The research and development and expansions programs of companies are financed by the retained earnings. Companies use retained earnings to finance their investments when supply of funds is limited on account of poor profits in a particular financial year. Companies divert

their earnings retained to profitable investment opportunities which earn them higher rate of return which in turn maximises the market value of companies. The importance of retained earnings as source of finance for companies is also adjudged by the fact that retention of earnings by companies provides them with long term capital gains. Retained earnings contribute a significant share in capital base of companies. In developed countries like USA, UK, Germany, Finland, Italy, two third of average investment financing is mobilised through internal finance or retained earnings. In India the corporate sector mobilises a large share of finance by way of internal sources like retained earnings. The share of retained earnings or internal sources has increased remarkably by the latter half of 1990 which in turn influenced and impacted the share prices of companies in positive direction.

The above mentioned importance of retained earnings as a source of finance for petroleum sector companies has been supported by a number of earlier existing studies on retained earnings focusing on the importance / benefits / advantages retained earnings provides to companies. Most of the earlier studies found retained earnings to be of significant importance for companies. The conclusion for this objective are supported by the studies of Beena (2011), Bhayani (2009), Salvary (2007), Sagar S (2005), RBI (2005), Bartram (2000).

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### Annexure: Name of Selected Petroleum Companies of Petroleum Sector:

- 1) Bharat Petroleum Corporation Ltd.
- 2) Bongaion Refinery & Petrochemicals Ltd.
- 3) Caltex Lubricants India Ltd.
- 4) Castrol India Ltd.
- 5) Chennai Petroleum Corp Ltd.
- 6) Essar Oil Ltd.
- 7) Goa Carbon Ltd.
- 8) Gulf Oil Corp Ltd.
- 9) Hemi Petro Products Ltd
- 10) Valvoline Cummins Ltd
- 11) HPCL.
- 12) Icon Oil & Specialities Ltd.
- 13) Indian Oil Blending Ltd.
- 14) IOCL
- 15) Kochi Refineries Ltd.
- 16) Lubrizol India Pvt Ltd.
- 17) Motorol India Ltd
- 18) Motorol Speciality Oils Ltd
- 19) Panama Petro Chemicals Ltd.
- 20) Reliance Industries Ltd.
- 21) Savita Oil Technologies Ltd.
- 22) Sunstar Lubricants Ltd.
- 23) Tide Water Oil Co Ltd.
- 24) Total Lubricants India Ltd.