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4.1 CONCEPT OF GENERATION & APPLICATION OF VALUE ADDED

- **GENERATION OF VALUE ADDED**

(i) **Sales Revenue**

The term of sales means the gross sales of goods plus “Sales Tax” [after deducting trade discount, rebates commission and returns etc.]

(ii) **Income from services**

The income from services represents income from dividends from subsidiary companies, rents compensation and other miscellaneous income less scrap etc.

(iii) **Accretion or Depreciation Of Stock**

Accretion or Depreciation of stock is added or deducted from the turnover.

(iv) **Bought In Materials**

Bought in materials includes the cost of raw materials, finished goods, stores and spares consumable stores, dyes, chemicals, power, fuel, water, packing materials, shortages in goods, repairs & maintenance.

(v) **Cost of Services**

The term “Cost Of Services” includes the cost paid for external agencies for using facilities offered by them, such as bank, commission, insurance premium, advertising, and publicity, postage, telephone, printing, stationary, audit fee, legal charges and travelling charges etc.¹

- **APPLICATION OF VALUE ADDED**

  1. Employees
  2. Government
  3. Providers of capital
  4. Owners (Retained Earning)

Four claimants, viz. Employees, providers of capital, government and the owners, share the Net Value Added. In some Value Added statement instead of ‘owner’ growth and maintenance or other such items find a place. As a matter of principle, the claimants are the persons contributing or providing their efforts or facilities directly or indirectly not even or quid pro quo (that is something given in return) basis. Payments made to them are to be segregated accordingly.
(i) **Employees**- Workers are one of the major claimants of the value Added the employees included all human resources i.e. workers and staff engaged in business. The workers suspect that the shareholders are reaping large rewards while they, the men who produce the goods are denied their dues. “The values Added goes to human resources. Such payments includes (a) salaries and wages (b) Payment of bonus (c) Contribution to provident funds, ESI etc. (d) Welfare expenses (e) payment gratuity (f) Director’s remunerations, etc. ²

(ii) **Providers of Capital**- Financing institutions, public and the owners provide capital to the enterprise but under this caption, providers of only interest veering funds are taken into consideration. For example, interest on debentures, public deposits, long-term loans, working capital loans etc. There is a school of thought that argues the exclusion of interest on working capital, loans and advances. It is also a matter of experience that working capital loans are sometimes converted into term loans.

(iii) **Government**- The government, which provides not only infrastructure facilities but also condition conductive for carrying out operational activities has also its claims in the value Added. Taxes, duties, rates etc. are levied by the government, whether it be the central, state or local government, for the purpose of maintenance of law, all such payment shown below should be included under this heading ³.

(a) Excise duty, (b) Sales tax (c) Octroi duty (d) Custom duty ,(e) Rates and taxes(f) Other direct taxes(g) Export incentives(h) Subsidies received(i) Refund of any duty or taxes like duty drawback.

(iv) **Owners**- The owner or shareholders are the ultimate claimants of the value Added. A part of the value added is paid to them in the form of dividends is also to be shown as a distribution of value Added. Finally, the reminder of the value Added, which is retained earning, is to be separately shown under the heading “reinvestment the business” in the distribution part and transferred to general reserve. The assumption underlying the preparation of values Added statement are:

I. The value added statement is no substitute but a supplement to the profit and loss account.
II. It is based on the item and figures obtained in the profit and loss account where by it implies that accounting concepts like those of realization, accurate remains the same in preparing the value added statement.

III. It is difficulty from the profit and loss account to an extent, the latter contains the non-value Added debits and credits like provision non trading losses, appropriations as well s non-trading incomes like, profit form sale of scrap, interest on securities, dividends etc. They do not find place in the value added statements that merely address itself to reveal the contributions of factors production by reclassifying the accounting heads.
4.3 ANALYSIS OF VALUE ADDED STATEMENT OF WIPRO LTD.

The Value Added Statement of WIPRO TECH.Ltd. has been analysed in two part viz Generation of Value Added and Application of Value Added in firm.

THE GENERATION OF VALUE ADDED

The Generation of Value Added reveals that Table 4.1. The percentage of Sales Turnover towards Total Revenue marked fluctuating trend throughout the period of study from 2005-06 to 2009-10. It was 98.93 percent in 2005-06. It was to 98.22 percent in 2006-07, it further decreased to 97.97 percent in 2007-08. It reached the highest level at 98.99 percent in 2008-09, and finally it reached at 98.42 percent in 2009-10.

The absolute figure of Sales Turnover marked continuously increased throughout the period of study from 2005-06 to 2009-10. It was the lowest figure at ₹ 10667 crore in 2005-06. It increased to ₹ 15106 crore in 2006-07. ₹ 20087 crore in the year 2007-08. It further increased ₹ 25716 crore in 2008-09 and finally it reached the highest level at ₹ 27382 crore in 2009-10. Above figure are the evident proof of company that growing fast. The main reason is behind that company increase their service product of software and launch new product in global market.

The percentage of other income towards Total Earning was 1.07 percent in 2005-06, which shows fluctuating trend from year to year. It slightly increased to 1.78 percent in 2006-07. It was 2.03 percent in 2007-08; it decreased to 1.01 percent in 2008-09 and finally it increased to 1.58 percent in year 2008-09. The absolute amount of other income registered a fluctuating trend during the period of study. It was ₹ 115 crore in 2005-06. It was ₹ 273 crore 2006-07. It increased upto ₹ 417 crore in 2007-08. It decreased upto ₹ 262 crore in 2008-09. And finally it reached highest level at to ₹ 438 crore in 2009-10.

The Cost of Bought-in Material and the Services toward Total Earning with including Total Sales and Other income shown in terms of percentage registered fluctuating trend during the the study period. It was 33.15 percent in 2005-06. It was 34.3 percent in 2006-07. It increased upto 37.33 percent in 2006-07. It further decreased to 37.42 percent in 2008-09 and it finally reached and increased upto 38.06 percent in 2009-10.

Analysis of the Cost of Bought – In Material And Service separately, the cost material ranged between 14.46 percent in 2005-06 to 23.26 percent in 2007-08. It
registered a fluctuating trend during the study period, while the cost of service fluctuating between 14.64 percent in 2006-07 to 19.52 percent in 2009-10.

The absolute amount of material showed an increased trend in remaining years. It was ₹1560 crore in 2005-06. It was ₹3044 crore in 2006-07. It increased to ₹4769 crore in 2007-08. It reached level at ₹5157 crore in 2009-10. And finally it reached and increased ₹5353.10 crore in 2008-09. However the absolute amount of Service showed continuously increasing trend during the remaining years. It was ₹2014 crore in 2005-06, it was ₹2251 crore in 2006-07. It increased up to ₹2885 crore in 2007-08. It further increased up to ₹4368 crore in 2008-09 and finally reached the highest level at ₹5431 in 2009-10. Above discussion shows that the company should try to reduce the proportion Raw material and Services bought from outsiders compare to Total Earning.

CHART- 4.1

The Gross Value Added showed decreasing trend during the study period. The ratio of Gross Value Added of Total Earning ranged between 66.85 percent in 2005-06 to 61.94 percent in 2009-10. It was 65.57 percent in 2006-07. It decreased to 62.67 percent
in 2006-07. It further decreased to 62.58 percent in 2006-07. And finally it reached to lowest level at 61.94 percent in 2009-10.

The absolute of figure Gross Value Added showed continuously increasing trend during the study period it was the lowest level at ₹.7208 crore in 2005-06. It was ₹10084 crore in 2006-07. It increased upto ₹12850 crore in 2007-08, it further increased upto ₹16257 crore in 2008-09. Finally it reached the highest level at ₹17232 crore in 2009-10.

The index number of Net Value Added was 100.00 in 2005-06, being the base year, which was increased to 141.55 in 2006-07, which was increased to 179.95 in 2007-08, followed by 227.55 in 2008-09. It increased to 240.80 in 2008-09. The absolute figure of Net Value Added shows increasing trend throughout during year 2005-06 to 2009-10. The the lowest figure of Net Value Added was ₹.6843 crore in 2005-06, which was increased to ₹.9686 crore in 2006-07, ₹.12314 crore in 2007-08, ₹.15571 crore in 2008-09. ₹.16478 crore in 2009-10 which was the highest figure Net Value Added for the study period. The Highest growth in Net Value Added then later year of study is attributable to the optimum utilisation of capacities, improvement in operating efficiencies and successful marketing of products.

The proportion of Depreciation showed continuously increasing trend during the study period upto 2005-06 to 2009-10. The absolute amount of Depreciation was the lowest level at ₹.365 crore in 2005-06. It was ₹.398 crore in 2006-07. It increased up to ₹.536 crore in 2007-08. It further increased up to ₹.686 crore in 2008-09. And finally it reached the highest level at ₹.754 crore in 2009-10. The percentage of Depreciation towards Total Earning include Sales Turnover and other income. It ranged between 2.63 percent in 2006-07 to 3.42 percent in 2005-06.

Above discussion clearly show that the proportion is part of retained earning it remains in year that why it better for company.

**APPLICATION OF VALUE ADDED**

Above Table-4.2 reveals that application of value added.

The analysis of application of Net Value Added shows that the more significant part of value added was applied for Payment to Employees.
The significant part of Net Value Added was applied for Payment to Employees. The percentage of Payment to Employees towards Net Value Added was continuously increasing trend during the period of study. It ranged between 64.07 percent in 2005-06 to 68.76 percent in 2008-09. It was 64.42 percent in 2006-07. 67.18 and 65.09 percent in the years 2007-08 and 2009-10 respectively. The absolute figure of Payment to Employees continuously increasing trend during the period of study. It ranges between ₹.4385 crore in 2005-06 to ₹.10706 crore in 2009-10. It was ₹.6240 crore in 2006-07. It increased to ₹.8273 crore in 2007-08. It further increased to ₹.10706 crore in 2008-09. Finally it reached the highest level at ₹.10725 crore in 2009-10. That shows during that period a constant growth followed by the company.
Secondly, As the percentage of the **Contribution to Government** towards **Net Value Added** was **6.67** percent in 2005-06. It increased to **6.38** percent in 2006-07, it was **6.00** percent in 2007-08. It further decreased to **5.30** percent in 2008-09. Finally it was the highest level at **6.81** percent in 2009-10. The absolute figure of Contribution to Government was continuously increasing trend during the period of study. It was the lowest level at **₹.457** crore in 2005-06, it increased to **₹.618** crore in 2006-07, it increased **₹.739** crore in 2007-08. It further decreased **₹.825** crore in 2008-09. And finally it increased the highest level at **₹.1122** crore in 2009-10.

The next major portion was consumed **Payment to Capital Providers**. It has divided two parts firstly, **Payment to Lender** in form of **interest** and secondly, **Payment to Shareholders** in form of **dividend**.
Payment to Interest of Lenders marked decreasing trend during the years 2005-06 to 2006-07. After it increased in the years 2007-08 and 2008-09. It was 0.51 percent in 2005-06. It decreased to 0.12 percent in 2006-07, further increased to the level at 1.37 percent in 2007-08. After then it increased to 1.54 percent in 2008-09. At last it resched at 0.86 in the year 2009-10. The absolute amount of Payment to Lender fluctuating trend
during the period of study. It was ₹.35 crore in 2005-06 it decrease to ₹12 crore in 2006-07. It increase to ₹.169 crore in 2007-08. It was the highest level at ₹.240 crore in 2008-09. Finally it reached level at ₹.142 crore in 2009-10.

The portion of Payment to Shareholders to Net Value Added increasing trend during period of study except in the year 2008-09. It was 10.42 percent in 2005-06, 8.98 percent in 2006-07. It decreased to 7.18 percent in 2007-08 and It further decreased to 3.76 percent in 2008-09. Finally it reached level at 5.35 percent in 2009-10. The absolute amount of Payment to Shareholders increasing trend during period of study except year 2008-09. It was the lowest level at ₹.713 crore in 2005-06, it increased to ₹.870 crore in 2006-07, it increased ₹.877 crore in 2007-08. It decreased ₹.586 crore in 2008-09. And finally it increased the highest level at ₹.881 crore in 2009-10.

Above analysis shows that share holders point of view amount of divided in term of amount and percentage in both the respect increases gradually year by year simple reason is interest liabilities are decreased and more funds and profit are available to the shareholders.

The percentage of Retained In Business to Net Value Added fluctuating trend during the period of study. It was 18.33 percent 2005-06, 20.09 percent and 18.33 percent in 2006-07 and 2007-08 respectively. It was 20.64 percent in 2008-09. It increased to 21.90 percent in 2009-10. The absolute figure of Retained In Business continuously increasing trend during year 2005-06 to 2009-10. It was ₹.1253 crore in 2005-06, ₹.1946 crore in 2006-07. It increased to ₹.2256 crore in 2007-08. It further increased to ₹.3214 crore in 2008-09. After then it was the highest level at ₹.3608 crore in 2009-10.
The above analysis is described that the highest percentage (21.90%) of Net Value Added gone to retain in business every year during the period of study. It revels from this analysis that company transfer more amount to reserve and surplus. Every year during period of study but in 2008-09 borrowed amount of retain in business slightly decreased, thus overall condition of company is better.

4.4 TESTING OF HYPOTHESIS OF THE STUDY

The following hypotheses are framed for this Research study:

Null Hypothesis (H₀)

1. There is no significant relation between Sales and Gross Value Added of Wipro Tech Ltd.

2. There is no significant relation between Sales and Net Value Added of Wipro Tech Ltd.

Alternative Hypothesis (H₁)

1. There is significant relation between Sales and Gross Value Added of Wipro Tech Ltd.

2. There is significant relation between Sales and Net Value Added of Wipro Tech Ltd.

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added (Y) it is that shows higher degree and Net value added (Z)
Testing hypothesis 1

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added(Y) it is \( r_1(x, y) = 0.9997 \) that shows higher degree correlation between sales and Gross Value Added. Significance of correlation will also be tested through Student T- test as:-
\[
T \text{ (cal)} = 12.12 \\
T \text{(tab)} = 2.31 \text{ at 5% level of significance.}
\]
Calculated value of \( T_c = 12.12 \) which is more as compared to critical value of \( T_t = 2.31 \) at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between Sales and Gross Value Added.¹

Testing of hypothesis 2

A coefficient of correlation is calculated between two variables Sales (X) and Net value added (Z) it is \( r_2(x, z) = 0.9996 \) that shows higher degree correlation between sales and Net value added. Significance of correlation will also be tested through Student T- test as:-
\[
T \text{ (cal)} = 12.27 \\
T \text{(tab)} = 2.31 \text{ at 5% level of significance.}
\]
Calculated value of \( T_c = 12.27 \) which is more as compared to critical value of \( T_t = 2.31 \) at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between sales and Net Value Added.²

One of our hypothesis that Value Added generation and application are ever during the study will be proved, because as per during the study period generation of Value Added marked that Net Value Added 240.80% in the year of 2009-10, due to charges in the various segment of revenue and control on cost of bought in materials. The main reason is behind on it company increase their software and hardware launch new products.
4.6 ANALYSISI OF VALUE ADDED STATEMENT OF CIPLA

The Value Added Statement for CIPLA LTD. is shown in Table 4.3 and Table 4.4 for the year 2005-06 to 2009-10.

THE GENETATION OF VALUE ADDED

Table-4.3 shows the Genetation of Value Added. The absolute figure of Sales Turnover shows trend throughout the study period i.e. from 2005-06 to 2009-10. The lowest figure of Sales Turnover was ₹ 2898 crore in the year 2005-06, which was increased to ₹ 3378 crore in 2006-07, ₹ 3942 crore in 2007-08. It further increased to ₹ 4802 crore in 2008-09, ₹ 5729 crore in the year 2009-10, which was the highest figure in Sales Turnover for the study period.

It is evident from Table-4.3 that Sales Turnover of percentage in the company was always more than 92.08 percent during the study period. It showed fluctuating trend during the period of study. It was 93.03 percent in 2005-06. It marginally increased and reached at 93.60 percent and 92.08 percent in the year 2006-07 and 2007-08 respectively. It camedown to 92.94 percent in 2008-09 and finally it slightly increased and reached at 98.17 percent in 2009-10.

The percentage of other income towards Total Earning was 6.67 percent in 2005-06, which shows fluctuating trend from year to year. It slightly decreased to 6.40 percent in 2006-07. It was 7.92 percent in 2007-08. It further decreased to 7.06 percent in 2008-09 and finally it decreased to 1.83 percent in year 2009-10.

The Cost of Bought-In-Material shown in terms of percentage registered deacreased trend during the study period. It was the highest level at 55.64 percent in 2008-09. It further went down 55.41 percent in 2005-06. It slightly increased to 51.68 percent in 2006-07. It increased and reached at 55.45 percent in 2007-08. Finally it decreased and reached at 46.04 percent in 2009-10.

The Cost of Bought-In-Material and Service from outsiders to Total Earning is countinously increase in trend. But it was the lowest level at 65.46 percent in 2005-06. It was 66.78 percent in 2006-07. It increased to 70.33 percent in 2007-08. It further increased to 72.64 percent in 2008-09 and it finally reached and slightly decreased up to 70.07 percent in 2009-10.
Analysing the Cost Of Bought –In- Material And Service separately, the cost material ranged between 46.04 percent in 2009-10 to 55.64 percent in 2008-09. It registered a fluctuating trend during the study period, while the cost of service fluctuating between 10.05 percent in 2005-06 to 24.03 percent in 2009-10. There was an increasing trend during the period of study year 2005-06 to 2009-10. The absolute amount of material showed an increased trend in remaining years except year 2009-10. It was ₹1,1726 crore in 2005-06. It was ₹1,1865 crore in 2006-07. It increased to ₹2,2374 crore in 2007-08. It increased the highest level at ₹2,2878 crore in 2008-09. And finally it decreased level at ₹2,2688 crore in 2009-10. However the absolute amount of Service showed continuously increasing trend during the remaining years. It was ₹0,313 crore in 2005-06, it was ₹0,545 crore in 2006-07. It increased upto ₹0,637 crore in 2007-08. It further increased upto ₹0,875 crore in 2008-09 and finally reached the highest level at ₹1,403 in 2009-10. Above discussion shows that the company should try to reduce the proportion Raw material and Services bought from outsiders compare to Total Earning.

CHART – 4.7

The Gross Value Added showed fluctuating trend during the study period. The ratio of Gross Value Added of Total Earning included Sales Turnover and other income.
Analysis & Interpretation of Value Added Statement

Chapter 4

The Absolute of Gross Value Added also showed continuously increasing trend during the study period. It was the lowest level at ₹.1076 crore in 2005-06. It increased up to ₹.1270 crore in 2007-08. It further increased up to ₹.1414 crore in 2008-09. Finally it reached the highest level at ₹.1748 crore in 2009-10.

The Value Added Statement of CIPLA Ltd. has been analysed in two parts viz Generation Of Value Added and Application Of Net Value Added. Marked a continuous increased throughout the period of study from 2005-06 to 2009-10. The index number of value added was 100.00 in 2004-05, being the base year, which increased to 110.05 in year 2006-07 followed by 115.98 in 2007-08, 126.83 in 2008-09 and finally it reached to highest level at 158.89 in 2009-10. The absolute figure of Net Value Added shown sharply continuously increasing in trend during the study period. From i.e. from 2005-06 to 2009-10. The lowest figure of Net Value Added was ₹.995 crore in the year 2005-06 where as the highest figure was ₹.1581 crore in the year 2009-10.

The proportion of Depreciation showed continuously increasing trend during the study period up to 2005-06 to 2009-10. The absolute amount of Depreciation was the lowest level at ₹.81 crore in 2005-06. It was ₹.104 crore in 2006-07. It increased up to ₹.116 crore in 2007-08. It further increased up to ₹.152 crore in 2008-09. And finally it reached the highest level at ₹.167 crore in 2009-10. The percentage of Depreciation towards Total Earning include Sales Turnover and other income. It ranged between 2.60 percent in 2005-06 to 2.88 percent in 2009-10.

Above discussion clearly show that the proportion is part of retained earning it remains in year that why it better for company.

THE APPLICATION OF VALUE ADDED

According Table 4.4 shows that application of value added.

The analysis of application of Value Added reveals that more significant part of Value Added was applied for Payment to Employees.
As the percentage of Net Value Added, The Payment to Employee was 15.16 percent in 2005-06 it increased to 16.87 percent in the year 2006-07, 18.54 percent in 2007-08, it further increased the highest level at 21.50 percent in 2008-09. And finally it reached at 20.18 percent in 2009-10. However the absolute amount of employees were ₹ .151 crore in 2005-06 which was increased upto ₹ .185 crore in 2006-07. It slightly increased upto ₹ .214 crore in 2007-08, ₹ .271 crore in 2008-09.and finally it reached the highest level at ₹ .319 crore in 2009-10.
The major portion of Net Value Added in CIPLA Ltd. was utilized for Contribution to Government in form of excise duty and taxes. Contribution to governmet was ₹.246 Crore in 2005-06, which was increased to ₹.261 crore in 2006-07, ₹.254 crore in the year 2007-08, which was decreased to ₹.211 crore in 2008-09 and then it ₹.322 crore in the year 2009-10, its the highest level contribution to government. As the percentage of Net Value Added, The Contribution to Government was 24.77 percent in 2005-06 it decreased to 23.88 percent in the year 2006-07, 22.01 percent in 2007-08, it further decreased to 16.79 crore in 2008-09. And finally it reached level at 20.37 percent in 2009-10.

The next major portion was consumed for payment to capital provide it has divided in two parts. Firstly Payment to Lender in form of interest and secondly Payment to Shareholder in form of dividend.

**CHART – 4.10**

The Payment of Shareholder towards Net Value Added its fluctuating trend during the study of period. It ranged between 10.18 percent in 2009-10 to 15.64 percent in 2005-06. 14.20 percent and 13.47 percent in the years 2006-07 and 2007-08...
respectively. 12.32 percent in 2008-09. The absolute amount of payment to Shareholder in form of dividend was ₹156 crore the lowest level in the year 2005-06 after then it was constant amount in later year. It was ₹155.46 crore in the year 2005-06 upto 2008-09 and finally it reached the highest level at ₹161 Crore in the year 2009-10.

As far as Payment of Shareholder its rate of dividend constant during the year 2005-06 to 2009-10 it proved that good satisfaction level to shareholder

**CHART – 4.11**

The Payment to Lender marked a fluctuating trend during the study period. It was 1.15 percent in 2005-06. It decreased to 0.64 percent in 2006-07, after it increased upto during two years it as 0.98 percent in 2007-08 and it reached the highest level at 2.61 percent in 2008-09 and finally it reached at 1.77 percent. The absolute Amount of The Payment of Interest To Lender was ₹11 crore in 2005-06, it increased to ₹7 crore in 2006-07, it increased to ₹11 crore in 2007-08 after this period it increased to ₹33 crore in 2008-09. Finally it reached level at ₹28 crore in 2009-10. In the years 2005-06 and 2007-08 it decreased burden of borrowed funds.
The percentage of Retained in Business to Net Value Added Continously increasing trend throughout period of study. It increased upto 43.28% percent in 2005-06, 44.42 percent in 2006-07, it further increased to 44.99 percent in 2007-08, it reached at 46.78 percent in 2008-09. Finally it reached the highest level at 46.78 percent in 2009-10. The absolute figure of Retained in Business also continously increasing in trend during year to year i.e. 2005-06 to 2009-10. It was ₹.431 crore in 2005-06. It increase to ₹.486 crore in 2006-07. It further increase to ₹.519 crore in 2007-08, finally it reached at ₹.591 crore in 2008-09. Finally it reached the highest level at ₹.751 crore in 2009-10.

As far as the above analysis is concerned, it may be concluded that the highest percentage of Net Value Added (47.50%) gone to Retained in Business every year during the study period. It reveals from this analysis that company transfer more amount to reserve and surplus every year during the year 2005-06 to 2009-10.

4.7 TESTING OF HYPOTHESIS OF THE STUDY

The following hypotheses are framed for this Research study:

**Null Hypothesis (H₀)**

1. There is no significant relation between Sales and Gross ValueAdded of CIPLA LTD.
2. There is no significant relation between Sales and Net Value Added of CIPLA LTD

**Alternative Hypothesis (H₁)**

1. There is significant relation between Sales and Gross Value Added of CIPLA LTD

2. There is significant relation between Sales and Net Value Added of CIPLA LTD

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added(Y) it is that shows higher degree and Net value added (Z)

❖ Testing hypothesis 1

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added(Y) it is $r_1(x, y) = 0.98$ that shows higher degree correlation between sales and Gross Value Added. Significance of correlation will also be tested through Student T-test as:-

$T (\text{cal}) = 8.53$

$T(\text{tab}) = 2.31$ at 5% level of significance.

Calculated value of $T_c = 8.53$ which is more as compared to critical value of $T_t = 2.31$ at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between Sales and Gross Value Added.⁶

❖ Testing of hypothesis 2

A coefficient of correlation is calculated between two variables Sales (X) and Net value added (Z) it is $r_2(x, z) = 0.97$ that shows higher degree correlation between sales and Net value added. Significance of correlation will also be tested through Student T-test as:-

$T (\text{cal}) = 6.91$

$T(\text{tab}) = 2.31$ at 5% level of significance.

Calculated value of $T_c = 6.91$ which is more as compared to critical value of $T_t = 2.31$ at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between sales and Net Value Added.⁷
One of our hypothesis that Value Added generation and application are ever during the study will be proved, because as per during the study period generation of Value Added marked **Net Value Added 158.89% in the year of 2009-10**, due to charges in the various segment of revenue and control on cost of bought in materials. The main reason is behind on it company increase their production and launch new product.
4.9 ANALYSISI OF VALUE ADDED STATEMENT OF TCS

The Value Added Statement of TATA Consultancy Services Ltd has been analysed in two parts viz Generation of Value Added and Application of Value Added.

THE GENERATION OF VALUE ADDED

The Generation of Value Added reveals that Table-4.5. The percentage of Consultancy Service Income & Sales Product of Software Towards Total Revenue marked fluctuating trend throughout the period of study from 2005-06 to 2009-10. It was level at 98.82 percent in 2005-06, it further same to 98.82 percent in 2006-07, 97.93 percent in 2007-08, it reached at 101.56 percent in 2008-09. Finally it reached at 99.17 percent in the year 2009-10. The absolute figure of consultancy service & sales product of software marked a continuously increased throughout the period of study from 2005-06 to 2009-10. It was the lowest figure at ₹13264 crore in 2005-06. It increased to ₹18689 crore in 2006-07, ₹22866 crore in the year 2007-08, it further increased ₹27816 crore in 2008-09 and finally it reached the highest level at ₹30029 crore in 2009-10. Above figure are the evident proof of company that growing fast. The main reason is behind that company increase their service product of software and launch new product in global market.

The proportion of Other Income towards Total Revenue shows that it marked fluctuating trend during the study period. It was 1.18 percent in 2005-06, it increased to 1.18 percent in 2006-07, it increased to 2.07 percent in 2007-08, it decreased upto -1.56 percent in 2008-09, finally it reached at 0.83 percent in 2009-10. In case of the absolute amount at Other Income continuously increased trend during the study period except the year 2008-09. It was ₹158 crore in 2005-06, it increased upto ₹224 crore in 2006-07, ₹484 crore in 2007-08, it further decreased ₹-427 crore in 2008-09, and finally it level at ₹251Crore in 2009-10.

The proportion of cost of Bought-In Service to Total Revenue on the year 2005-06-to-2007-08. In case of the absolute amount at cost of services continuously increased trend during the study period. It was ₹4795 crore in 2005-06, it increased upto ₹5543 crore in 2006-07, ₹9054 crore in 2007-08, it further increased ₹10742 crore in 2008-09, and finally it level at ₹10412 Crore in 2009-10. It will not be out of place to Bought
In Materials did not increase as the result of which the figure of Bought InService increased proportionally.

Analysing the Cost of Bought-In-Service, the cost of Services ranged between 29.31 percent in 2006-07 to 39.22 percent in 2008-09. It registered a fluctuating trend during the period of study. While the Cost of Service registered increasing trend during the year 2005-06 to 2008-09. After it slightly decreased in the year 2009-10. It ranged between the lowest level at 29.31 percent in 2006-07 to 39.22 percent in 2008-09, which was not so significant on the whole it may be concluded that to improve the figure at Net Value Added that is most important to control the expenditure on Bought In Service.

The Gross Value Added showed fluctuating trend during the study period. It was 64.28 percent in 2005-06, it increased the highest level at 70.69 percent in 2006-07, it decreased to 61.23 percent in 2007-08, it decreased up to 60.78 percent in 2008-09, finally it reached at 65.61 percent in 2009-10. The absolute amount of Gross Value Added also marked a continuously increasing trend during study period. It was the lowest level at ₹ 8627 crore being started in 2005-06, ₹ 13370 crore in 2006-07. It slightly increased up to ₹ 14296 crore in 2007-08. It further increased to ₹ 16647 crore in 2008-09, and finally it reached the highest level at ₹ 19868 crore in 2009-10. Above analysis reveals that a higher proportion of Gross Value Added in Total Revenue will be consider good and will show better social performance.

**Chart - 4.13**
The index number of **Net Value Added** was **100.00** in 2005-06 being the base year, which was increased to **154.94** in 2006-07 followed by **164** in 2007-08. It was increased to **192.73** in 2008-09. And it reached the highest level at **230.16** in 2009-10, higher growth in **Net Value Added** in years 2005-06 to 2009-10 it increased upto **130.16** growth rate during remaining years. The absolute figure of **Net Value Added** shows increasing trend throughout the study period i.e. from 2005-06 to 2009-10. The lowest figure of **Net Value Added** was **₹8345** in the year 2005-06, which increased to **₹12930** crore in 2006-07, **₹13732** crore in 2007-08, **₹16083** crore in 2008-09, and **₹19207** crore in the year 2009-10 which was the highest figure of **Net Value Added** for the study period. Higher growth in **Net Value Added** during the year of study is attributable to the optimum utilisation of companies, improvement in operations efficiencies and successful marketing of products.

The proportion of Depreciation showed an increasing trend during year 2005-06 to 2007-08. Later on it decreased in year 2008-09. It ranged between **2.06** percent in 2008-09 to **2.42** percent in 2007-08. It was to **2.10** percent in 2005-06. However the absolute amount of Depreciation registered an increasing trend during the period of study. It was **₹282** crore in 2005-06. It increased to **₹440** crore in 2006-07. **₹564** crore in 2007-08, it further same to **₹564** crore in 2008-09 and finally it reached to highest level at **₹661** crore in 2009-10. Above analysis shows that its positive for liquidity point of view. Especially amount of Depreciation will increased significantly due to expansion and development activities it shows significant contribution by the company towards society.

**APPLICATION OF VALUE ADDED**

It is evident from **table 4.6** shows that application at value added.

The analysis of application of value added reveals that the more significant part of value added was applied for Payment of Employees.

As the percentage of the **Payment to Employees** towards **Net Value Added** was **56.56** percent in 2005-06 it increased the highest level at **61.89** percent in 2006-07, **57.20** percent in 2007-08. It further increased to **61.57** percent in 2008-09. And finally it reached and increased to **56.65** percent in 2009-10. The absolute figure of Payment To Employee was **₹4720** crore in 2005-06. It increased to **₹8003** crore in 2006-07. **₹7855** crore in 2007-08,
it further increased to ₹.9902 crore in 2008-09 and finally it reached the highest level at ₹.10880 crore in 2009-10.

The second portion of Net Value Added in Tata consultancy service was utilized for Contribution To Government in form of excise duty and taxes the percentage of Contribution To Government towards Net Value Added was 7.23 percent in 2005-06. It
decreased to 6.47 percent in 2006-07. 7.46 percent in 2007-08. It was the highest level 9.68 percent in 2009-10. The absolute figure of *Contribution To Goverment* ₹.603 crore in 2005-06, which was increased to ₹.837 crore in 2006-07. ₹.1024 crore in 2007-08. It further increased to ₹.1075 crore in 2008-09. Finally it reached the highest level at ₹. 1860 crore in 2009-10.

The next major portion was consumed for *Payment To Capital Provider* it has divided in two parts firstly. *Payment To Lander* in form of *interest* and secondly *Payment To Shareholder* in form of *dividend*.

**Chart- 4.16**

Payment to interest to lenders marked fluctuating trend during the period of study. It was 0.47 percent in 2005-06, 0.40 percent in 2006-07, 0.47 percent and 0.52 percent in 2007-08 and 2008-09 respectively. And finally it reached at 0.56 percent in 2009-10. The absolute amount of the Payment of Intrest to Lenders was ₹.39 crore in 2005-06, which was increased to ₹.52 crore in 2006-07. It slightly increased to ₹.65 crore in 2007-08. It further increased to ₹.83 crore in 2008-09. Finally it reached the highest level at ₹.107 crore in 2009-10. Above analysis shows that the company should try to reduce burden or borrowed funds.
Payment to Shareholder towards Net Value Added increased trend during the year 2005-06 to 2009-10. It was the highest level at 20.47 percent in 2009-10. It was the lowest level at 7.92 percent in 2005-06. It was 8.70 percent in 2006-07, which was 9.58 percent in the year 2007-08. And 8.56 percent in 2008-09. The absolute amount of Payment to Shareholder in form of dividend was ₹.661 crore in 2005-06 which was the lowest level. ₹.1125 crore in 2006-07. It increased ₹.1370 crore in 2007-08. It achieved the highest level at ₹.3931 crore in 2008-09. And finally it was to ₹.2429 Crore in 2009-10. As far as shareholder point of view amount of dividend regularly increased year by year, simple reason is interest liabilities are decreases and more funds and profit are available to the shareholder.
The percentage of **Retained In Business** to **Net Value Added** fluctuating trend during the period of study. It was the highest level at **27.83** percent in 2005-06. It decreased to **22.53** percent in 2006-07, **24.89** percent in 2007-08. It further decreased to **22.67** percent in 2008-09. Finally it decreased to **12.65** percent in 2009-10. The absolute figure of Retained In Business increasing trend during year 2005-06 to 2009-10. In 2009-10 it slightly decreased. It ranged between **₹.2322** crore in 2005-06 to **₹.3646** crore in 2008-09. It was **₹.2913** crore in 2006-07. It increased to **₹.3418** in 2007-08. It slightly decreased to **₹.2429** crore in 2009-10. As far as the above analysis is concerned, it may be conclude that the highest percentage of **Net Value Added** gone to Retained In Business every year during the study period. It reveals from this analysis that company transferred more amount to reserves and surplus. Every year during the period of study.

4.10 **Testing Of Hypothesis of the Study TCS**

The following hypotheses are framed for this Research study:

**Null Hypothesis** ($H_0$)

1. There is no significant relation between Sales and Gross Value Added of TATA Consultancy Services Ltd
2. There is no significant relation between Sales and Net Value Added of TATA Consultancy Services Ltd

Alternative Hypothesis \((H_1)\)

1. There is significant relation between Sales and Gross Value Added of TATA Consultancy Services Ltd

2. There is significant relation between Sales and Net Value Added of TATA Consultancy Services Ltd

A coefficient of correlation is calculated between two variables Sales \((X)\) and Gross value added \((Y)\) it is that shows higher degree and Net value added \((Z)\)

Testing hypothesis 1

A coefficient of correlation is calculated between two variables Sales \((X)\) and Gross value added \((Y)\) it is \(r_1(x, y) = 0.9749\) that shows higher degree correlation between sales and Gross Value Added. Significance of correlation will also be tested through Student T-test as:

\[
T (\text{cal}) = 7.58
\]

\[
T (\text{tab}) = 2.31 \text{ at 5\% level of significance.}
\]

Calculated value of \(T_c = 7.58\) which is more as compared to critical value of \(T_t = 2.31\) at 5\% level of significance. Hence, null hypothesis rejected that means there is significant correlation between Sales and Gross Value Added.

Testing of hypothesis 2

A coefficient of correlation is calculated between two variables Sales \((X)\) and Net value added \((Z)\) it is \(r_2(x, z) = 0.9740\) that shows higher degree correlation between sales and Net value added. Significance of correlation will also be tested through Student T-test as:

\[
T (\text{cal}) = 7.45
\]

\[
T (\text{tab}) = 2.31 \text{ at 5\% level of significance.}
\]

Calculated value of \(T_c = 7.45\) which is more as compared to critical value of \(T_t = 2.31\) at 5\% level of significance. Hence, null hypothesis rejected that means there is significant correlation between sales and Net Value Added.

One of our hypothesis that Value Added generation and application are ever during the study will be proved, because as per during the study period generation of
Value Added marked that Net Value Added 230.16% in the year of 2009-10, due to charges in the various segment of revenue and control on cost of bought in materials. The main reason is behind on it company which was the highest figure of Net Value Added for the study period higher growth in Net Value Added during the year of study is attributable to the optimum utilization of companies, improvement in operation efficiencies and successful marketing of products.
ANALYSIS OF VALUE ADDED STATEMENT OF RELIANCE INDUSTRIES LTD.

The value added statement of Reliance Industries Ltd. has been analysed in two parts viz. Generation of Value Added and application of Value Added.

THE GENERATION OF VALUE ADDED

Table-4.7 shows that the Generation of Value Added reveals the indices of sales turnover marked a continuous increases throughout the period of study from 2005-06 to 2009-10. It was the lowest level at ₹2,90938 crore in 2005-06, ₹120431 crore in 2006-07, ₹143005 crore in 2007-08, it further increased to ₹155789 crore in 2008-09, and finally it achieved the highest at ₹211727 crore in 2009-10. The percentage of Sales Turnover towards Total Revenue showed it range between 94.87 percent in 2009-10 to 99.95 percent in 2005-06. It was It tested a continuous decreasing throughout the period of study except in the 2008-09. The above analysis shows that company increased their production capacity and lunch a new product in marked.

The percentage of Other Income towards Total Revenue showed that it fluctuating trend during the period of study. It was 1.05 percent in 2005-06, it decreased to 0.27 percent in 2006-07 (Lowest), it further increased at 4.63 percent in 2007-08 and finally it reached the highest level at 5.13 percent in 2009-10. The absolute figure of other income that it ranged between ₹323 crore in 2006-07 to ₹11450 crore in 2009-10. It was ₹966 crore in 2005-06, it decreased to ₹6947 crore in 2007-08. And finally it reached to ₹1295 crore in 2008-09.

The absolute figure of Cost of Bought – In Goods and service from outsider continuously increased the period of study. Its proportion to Total Revenue also continuously increased except in the year 2009-10. It was 74.90 percent in 2005-06, which was increased to 75.61 percent in 2006-07, 76.00 crore in 2007-08, 82.27 percent in the year 2008-09 its achieved the highest level and it slightly decreased to 79.03 percent in the year 2009-10. However, the absolute figure of cost of bought in goods and service from outsiders was the lowest level at ₹68830 crore in 2005-06. It was increased to ₹91304 crore in 2006-07. It was ₹113969 crore in 2007-08. It further increased to ₹129233 crore in 2008-09 and finally it achieved the highest level at ₹175759 crore in 2009-10. In separately the Cost of Bought – In Goods & Cost of Service. The percentage
of Cost of Bought in material ranged between 67.15 percent in 2005-06 to 77.12 percent in 2008-09. The absolute figure of cost of bought in material was ₹6,171.2 crore in 2005-06 its the lowest level it continuously increased year to year and finally it reached at ₹1,674.18 crore in 2009-10. The percentage of cost of service ranged between 4.01 percent in 2009-10 to 7.75 percent in 2005-06. The absolute figure of cost of service marked fluctuating trend during the period of study. It ranged between ₹7,118 crore in 2005-06 to ₹8,944 crore in 2009-010.

The portion of Gross Value Added to Total Revenue fluctuating trend during the period of study. It ranged between 17.73 percent in 2008-09 to 25.11 percent in 2005-06. It was 24.99 percent in 2006-07, which was 24.00 percent in 2007-08 and 21.25 percent in 2009-10. The absolute figure of Gross Value Added continuously increased except in the year 2008-09. it was ₹2,307.44 crore in 2005-06 ₹2,945.00 crore in 2006-07, ₹3,598.34 crore in 2007-08, it decreased to ₹2,785.11 crore in 2008-09, finally it achieved the highest level at ₹4,741.86 crore in 2009-10.

The index number of Net Value Added was 100.00 in 2005-06, being the base year, which was increased to 125.40 in 2006-07, which was increased to 158.23 in 2007-08, Decreased by 113.01 in 2008-09. It increased to 185.06 in 2009-10. The absolute figure of Net Value Added shows increasing trend throughout during year 2005-06 to 2009-10. It come down in 2008-09.

**CHART – 4.19**
The lowest figure of Net Value Added was ₹13579 crore in 2005-06, which was increased to ₹24551 crore in 2006-07, ₹30979 crore in 2007-08, ₹22126 crore in 2008-09, it was the highest level at ₹36409 Crore in the year 2009-10. The Highest growth in Net Value Added then later year of study is attributable to the optimum utilisation of capacities, improvement in operating efficiencies and successful marketing of products.

The portion of Depreciation to Total Revenue continuously increasing trend during the year 2005-06 to 2009-10. It ranged between 4.93 percent in 2009-10 to 3.34 percent in 2007-08. The absolute amount of Depreciation continuously increasing trend during the period of the study. It was the lowest level at ₹3495 crore in 2005-06, it increased to ₹24551 crore in 2006-07, ₹30979 crore in 2007-08. It come down to ₹22126 crore in 2008-09, finally it reached the highest level at ₹36409 crore in 2009-10 as amount of Depreciation increase its positive for liquidity point of view.

♥ APPLICATION OF VALUE ADDED

Above Table-4.8 reveals that application of Value Added.

The analysis of application of Net Value Added shows that the more significant part of value added was applied for Contribution to Government.

Chart – 4.20
As the percentage of the **Payment to Employees** towards **Net Value Added** was **7.64** percent in 2005-06. It increased to **10.55** percent in 2006-07, it was **8.84** percent in 2007-08. It further increased to **13.64** percent in 2008-09. Finally it was level at **7.67** percent in 2009-10. The absolute figure of Contribution to Government fluctuating trend during the period of study, it was **₹. 1469** crore in 2005-06, it increased to **₹. 2591** crore in 2006-07, **₹. 2738** Crore in the year 2007-08 it increased the highest level at **₹. 3018** crore in 2008-09. And finally it decreased to **₹. 2791** crore in 2009-10.

**CHART – 4.21**

Secondly, the significant part of **Net Value Added** was applied for As the percentage of the **Contribution to Government towards Net Value Added** was countinuously fluctuating trend during the period of study. It ranged between **25.46** percent in 2009-10 to **51.53** percent in 2005-06. It decreased to **38.44** percent in 2006-07. **41.88** and **34.83** percent in the years 2007-08 and 2008-09 respectively. The absolute figure of **Payment to Employees** fluctuating trend during the period of study It ranged between **₹. 7707** crore in 2005-06 to **₹. 12973** crore in 2007-08. It was **₹. 10089** crore in 2005-06. It decreased to **₹. 9438** crore in 2006-07. Finally it reached to **₹. 9269** crore in 2009-10. That shows during that period a constant growth followed by the company.
The next major portion was consumed **Payment to Capital Providers**. It has divided two parts firstly, **Payment to Lender** in form of **interest** and secondly, **Payment to Shareholders** in form of **dividend**.

**CHART – 4.22**

**Payment to Interest of Lenders** marked fluctuating trend during the year 2005-06 to 2009-10. It was **4.84** percent in 2005-06. It increased to **5.47** percent in 2006-07, **4.06** percent in 2007-08. It increased to the highest level at **9.56** percent in 2008-09 after then it decreased to **5.45** percent in 2009-10. The absolute amount of **Payment to Lender** fluctuating trend during the period of study. I.e. 2005-06 to 2009-10. It was **₹.948** crore in 2005-06 it increased to **₹.1344** crore in 2006-07 it slightly decreased to **₹.1259** crore in 2007-08. It was the highest level at **₹.2116** crore in 2008-09. Finally it was **₹.1984** crore in 2009-10. That reason why increased to borrowe fund in year 2008-09.

The portion of **Payment to Shareholders** to **Net Value Added** fluctuating trend during period of study. It was **8.12** percent in 2005-06, **6.69** percent in 2006-07. It further decreased to **6.16** percent in 2007-08. It reached the highest level at **10.03** percent in 2008-09. and finally it slightly decreased to **6.68** percent in the year 2009-10. The absolute
amount of Payment to Shareholders increasing trend during period of study. It was ₹ 1589 percent in 2005-06. It increased to ₹. 1642 crore in 2006-07 ₹. 1908 crore in 2007-08. It further increased to ₹. 2219 crore in 2008-09 and finally it reached at the highest level at ₹. 2431 crore in 2009-10.

Above analysis shows that share holders point of view amount of divided in term of amount and percentage in both the respect increases gradually year by year simple reason is interest liabilities are decreased and more funds and profit are available to the shareholders.

The percentage of Retained in Business to Net Value Added continuously increasing trend during the period of study except in the year 2008-09. It was 28.01 percent 2005-06, 28.01 percent and 38.84 percent in 2006-07 and 2007-08 respectively. It further increased to 39.06 percent in 2008-09. It increased to 54.75 percent in 2009-10(highest). The absolute figure of Retained In Business increasing trend during year 2005-06 to 2009-10. In 2008-09 it slightly decreased. It was ₹. 5484 crore in 2005-06 ₹. 9536 crore in 2006-07. It increased to ₹. 12101 crore in 2007-08. It came down to ₹. 7066 crore in 2008-09 and it further increased the highest level at ₹. 19934 crore in 2009-10.

CHART – 4.23
The above analysis is described that the highest percentage (51.92%) of Net Value Added gone to retain in business every year during the period of study. It revels from this analysis that company transfer more amount to reserve and surplus. Every year during period of study but in 2008-09 borrowed amount of retain in business slightly decreased, thus overall condition of company is better.

4.13 TESTING OF HYPOTHESIS OF THE STUDY

The following hypotheses are framed for this Research study:

**Null Hypothesis** (H₀)

1. There is no significant relation between Sales and Gross Value Added of Reliance Industries Ltd.
2. There is no significant relation between Sales and Net Value Added of Reliance Industries Ltd.

**Alternative Hypothesis** (H₁)

1. There is significant relation between Sales and Gross Value Added of Reliance Industries Ltd
2. There is significant relation between Sales and Net Value Added of Reliance Industries Ltd

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added(Y) it is that shows higher degree and Net value added (Z)

Testing hypothesis 1

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added(Y) it is $r_{1}(x, y) = 0.90$ that shows higher degree correlation between sales and Gross Value Added. Significance of correlation will also be tested through Student T-test as:

$T (cal) = 3.57$

$T(tab) = 2.31$ at 5% level of significance.

Calculated value of $Tc = 3.57$ which is more as compared to critical value of $Tt = 2.31$ at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between Sales and Gross Value Added.

Testing of hypothesis 2
A coefficient of correlation is calculated between two variables \( \text{Sales (X)} \) and \( \text{Net value added (Z)} \) it is \( r_2(x, z) = 0.86 \) that shows higher degree correlation between sales and Net value added. Significance of correlation will also be tested through Student T-test as:

\[
T (\text{cal}) = 2.92
\]

\[
T(\text{tab}) = 2.31 \text{ at 5\% level of significance.}
\]

Calculated value of \( T_c = 2.92 \) which is more as compared to critical value of \( T_t = 2.31 \) at 5\% level of significance. Hence, null hypothesis rejected that means there is significant correlation between sales and Net Value Added.\(^9\)

One of our hypothesis that Value Added generation and application are ever during the study will be proved, because as per during the study period generation of Value Added marked that Net Value Added 185.96\% in the year of 2009-10, due to charges in the various segment of revenue and control on cost of bought in materials. The main reason is behind on it company the highest growth in Net Value Added then later year of study is attributable to the optimum utilisation of capacities, improvement in operating efficiencies and successful marketing of products.
Analysis & Interpretation of Value Added Statement

4.15 ANALYSIS OF VALUE ADDED STATEMENT OF TATA MOTORS LTD.

The Value Added Statement of TATA Motors Ltd. has been analyzed in two years viz. Generation of Value Added and Application of Value Added.

THE GENERATION OF VALUE ADDED

Table 4.9 shows that the Generation of Value Added revels that the indicate of Sales Turnover marked a continuous increase throughout the period of study from 2005-06 to 2009-10. It was ₹.26455 crore in 2005-06. ₹.36566 crore in 2006-07. It increased to ₹.39953 crore in 2007-08. It further increased to ₹.72037 Crore in 2008-09. And finally it reached at highest level at ₹.99971 crore in 2009-10. The percentage of Sales Turnover to Total Revenue was 97.03 percent in 2005-06. The highest level at 99.58 percent in 2006-07. It decreased to 99.33 percent in 2007-08. It further decreased to 96.71 percent in the year 2008-09. And finally it reached lowest level 96.57 percent in 2009-10. Above analysis shows that amount of sales turnover continuously increases that company innovative products developments and how products lunch in market.

The percentage of Other Income fluctuating trend during the period of study. It ranges between 0.42 percent in 2006-07 to 3.43 percent in 2009-10. The absolute figure of other income fluctuating trend during the period of study. It ranges between ₹.153 crore in 2006-07 to ₹.3555 crore in 2009-10.

The proportion of Cost of Bought In Material & Service to Total Revenue on whole marked that it fluctuating trend during the yeare 2005-06 to 2009-10. It was 67.78 percent in 2005-06. It increased to 70.62 percent in 2006-07. It was 70.05 percent in 2007-08. It reached the highest level at 81.91 percent in 2008-09. Finally it’s slightly decreased to 78.36 percent 2009-10. The absolute figure of Cost of Bought In Material & Service to Total Revenue on whole marked that it increasing trend during the year 2005-06 to 2009-10. It range between the lowest level at ₹.18480 Crore in the year 2005-06 to the highest level at ₹.81144 Crore in the year 2009-10.

Analysis the Cost of Bought In Material & Service separately the Cost of Material range between 61.54 percent in 2009-10 to 65.34 percent in 2006-07. It was 64.40 percent in 2005-06, 62.82 percent in 2006-07 and 64.35 percent in 2008-09. The absolute amount of Cost of Bought In Material sort increasing trend during the period of study. It was ₹.17559 crore in 2005-06,
र.23990 crore in 2006-07. It further increased to र.25268 crore in 2007-08. It was र.47931 crore in the year 2008-09 and finally it reached the highest level at र.63705 crore in the year 2009-10.

The percentage of Cost of Services fluctuating trend during the period of study. It ranged between 4.26 percent in 2005-06 to 17.56 percent in 2008-09. However, The absolute figure of Cost of Services showed continuously increasing trend during the period of study. It was र.1161.52 crore in 2005-06. It increased to र.1940 crore in 2006-07. It further increased to र.2906 crore in 2007-08. र.13083 Crore in the year 2008-09. The highest level at र.63705 crore in 2009-10.

The high proportion of cost of bought in goods and services from outsiders indicate that inefficantly in use of rawmetrial and servises, but moreover company established new branches for nano car in sanand, that why increasing product expenses inching in 2008-09. That benefit will give near year.

The Gross Value Added showed an increasing trend during the period of study. The ratio of Gross Value Added to Total Revenue continuously decreasing trend during the period of study except in the year 2009-10. It ranged between 18.09 percent in 2008-09 to 31.34 percent in 2005-06. The absolute amount of Gross Value Added marked continuously an increasing trend during study of period. It was the lowest level at र.8543 Crore in the year 2005-06. र.11159.18 crore and र.12045.89 crore in 2006-07 and 2007-08 respectively. It increased to र.13471 Crore in the year 2008-09 and finally it reached the highest level at र.22382 crore in 2009-10. Higher amount of Gross Value Added showed social performance toward different groups.
The index number of Net Value Added was 100.00 in 2005-06 being the base year, which was increased to 132.21 in 2006-07. Followed by 142.22 in 2007-08. It was increased to 159.05 in 2008-09 and finally it achieved the highest level at 233.52 in 2009-10. Higher growth in Net Value Added in year 2005-06 to 2009-10. The absolute figure of Net Value Added shows increasing trend throughout the study period i.e. from 2005-06 to 2009-10. The lowest figure of Net Value Added was ₹.7921 crore in 2005-06, which was increased to ₹.10471 crore in 2006-07, ₹.11264 crore in 2007-08, ₹.12597 crore in 2008-09, ₹.18495 crore in 2009-10. which was highest figure of Net Value Added for study period higher growth rate in Net Value Added during the later year of study is attributable to the optimum utilization of capacities improvement in operating efficiencies and now innovation and successful marketing products.

The percentage of Depriciation to Total Revenue continuously fluctuating trend during the period of study it ranged between 1.17 percent in 2008-09 to 3.75 percent in 2009-10. The amount of Depriciation continuously increasing trend during the period of study. It was ₹.623 crore in 2005-06, ₹.688 crore in 2006-07. It further increased to ₹.
.782 crore in 2007-08. It was ₹.875 Crore in the year 2008-09 and finally it reached to highest level at ₹.3887 crore in 2009-10. As above mentioned analysis concised that its positive for liquidity point of view.

**APPLICATION OF VALUE ADDED :**

According to Table 4.10 shows that application of value added.

The analysis of application value added revals that more significant part of value added was applied for **Payment to Employees**.

**CHART – 4.25**

As the percentage of the **Payment to Employees** towards **Net Value Added** was 22.44 percent in 2005-06, it increased to 23.07 in 2006-07, 24.37 percent in 2007-08, the highest level at 57.93 percent in 2008-09. Finally it reached at 47.32 percent in 2009-10. The absolute amount of **Payment to Employees** was the lowest level at ₹.1777 crore in 2005-06.it increased to ₹.2416 crore in 2006-07. ₹.2745 crore in 2007-08. It further increased ₹.7297 crore in 2008-09. It finally reached the highest Payment to Employees to ₹.8752 crore in 2009-10. Above analysis shows that a constant growth followed by the company.
The second portion of Net Value Added in Tata Motor Ltd. was utilized for Contribution to Government in form of excised duty and taxes. The percentage of Contribution to Government towards Net Value Added decreasing trend during period of study. It was the highest level at 55.74 percent in 2005-06. It decreased to 51.79 percent in 2006-07. It further decreased to 48.23 percent to 2007-08, it was 26.71 percent in 2008-09. And finally it reached the lowest level at 23.16 percent in the year 2009-10. The amount of contribution of government continuously increasing during year 2005-06 to 2009-10 except in the year it’s come down in 2008-09. It was ₹4415 crore in 2005-06, ₹5423 crore in 2006-07. It increased to ₹5433 crore in 2007-08. It reached to the lowest level at ₹3365 crore in 2008-09 and finally it came down to ₹4284 Crore in the year 2009-10. Above analysis that company has good Contribution to Government in the year 2005-06 55.74% and ₹5433 Crore the highest contribution in term of amount contribution to government in 2007-08.

The next major portion was consumed for payment to capital provider it has divided in two parts. Firstly Payment to Lender in form of interest and secondly Payment to Shareholder in form of dividend.
Payment to Interest of Lenders marked continuously increasing trend during the period of study and the percentage of Payment to Lender also increased year to year. It was 3.11 percent in 2005-06. 6.57 percent in 2006-07. It further increased to 6.60 percent in 2007-08. It achieved level at 15.33 percent in 2008-09. And finally it achieved the highest level at 15.94 percent in 2009-10. The absolute figure of the Payment to Interest of Lenders was ₹. 246 crore in 2005-06, which was increased to ₹.688 crore in 2006-07. ₹. 743 crore and ₹.1931 crore in 2007-08 and 2008-09 respectively, lastly it reached the highest level at ₹.1947 crore in 2009-10.

Above analysis described that the company should try to reduce burden of borrowed funds because payment of interest to lender in terms of percentage of interest to lender in term of percentage amount its continuously increased year to year.
The ratio of Payment to Shareholder towards Net Value Added decreasing trend during the period of study. It was the highest level at 6.29 percent in 2005-06 after it decreasing remaining year 5.52 percent in 2006-07. It decreased to 5.14 percent and 2.47 (lowest) percent in 2007-08 and 2008-09 respectively. Finally it reached level at 4.64 percent in 2009-10. The absolute figure of Payment to Shareholder also decreasing trend during period of study. It ranged between ₹.312 crore in 2008-09 to ₹.859 crore in 2007-08, ₹.498 crore in 2005-06, ₹.578 crore in 2006-07.

As per as Shareholder point of view amount of dividend continuously decreasing trend year by year. Simple reason is interest liabilities are increasing in remaining year the borrowed fund year to year increasing that main reason.
The percentage of **Retained In Business** to **Net Value Added** increasing trend during the year 2005-06 to 2009-10, suddenly it came down and made loss in the year 2008-09. It increased to **12.43** percent in 2005-06, **13.05** percent in 2006-07, further increased the highest figure at **15.66** percent in 2007-08, it came down to make was (-**2.44**) percent in 2008-09. The absolute figure to retained in business increasing trend during year to year 2005-06 to 2009-10. It came down in 2008-09. It was **₹. 984** crore in 2005-06, it increased to **₹. 1366** crore and **₹. 1764** crore in 2005-06 and 2007-08 respectively. After then it made loss it mean it used of reserve and surplus. Finally it achieved the the highest level at **₹. 1653** Crore in the year 2009-10.

It may be concluded that company first four year continuously paid divided but in year 2008-09 it used to reserve, because it has established many branches and used to fund in development.

**4.16 Testing Of Hypothesis of the Study Tata Motors Ltd.**

The following hypotheses are framed for this Research study:

- **Null Hypothesis (H₀)**
1. There is no significant relation between Sales and Gross Value Added of TATA Motors Ltd.

2. There is no significant relation between Sales and Net Value Added of TATA Motors Ltd.

- **Alternative Hypothesis (H₁)**

1. There is significant relation between Sales and Gross Value Added of TATA Motors Ltd.

2. There is significant relation between Sales and Net Value Added of TATA Motors Ltd.

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added (Y) it is that shows higher degree and Net value added (Z)

**Testing hypothesis 1**

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added (Y) it is \( r_1(x, y) = 0.95 \) that shows higher degree correlation between sales and Gross Value Added. Significance of correlation will also be tested through Student T- test as:

\[ T (\text{cal}) = 5.27 \]
\[ T(\text{tab}) = 2.31 \text{ at 5\% level of significance.} \]

Calculated value of \( T_c = 5.27 \) which is more as compared to critical value of \( T_t = 2.31 \) at 5\% level of significance. Hence, null hypothesis rejected that means there is significant correlation between Sales and Gross Value Added.¹⁰

**Testing of hypothesis 2**

A coefficient of correlation is calculated between two variables Sales (X) and Net value added (Z) it is \( r_2(x,z) = 0.96 \) that shows higher degree correlation between sales and Net value added. Significance of correlation will also be tested through Student T- test as:

\[ T (\text{cal}) = 5.94 \]
\[ T(\text{tab}) = 2.31 \text{ at 5\% level of significance.} \]

Calculated value of \( T_c = 5.94 \) which is more as compared to critical value of \( T_t = 2.31 \) at 5\% level of significance. Hence, null hypothesis rejected that means there is significant correlation between sales and Net Value Added.¹¹
One of our hypothesis that Value Added generation and application are ever during the study will be proved, because as per during the study period generation of Value Added marked that Net Value Added 233.52% in the year of 2009-10, due to charges in the various segment of revenue and control on cost of bought in materials. The main reason is behind on it company increase their production and launch new product and which was highest figure of Net Value Added for study period higher growth rate in Net Value Added during the later year of study is attributable
4.18 ANALYSIS OF VALUE ADDED STATEMENT OF BHARAT HEAVY ELECTRICALS LTD.

The value added statement of Bharat Heavy Electricals Ltd. has been analysed in two parts viz. Generation of Value Added and application of Value Added.

- **THE GENERATION OF VALUE ADDED**

  **Table-4.11** shows that the Generation of Values Added reveals the indicates of sales turnover marked a continuous increased throughout the period of study from 2005-06 to 2009-10. It was the lowest level at ₹16037 Crore in 2005-06, ₹20753 Crore in 2006-07, ₹24011 crore in 2007-08, It further increased to ₹30481 Crore in the year 2008-09 and finally it achieved the highest at ₹36036 Crore in 2009-10. The percentage of Sales Turnover towards Total Revenue showed it ranged between 95.91 percent in 2007-08 to 97.91 percent in 2005-06. It was tasted fluctuating trend throughout the period of study. The above analysis shows that Company increases their production Capacity and lunch a new product in Global Market.

  The amount of other Income towards total Revenues showed a continuous increase throughout the period of study from 2005-06 to 2009-10. It ranged between the lowest level at ₹342 Crore in the year 2005-06 to the highest level at ₹1086 Crore in the year 2009-10. The percentage of other income towards total Revenue showed that it fluctuating trend during the period of study. It was 2.09 percent in 2005-06, it increased to 2.27 percent in 2006-07, it reached the highest level at 4.09 percent in 2007-08 it decreases to 3.25 percent in 2008-09 and it was 2.93 percent in 2009-10.

  The absolute figure of Cost of Bought In Goods & Service from outsider continuously increased the period of study. It’s proportion to total revenue also continuously increase except in the year 2009-10. It was 54.37 percent which was increased to 54.78 percent in 2006-07. 56.00 percent in 2007-08, it achieved the highest level at 65.39 percent in 2008-09 and finally it slightly decreased at 57.82 percent in the year 2009-10. However the absolute figure of cost of bought in material & service from outsiders was the lowest level at ₹9725 Coror in 2005-06. It was increased to ₹11633 Crore in 2006-07. It was ₹14020 Crore in 2007-08, It further increased to ₹20590 Crore in 2008-09 and finally it achieved the highest level at ₹21465 Crore in 2009-10.
In separately the cost of Bought In Goods & cost of Service. The percentage of cost of Bought in Material ranged between 40.32 percent in 2005-06 to 49.51 percent in 2008-09. The absolute figures of cost of bought in material was ₹7099 crore in 2005-06 it’s the lowest level it continuously increased year to year and finally it reached at ₹17753 Crore in 2009-10. The percentage at cost of service ranged between 10 percent in 2009-10 to 16.03 percent in 2005-06. The absolute figure of cost of service marked continuously increasing trend during the period of study except year 2009-10. It ranged between ₹2626 in 2005-06 to ₹5003 percent in 2008-09.

The portion of Gross Value to total Revenue Fluctuating trend during the period of study. It ranged between 34.60 percent in 2008-09 to 45.22 percent in 2006-07. The absolute figure of Gross value Added Continuously increases except in the year 2008-09. It was ₹6654 Crore in 2005-06. It was ₹9602 Crore in 2006-07, ₹11014 Crore in 2007-08. It decreased to ₹10895Crore in 2008-09, and finally it reached the highest level at ₹15657 Crore in 2009-10.

**Chart-4.30**

![GVA & NVA of Bharat Heavy Electrical Ltd.](chart)

The index number of Net Value Added was 100.00 in 2005-06 being the basic year, which was increased to 146.02 in 2006-07, which was increased to 167.25 in 2007-08, decreased by 164.81 in 2008-09. Finally it reached the highest level at 237.19 in the
year 2009-10, the absolute figure of Net Value Added shows increasing trend throughout during year 2005-06 to 2009-10. It came down in the year 2008-09.

The lowest figure of Net Value Added was ₹6408 Crore in 2005-06, which was increased to ₹9357 Crore in 2006-07, ₹10717 Crore in 2007-08, it slightly decreased to ₹10561 Crore in 2008-09, It reached the highest level at ₹15199 Crore in 2009-10. The highest greatly in Net values Added then later year of study its attributable to the optimum Utilization of capacities, improvement in operating efficiencies and successful marketing at products.

The portion of Depreciation to Total Revenues trend during the year 2005-06 to 2009-10. It ranged between 1.06 percent in year 2008-09 to 1.50 percent in 2005-06. The absolute amount Depreciation Continuously increasing trend during the year 2005-06 to 2009-10 except in the year 2006-07. It was ₹246 Crore in 2005-06, It was the lowest level at ₹245 Crore in 2006-07, It increased ₹207 Crore in 2007-08, It further increased ₹334 Crore in 2008-09. Finally it reached the highest level at ₹458 Crore in the year 2009-10. The amount of Depreciation increases its positive for liquidity point of view.

**Application of Value Added:**

Above Table 4.12 reveals that application of value added.

The Analysis of application of value added reveals that the more significant part of value Added applied for payment of Employees.

![Chart-4.31](image-url)
As the percentage of the payment to Employees towards Net value Added was 29.32 percent in 2005-06, it decreased to 25.30 percent in 2006-07, 24.28 percent in 2007-08. It further increased to 28.32 percent in 2008-09. And finally it reached and increased to 42.43 percent in 2009-10. The absolute figure of payment to Employees was ₹1879 Crore in 2005-06. It increased to ₹2367 Crore in 2006-07. ₹2602 Crore in 2007-08. It further increased to ₹2991 Crore in 2008-09 and finally it reached the highest level at ₹6449 Crore in 2009-10.

**Chart-4.32**

The second part of Net value Added in **Bharat Heavy Electrical Ltd.** was utilized for contribution to Government in form of excise duty and taxes the percentage of Contribution to Government towards Net value Added was 14.53 percent in 2005-06. It decreased to 15.00 percent 2006-07. 15.79 percent in 2007-08. It was the highest level at 18.38 percent 2008-09 and finally it reached to 16.57 percent in 2009-10. The absolute figure of contribution to Government continuously increasing trend during the period of study. It was ₹931 Crore in 2005-06. ₹1404 Crore in 2006-07. It increased to ₹1692 Crore in 2007-08. It was further increased ₹1941 Crore in 2008-09. And finally it reached the highest level at ₹2518 Crore in 2009-10.
The next major portion was consumed for payment to capital provider it has divided in two parts. Firstly payment to Lander in form of Interest and secondly payment to shareholder in form of dividend.

**Chart-4.33**

Payment to interest to Lenders marked decreasing trend during the period of study. It was 0.92 percent in 2005-06, 0.46 percent in 2006-07, 0.32 percent and 0.29 percent in 2007-08 and 2008-09 respectively. And finally it reached at 0.23 percent in 2009-10. The absolute amount of the payment of Interest to Landers was ₹59 Crore which the highest level paid interest to Lander in 2005-06 which was decreased to ₹43 Crore in 2006-07. It further decreased to ₹34 Crore in 2007-08 and ₹31 Crore in 2008-09. And finally it slightly increased to ₹35 Crore in 2009-10. Above analysis showing that the company should try to reduce Burdon or borrowed fund year by year.
Payment to shareholder towards Net Value Added throughout increasing trend during the period of study 2005-06 to 2009-10. It ranged between ₹.355 Crore in 2005-06 to ₹.1141 the highest level achieved in year 2009-10. In between ₹.600 Crore in 2006-07. It was increased ₹.747 Crore in 2007-08 and it further increased ₹.832 Crore in 2008-09. The percentage of payments to shareholder towards Net Value Added throughout increasing trend during the period of study 2005-06 to 2009-10. It ranged between the lowest level at 5.54 percent in 2005-06 to the highest level at 7.87 Crore in 2008-09. In between 6.41 percent in 2006-07. It increased to 6.97 percent in 2007-08 and finally it reached at 7.51 in 2009-10.

Above Analysis shows as for as point of view amount of dividend regularity increased year by year, simple reason is Interest Liabilities are decreases and more funds and profit are available to the shareholder.
The percentage of Retained In Business to Net value Added Fluctuating trend during level at 52.83 percent in 2006-07. It was 49.63 percent in 2005-06. It was 52.65 percent in 2007-08 and 45.13 percent in 2008-09. Finally it reached at 33.27 percent in 2009-10. The absolute figure at Retained in Business increasing trend during the period of Study except in year 2008-09. Which it slightly decreased before it achieved the highest level. It ranged between ₹3184 Crore in 2005-06 to ₹5642 Crore in 2007-08. It was ₹4943 Crore in 2006-07. It increases to ₹4766 Crore in 2008-09 and it reached at ₹5056 Crore in 2009-10.

As for as the above analysis is concerned, it may be concluded, that the highest percentage of Net value Added gone to Retained In Business every year during the study period. It reveals from this analysis that company transfer more amount to reserves and surplus. Every year during the period of study.

4.19 Testing Of Hypothesis of the Study Bharat Heavy Electricals Ltd.

The following hypotheses are framed for this Research study:

- **Null Hypothesis** (H₀)

  1. There is no significant relation between Sales and Gross Value Added of Bharat Heavy Electricals Ltd.
2. There is no significant relation between Sales and Net Value Added of Bharat Heavy Electricals Ltd.

- **Alternative Hypothesis** \( (H_1) \)

1. There is significant relation between Sales and Gross Value Added of Bharat Heavy Electricals Ltd.
2. There is significant relation between Sales and Net Value Added of Bharat Heavy Electricals Ltd.

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added (Y) it is that shows higher degree and Net value added (Z)

**Testing hypothesis 1**

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added (Y) it is \( r_1(x, y) = 0.94 \) that shows higher degree correlation between sales and Gross Value Added. Significance of correlation will also be tested through Student T-test as:

\[
T (\text{cal}) = 4.77
\]

\( T(\text{tab}) = 2.31 \) at 5% level of significance. Calculated value of \( T_c = 4.77 \) which is more as compared to critical value of \( T_t = 2.31 \) at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between Sales and Gross Value Added.\(^{12}\)

**Testing of hypothesis 2**

A coefficient of correlation is calculated between two variables Sales (X) and Net value added (Z) it is \( r_2(x, z) = 0.93 \) that shows higher degree correlation between sales and Net value added. Significance of correlation will also be tested through Student T-test as:

\[
T (\text{cal}) = 4.38
\]

\( T(\text{tab}) = 2.31 \) at 5% level of significance. Calculated value of \( T_c = 4.83 \) which is more as compared to critical value of \( T_t = 2.31 \) at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between sales and Net Value Added.\(^{13}\)
One of our hypothesis that Value Added generation and application are ever during the study will be proved, because as per during the study period generation of Value Added marked that Net Value Added **237.19% in the year of 2007-08**, due to charges in the various segment of revenue and control on cost of bought in materials. The main reason is behind on it company increase the highest greatly in Net values Added then later year of study its attributable to the optimum Utilization of capacities, improvement in operating efficiencies and successful marketing at products.
4.21 ANALYSISI OF VALUE ADDED INDIA OIL CORPORATION LTD.

The value added statement of India Oil Corporation Ltd. Has been analysed in two parts viz. Generation of Value Added and application of Value Added.

**THE GENERATION OF VALUE ADDED:**

The Generation of value Added reveals that Table 4.1 The percentage of Total Sales including Exciseduty towards total revenue marked fluctuating trend throughout of period of study from 2005-06 to 2009-10. It ranged between 98.49 percent in 2006-07 to 100.80 percent in 2008-09. (Highest) It was 99.30 percent in 2005-06. It was 98.49 percent in 2006-07 (lowest). It slightly increased to 98.81 percent in 2007-08. It reached at 98.72 percent in 2009-10. The absolute figures of sale product, Petrol Chemicals marked a continuously increased throughout the period of study from 2005-06 to 2009-10. It was the lowest figure at ₹2,08,641 Crore in 2005-06. It was ₹2,55,535 Crore in 2006-07. It increased to ₹2,87,655 Crore in 2007-08. It further increased to ₹3,43,241 Crore in 2008-09. (Highest) And finally it reached to ₹3,05,737 Crore in 2009-10.

The absolute figure of cost of Bought In Material & Service from outsiders continuously increased the period of study. Its proportion to total Revenue also continuously increased except in the year 2006-07. It ranged between 72.36 percent in 2006-07 to 78.48 percent in 2008-09. It was 73.59 percent in 2005-06. It was 74.47 percent in 2007-08. It further increased to 76.93 percent in 2009-10. The absolute figure of cost of bought in Material and service from outsiders was the lowest level at ₹15,4618 crore in 2005-06. It was increased to ₹1,87,751 crore in 2006-07. It was ₹21,6793 Crore in 2007-08. It further increased to ₹26,7222 Crore in 2008-08 and finally it slightly decreased to ₹2,38,269 Crore in 2009-10.

In separately the cost of Bought-in-Material & Cost of Service. The percentage of cost of Bought in Material ranged between 67.81 percent in 2005-06 to 74.28 percent in 2008-09. The absolute figure of cost of bought in material was ₹14,3659 Crore in 2005-06 it’s the lowest level it continuously increased year to year except in the year 2009-10. It reached at ₹25,2919 crore in the year 2008-09 it’s the highest level achieved. The percentage of cost of service ranged between 4.20 percent in the year 2008-09 to 5.22 percent in 2005-06. The absolute figure of cost of service marked continuously increasing
trend during throughout period of study. It ranged between ₹10959 Crore in 2005-06 to ₹15135 crore in 2009-10.

The portion of Gross Value Added to total Revenue first three year increasing trend after its decreasing trend. It was ₹55484 Crore in 2005-06 (lowest) It increased to ₹71709 Crore in 2006-07. It further increased to ₹74312 and achieved the highest level. After It decreased to ₹73290 Crore in 2008-09 and finally slightly decreased to ₹71468 crore in 2009-10.

**Chart-4.36**

The index number of Net Value Added was 100.00 in 2005-06, being the base year, which was increased to 129.86 in 2006-07. Which was increased to 134.64 in 2007-08. Followed by 132.26. And finally it decreased to 128.35 in 2009-10. The absolute figure of Net Value Added shows increasing trend throughout during year 2005-06 to 2007-08 after it decreased during the year 2008-09 to 2009-10. The lowest figure of Net Value Added was ₹52934 Crore in 2005-06., which was increased to ₹68739 Crore in 2006-07, ₹71270 Crore it achieved the highest level and after it come down ₹70101 Crore and ₹67943 Crore in the year 2008-09 and 2009-10 respectively. It may be concluded that the Highest growth in Net Value Added. Then later year of study is attributable to the optimum utilization of capacities, improvement in operating
efficiencies now demand of Petrol Chemicals Product days increasing that why growth Rate of Net Value Added increased.

The percentage of Depreciation showed fluctuating trend during the period of study. It ranged between 0.99 percent 2008-09 to 1.21 percent in the year 2005-06. It was 1.14 percent in 2006-07, 1.05 percent in 2008-09. At last it reached at 1.15 percent in 2009-10. However the absolute amount of Depreciation registered an increasing trend during the period of study. It was ₹2550 Crore in 2005-06. (lowest) It was ₹2970 Crore in 2006-07., ₹3042 Crore in 2007-08. It increased to ₹3189 Crore in 2008-09. And finally it reached at ₹3555 Crore in 2009-10, its achieved Highest level. Above analysis shows that its positive for liquidity point of view. Especially amount of Depriciation increased significantly due to expansion and development activities it shows significant contribution by the company towards society.

**APPLICATION OF VALUE ADDED:**

It is evident from **Table-4.14** shows that application at value added.

The analysis of application of value added reveals that the more significant part of value added was applied for payment of Employees.

**Chart-4.37**
As the percentage of the payment to Employee towards Net value Added was It was the lowest level at 4.16 percent in 2005-06. It increased to 4.22 percent in 2006-07. It further increased to 4.51 percent and 8.44 percent in 2007-08 and 2008-09 respectively. And finally it reached the highest level at 8.98 percent in 2009-10. The absolute figure of payment to Employee was ₹2203 Crore in 2005-06 (lowest). It increased to ₹2902 Crore in 2006-07. ₹3212 Crore in 2007-08, it further increased to ₹5917 Crore in 2008-09 and finally it reached the highest level at ₹6047 Crore in 2009-10.

![Chart-4.38](image)

The second portion of Net Value Added in Indian Oil Corporation was utilized for contribution to Government in form of excise duty and taxes the percentage of contribution to Government towards Net Value Added was 47.68 percent in the year 2005-06 its highest level. It decreased to 44.44 percent in 2006-07. It increased to 45.82 percent in 2007-08. It decreased to 40.88 percent in 2008-09. And finally it was 45.11 percent in 2009-10. The absolute figure of contribution to Government ₹25214 Crore in 2005-06 it lowest figure, It was ₹30549 Crore in 2006-07. It increased to ₹32655 Crore in 2007-08 (highest). It slightly decreased to ₹28659 Crore in 2008-09. And finally it reached at ₹30646 Crore in 2009-10.
The next major portion was consumed for payment to Capital provider it has divided in two parts firstly, payment to lender in form of Interest and secondly payment to shareholder in form of dividend.

Chart-4.39

Payment to Lenders of Indian Oil Corporation Ltd. (₹ in Crore)

Payment to Interest to Lender marked first four year continuously increasing trend during the year 2005-06 to 2008-09. After it came down in the year 2009-10. It was the lowest level at ₹1468 Crore in the year 2005-06. It was ₹2089 Crore in 2006-07. It increased to ₹2485 Core in 2007-08. It was the highest level at ₹4078 Crore in 2008-09. And finally it reached at ₹2063 Crore in 2009-10. The percentage of payment to lender towards Net Value Added. It was 2.77 percent in 2005-06 (lowest). 3.04 percent and 3.49 percent in the year 2006-07 and 2007-08 respectively. It was the highest level at 5.82 percent in 2008-09. And finally it reached 3.92 percent in 2009-10. Above analysis shows that the company increase borrowed fund and maximum use of borrowed capital at Last year company should try to reduce Burdon of borrowed funds.
Payment to Shareholders towards Net Value Added in fluctuating trend during the period of study the year 2005-06 to 2009-10. It ranged between 0.96 percent in 2007-08 to 4.68 percent in 2009-10. It was 2.82 percent in 2005-06. It was 1.33 percent in 2008-09. The absolute amount of payment to shareholder in form of dividend was ₹1434 Crore in 2005-06. It increased to ₹2268 percent in 2006-07. It decreased the lowest level at ₹686 Crore in 2007-08. It slightly increased to ₹932 Crore in 2008-09. And finally it achieved the Highest level at ₹3181 Crore in 2009-10.

As per as shareholder point of view amount of dividend fluctuating during the study more fund and profit are available to the shareholder.
The percentage of Retained In Business to Net Value Added fluctuating trend during the period of study. It was **42.61** percent in the year 2005-06. It increased to **45.00** percent in 2006-07. It was the highest level at **45.23** percent in 2007-08. It decreased to **43.53** percent in 2008-09. It reached the lowest level at **38.28** percent in 2009-10. The absolute figures of Retained In Business first three year increasing trend during the year 2005-06 to 2007-08 and after it decreased last two year 2008-09 and 2009-10 respectively. It was ₹**22555** Crore in 2005-06, It increased to ₹**30931** Crore in 2006-07. It further increased the highest level at ₹**32232** Crore in 2007-08. It decreased to ₹**30515** Crore in 2008-09. It reached to ₹**26006** Crore in 2009-10.

It may be concluded the overall performance of the company was satisfactory during the later period of study and management should try to keep it up and to improve the condition of the company.
4.22 TESTING OF HYPOTHESIS OF THE STUDY INDIAN OIL CORP. LTD.

The following hypotheses are framed for this Research study:

**Null Hypothesis (H\(_0\))**

1. There is no significant relation between Sales and Gross Value Added of India Oil Corporation Ltd.
2. There is no significant relation between Sales and Net Value Added of India Oil Corporation Ltd.

**Alternative Hypothesis (H\(_1\))**

1. There is significant relation between Sales and Gross Value Added of India Oil Corporation Ltd.
2. There is significant relation between Sales and Net Value Added of India Oil Corporation Ltd.

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added (Y) it is that shows higher degree and Net value added (Z)

- Testing hypothesis 1

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added (Y) it is \( r_1(x, y) = 0.80 \) that shows higher degree correlation between sales and Gross Value Added. Significance of correlation will also be tested through Student T-test as:

\[ T(\text{cal}) = 6.67 \]

\[ T(\text{tab}) = 2.31 \text{ at 5\% level of significance.} \]

Calculated value of \( T_c = 6.67 \) which is more as compared to critical value of \( T_t = 2.31 \) at 5\% level of significance. Hence, null hypothesis rejected that means there is significant correlation between Sales and Gross Value Added.

- Testing of hypothesis 2

A coefficient of correlation is calculated between two variables Sales (X) and Net value added (Z) it is \( r_2(x,z) = 0.79 \) that shows higher degree correlation between sales and Net value added. Significance of correlation will also be tested through Student T-test as:
T (cal) = 2.23
T(tab) = 2.31 at 5% level of significance.

Calculated value of Tc = 2.23 which is less as compared to critical value of Tt = 2.31 at 5% level of significance. Hence, null hypothesis accepted that means there is no significant correlation between sales and Net Value Added.\(^{15}\)

One of our hypothesis that Value Added generation and application are ever during the study will be proved, because as per during the study period generation of Value Added marked that Net Value Added 134.64% in the year of 2007-08, due to charges in the various segment of revenue and is not control on cost of bought in materials. It may be concluded that the Highest growth in Net Value Added. Then later year of study is attributable to the optimum utilization of capacities, improvement in operating efficiencies now demand of Petrol Chemicals Product days increasing that why growth Rate of Net Value Added increased.
4.24 ANALYSIS OF VALUE ADDED STATEMENT OF INFOSYS LTD.

The value added statement of Infosys Ltd. Has been analysed in two parts viz. Generation of Value Added and application of Value Added.

**THE GENERATION OF VALUE ADDED:**

The Generation of Value Added reveals that Table – 4. The percentage of Sales product of Software towards Total Revenue marked fluctuating trend throughout the period of study from 2005-06 to 2009-10. It was the highest level at 98.57 percent in 2005-06, it decreased to 97.36 percent in 2006-07, 95.95 percent in 2007-08, It increased to 97.67 percent in 2008-09. And finally it reached the lowest level at 95.82 percent in 2009-10. The absolute figure of consultancy service & sales product of software marked a continuously increased throughout the period of study from 2005-06 to 2009-10. It was the lowest figure at ₹9521 Crore in 2005-06, it increased to ₹13893 Crore in 2006-07, ₹16692 Crore in 2007-08, it further increased to ₹21693 Crore in 2008-09 and finally it reached the highest level at ₹22742 crore in 2009-10.

The proportion of other Income towards Total Revenue shows that it marked fluctuating trend during the study period. It ranged between 1.43 percent in the year 2005-06 to 4.18 percent in the year 2009-10. It was 2.64 percent in 2006-07. It increased to 4.05 percent in 2007-08. It decreased to 2.13 percent in 2008-09. In case of the absolute amount at other Income Continuously increased trend during the study period year 2008-09 except the year 2008-09. It was ₹138 Crore in 2005-06. (lowest) It increased upto ₹376 Crore in 2006-07. ₹704 Crore in the year 2007-08. Further decreased to ₹479 Crore in 2008-09. It was the highest level at ₹991 Crore in 2009-10.

The proportion of cost of Bought-In-Material & Service to Total Revenue in the year 2005-06 to 2009-10 continuously decreasing trend during the period of study. It ranged between 16.84 percent in the year 2005-06 to 12.51 percent in the year 2009-10. It was slightly decreased to 16.73 percent in 2006-07, 14.89 percent in the year 2007-08. It further decreased to 13.91 percent in 2008-09.

Analysing the cost of Bought-In-Material and service separately the cost of material ranged between 0.10 percent in the year 2008-09 to 0.17 percent in the year 2005-06 and 2006-07 same as. It was 0.12 percent in 2007-08, And finally it was 0.11
percent in 2009-10. While the cost of service registered decreasing trend during the period of study. It ranged between the highest level at 16.84 percent in 2005-06 to 12.40 percent in 2009-10 (Lowest). The absolute amount of service showed first four years increasing trend after ultimately come down in the year 2009-10. It was the lowest level at ₹1611 Crore in the year 2005-06, It was ₹2363 Crore in 2006-07, It increased to ₹2550 Crore in 2007-08, It further Increased to ₹3062 Crore in 2008-09, it’s the highest level achieved and finally it slightly decreased to ₹2943 Crore in 2009-10. However the absolute amount of material showed a continuously increasing trend during the period of study except in the year 2007-08. It was ₹16 Crore in 2005-06 (lowest). It increased to ₹24 Crore in 2009-07. Ultimately It decreased to ₹21 Crore in 2007-08. ₹22 Crore in 2008-09 and finally it achieved the highest level at ₹25 Crore in 2009-10. It may be concluded that company try to control the expenditure on Bought in Material and services.

The Gross value Added showed an increasing trend during the period of study 2005-06 to 2009-10. The Ratio of Gross Value Added to Income from consultancy service, software product and other income ranged between 83.16 percent in 2005-06 to 87.49 percent in 2009-10 (highest). It was 83.27 percent in 2006-07, 85.22 percent in 2007-08 and it increased to 86.09 percent in 2008-09. The absolute amount of Gross Value Added also marked on continuously increasing trend during study period. It was the lowest level at ₹.8032 Crore in 2005-06. ₹.11882 Crore in 2006-07. It increased upto ₹.14825 Crore in 2007-08. It further increased to ₹.19082 Crore in 2008-09. And finally it reached the highest level at ₹.20765 crore in 2009-10. Above analysis reveals that a higher proportion of Gross Value Added in Total Revenue will be consider good and will show better social performance.
The index number of Net Value Added was 100.00 in 2005-06 being the base year, which was increased to 149.68 in 2006-07. Followed by 187.32 in 2007-08, it was increased to 241.22 in 2008-09. And finally it reached the highest level at 261.49 in 2009-10. Higher Growth Rate during remaining years.

The absolute figure of Net Value Added shows increasing trend throughout the study period, i.e. from 2005-06 to 2009-10. The lowest figure of Net Value Added was ₹7595 Crore in 2005-06 which increased to ₹11368 Crore in 2006-07 and ₹14227 Crore in 2007-08 which was increased to ₹18321 Crore in 2008-09 and ₹19860 Crore in the year 2009-10 which was the highest figure of Net Value Added for the study period.

Higher growth in Net Value Added during the year of study is attributed to optimum utilization of companies, improvement in operation, officiates and successful marketing of products.

The proportion of Depreciation should have a decreasing trend during year 2005-06 to 2008-09. Later on it increased in 2009-10. It ranged between 3.43 percent in 2008-09 to 4.52 percent in 2005-06. It decreased to 3.60 percent in 2006-07. It further decreased to 3.44 percent in 2007-08 and finally it reached at 3.81 percent in 2009-10. However, the absolute amount of Depreciation registered an increasing trend during the period of
study. It was ₹.437 Crore in 2005-06. It increased to ₹.514 Crore in 2006-07. ₹.598 Crore in 2007-08, it further increased to ₹.761 Crore in 2008-09 and finally it reached the highest level at ₹.905 Crore in 2009-10. Above analysis shows that it’s positive for liquidity point of view. Especially amount of Depreciation will increased significantly due to expansion and development activities it shows significant contribution by the company towards society.

**APPLICATION OF VALUE ADDED**:

It is evident from **Table 4.16** Shows that application at Value Added.

The analysis of application of value Added reveals that the more significant part of value added was applied for payment of Employees.

**Chart-4.43**

As the percentage of the payment to Employee towards Net Value Added was decreasing trend during the period of study. It ranged between 63.23 percent in 2005-06 to 60.88 percent in the year 2009-10. It was 62.58 percent in 2006-07, it decreased to 62.43 percent in 2007-08 and It further decreased to 62.28 percent in 2008-09. The absolute figure of payment Employee was ₹4802 Crore in 2005-06 (lowest Figure). It increased to ₹7114 Crore in 2006-07. ₹8882 Crore in 2007-08. It further increased to ₹11411 Crore in 2008-09 and finally it reached the highest level at ₹12031 Crore in 2009-
10. Above analysis shows that highest Benefit, welfare, and Arranged training Programme to Employee, its got maximum fund utilization to Employee.

**Chart 4.44**

The Second portion of Net Value Added in InfosysTech. Ltd. was utilized for contribution to Government towards Net Value Added was **5.46** percent in 2005-06. It decreased to **4.93** percent in 2006-07. It increased to **7.09** percent in 2007-08. It decreased to **6.26** percent in 2008-09. Finally it achieved the Highest level at **9.67** percent in 2009-10. The absolute figure of contribution to Government continuously increasing trend during the period of study. It was **₹415** Crore in the year 2005-06 (lowest), It increased to **₹560** Crore in 2006-07. It further increased to **₹1008** Crore in 2007-08. ₹ **1147** crore in the year 2008-09. And finally it reached the Highest level at **₹1921** Crore in 2009-10.

The next major portion was consumed for payment to Capital provider it has divided in two parts. Firstly, payment to Landor in form of Interest and secondly payment to shareholder in form of dividend.
Payment to interest to Lenders marked Fluctuating trend during the period of study. It was 0.16 percent in 2005-06, 0.19 percent and 0.02 percent in the year 2006-07 and 2008-09 respectively. Finally, it was 0.01 percent in 2009-10. The absolute amount of the payment of Interest to Lenders. It ranged between ₹1 Crore in 2007-08 to ₹22 Crore in the year 2006-07. It was ₹12 Crore in 2005-06, It decreased to ₹3 Crore in 2008-09, and Finally it reduced to ₹2 Crore in 2009-10. Above analysis shows that the company should try to reduce burden of borrowed funds, maximum utilisation of owned funds.
Payment to shareholder towards Net Value Added Fluctuating trend during the year 2005-06 to 2009-10. It was the highest level at 16.30 percent in 2005-06. It was the lowest level at 5.71 percent in 2006-07. It was 13.37 percent in 2007-08. It decreased to 7.34 percent in 2008-09 And finally it reached to 7.22 percent in 2009-10. The absolute figure of payment to shareholder in form of dividend was the lowest level at ₹649 Crore in 2006-07 and after it was the highest level at ₹1902 Crore in 2007-08. It was ₹1238 Crore in 2005-06. It decreased to ₹1345 Crore in 2008-09. And at last it slightly increased to ₹1434 Crore in 2009-10.

Above analysis may be concluded that company reduced interest liabilities and divedand increased more funds and profit are available to the shareholder.

**Chart-4.47**

The percentage of Ratained In Business to Net Value Added First Three year increasing trend after ultimately come down in the year 2008-09 and 2009-10. It was 14.85 percent in 2005-06. It increased to 26.59 percent in 2006-07. It further increased to 31.17 percent (Highest Level) in 2007-08. It decreased to 24.1 percent in 2008-09 and, It
further decreased to 22.22 percent in 2009-10. The absolute figure of Retained In Business increasing trend during year 2005-06 to 2008-09 In the year 2009-10 slightly decreased It ranged between ₹1128 Crore in 2005-06 to ₹4434 Crore in 2007-08. It was ₹3023 percent in 2006-07 It was ₹4415 Crore in 2008-09 and it slightly decreased to ₹4412 Crore in 2009-10.

As far as the above analysis is concerned, it may be conclude that the highest percentage of Net Value Added gone to Retained In Business (31.17% in the year 2007-08) every year during study period. It reveals from this analysis that company transfer more fund to reserve and surplus.

4.25 TESTING OF HYPOTHESIS OF THE STUDY INFOSYS LTD.

The following hypotheses are framed for this Research study:

Null Hypothesis (H₀)
1. There is no significant relation between Sales and Gross Value Added of Infosys Ltd.
2. There is no significant relation between Sales and Net Value Added of Infosys Ltd.

Alternative Hypothesis (H₁)
1. There is significant relation between Sales and Gross Value Added of Infosys Ltd.
2. There is significant relation between Sales and Net Value Added of Infosys Ltd.

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added(Y) it is that shows higher degree and Net value added (Z)

Testing hypothesis 1

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added(Y) it is \( r(x, y) = 0.99 \) that shows higher degree correlation between sales and Gross Value Added. Significance of correlation will also be tested through Student T- test as:-

\[ T (cal) = 12.12 \]

\[ T(tab) = 2.31 \text{ at 5\% level of significance.} \]
Calculated value of $T_c = 12.12$ which is more as compared to critical value of $T_t = 2.31$ at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between Sales and Gross Value Added.\(^\text{16}\)

- **Testing of hypothesis 2**

A coefficient of correlation is calculated between two variables Sales (X) and Net value added (Z) it is $r_{x,z}= 0.99$ that shows higher degree correlation between sales and Net value added. Significance of correlation will also be tested through Student T- test as:--

$T \text{ (cal)} = 12.16$

$T \text{(tab)} = 2.31$ at 5% level of significance.

Calculated value of $T_c = 12.16$ which is more as compared to critical value of $T_t = 2.31$ at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between sales and Net Value Added.\(^\text{17}\)

One of our hypothesis that Value Added generation and application are ever during the study will be proved, because as per during the study period generation of Value Added marked that Net Value Added 261.49% in the year of 2007-08, due to charges in the various segment of revenue and control on cost of bought in materials. The main reason is behind on it company increase their production and launch new product. Especially amount of Depreciation will increased significantly due to expansion and development activities it shows significant contribution by the company towards society
4.27 Analysis Of Value Added Statement Of Steel Authority of India Ltd.

The value added statement of Steel Authority of India Ltd. has been analysed in two parts viz. Generation of Value Added and application of Value Added.

- **The Generation of Value Added:**

  Table 4.17 shows that the Generation of value Added reveals the indicates of Sales turnover marked a continuosly increases throughout the period of study from 2005-06 to 2008-09 except in year 2009-10. It was the lowest at ₹37410 Crore in 2005-06. ₹36199 Crore in 2006-07, ₹52518 Crore in 2007-08, It further increased ₹55066 Crore in 2008-09 and finally it slightly decreased to ₹47830 Crore in 2009-10. The percentage of Sales Turnover towards Total Revenue showed it ranged between 95.29 percent 2009-10 to 99.56 percent 2005-06. It was Fluctuating during the period of study.

  The above analysis shows that company increases their production capacity and lunch a new product in market. The percentage of other Income towards Total Revenue showed that it fluctuating trend the period of study. It was 0.44 percent in 2005-06. It increased to 3.71 in 2006-07. It was 3.20 percent in 2007-08, 3.51 percent in 2008-09 and finally it reached the highest level at 4.71 percent in 2009-10. The absolute figure of other income that it ranged between ₹167 Crore in 2005-06 to ₹2364 Crore in 2009-10. It was ₹1395 Crore in 2006-07. It increased to ₹1735 Crore in 2007-08. It further increased to ₹2003 Crore in 2008-09.

  The cost of Bought-In-Material and service from outsiders to Total Earning fluctuating trend during the period of the study. It was 50.57 percent in 2005-06. It increased to 52.29 percent in 2006-07. It was 38.18 percent in 2007-08, 49.63 percent and 48.73 percent in year 2008-09 and 2009-10 respectively.

  Analyzing the cost of Bought In Material and service separately, the cost material ranged between 40.26 percent in 2005-06. It increased to 43.48 percent in 2006-07. It slightly decreased to 31.98 percent in 2007-08, It further increased to 42.13 percent in 2008-09. And finally it reached at 36.08 percent in 2009-10. The absolute amount of material should continuously increasing trend in remaining years. It was ₹15130 Crore in 2005-06, It was ₹16344 Crore in 2006-07. It increased to ₹17352 Crore in 2007-08. It further increased to ₹24046 Crore in 2008-09 and finally it reached the highest level at ₹
18109 Crore in 2009-10. However the absolute amount of service should continuously increasing trend during the remaining year. It was ₹3873 Crore in 2005-06. It decreased to ₹3350 Crore in 2006-07. It increased up to ₹3660 Crore in 2007-08. It further increased up to ₹4164 in 2008-09 and finally reached the highest level at ₹6251 Crore in 2009-10. Above discussion shows that the company should try to reduced proportion of Raw-Material and services bought from outsider’s compares to total Earning but overall Amount of Material and service growth continuously increased year by year. Its shows that company are development high during period of the study.

Chart-4.48

The Gross value Added showed fluctuating trend during the study period. The ratio of Gross value Added of Total Earning included sales Turnover and other incomes ranged between 49.43 percent in 2005-06 to 61.82 percent in 2007-08. It was 47.61 percent in 2008-09 It increased to 50.57 percent in 2008-09 and finally it achieved at 51.27 percent in 2009-10. The absolute fluctuating trend during the period of study. It was ₹18574 Crore in 2005-06. It also decreased to ₹17900 Crore in 2006-07. It increased to ₹33541 Crore in 2007-08. It further decreased to ₹28859 Crore in 2008-09 and finally it reached to ₹25134 Crore in 2009-10.
The Value Added Statement of Steel Authority of India Ltd. has been analyzed its two parts. Viz Generation of Value Added and Application of Net Value Added Marked a Continuous increased throughout marked a continuous increased throughout the period of study from 2005-06 to 2009-10. The index number of value added was 100.00 in 2005-06, being the base year, which decreased to 96.08 in 2006-07. Followed by 186.28 in 2007-08, 158.96 in 2008-09 and it reached at 140.35 in 2009-10. The absolute figure of Net Value Added shown sharply continuously increasing trend during the study period, from i.e. from 2005-06 to 2009-10. The lowest figure of Net value Added was ₹16638 Crore in 2009-07. It was ₹17317 Crore in 2005-06, The highest level at ₹32257 Crore in 2007-08. ₹27527 Crore in 2008-09 and finally it reached at ₹24304 Crore in 2009-10.

The proportion of Depreciation should continuously increasing trend during the study period up to 2005-06 to 2009-10. The absolute amount of Depreciation was the lowest level at ₹1257 Crore in 2005-06. It was ₹1262 Crore in 2006-07. It increased upto ₹1284 Crore in 2007-08. It further increased to ₹1392 Crore in 2008-09. And finally it reached the highest level at ₹1430 Crore in 2009-10. The percentage of Depreciation towards total Earning include sales Turnover and other income. It ranged between 2.33 percent in 2008-09 to 2.36 percent in 2006-07.

Above discussion clearly show that the proportion is part of retained earning it remains in year that why it better for company.

- **Application of Value Added**

According Table-4.18 shows that application of Value Added.

The analysis of application of value Added reveals that more significant part of value Added was applied for payment to Employees.

As the percentage of Net Value Added the payment to Employee was 24.28 percent in 2005-06. It increased the highest level to 30.92 percent in during study period. It was 24.48 crore in 2007-08. It was 30.89 percent in 2008-09. The lowest level 22.74 percent in 2009-10.
The absolute figure of the payment to Employee continuously increasing trend during the period of study. It ranged between ₹4204 Crore in 2005-06 to ₹8502 Crore in 2008-09. In between it was ₹5145 Crore in 2006-07, It increased to ₹8014 Crore in 2007-08 and finally it reached at ₹5527 Crore in 2009-10.
As the percentage of Net Value Added to the contribution to Government. Fluctuating trend during the period of study. It ranged between the lowest level at 29.28 percent in 2009-10 to the highest level of 51.40 percent in 2005-06. It was 37.93 percent in 2006-07. It increased to 32.57 percent in 2007-08 and it was 33.19 percent in 2008-09. The absolute amount of contribution to Government fluctuating trend during the period of study. It was ₹8901 Crore in 2005-06, It was the lowest value at ₹6311 Crore in 2006-07 and it was the highest value at ₹10506 Crore in 2007-08. It decreased to ₹9136 Crore in 2008-09 and It further decreased to ₹7263 Crore in 2009-10.

Chart-4.51

The next important use of value added was made, for payment to capital provider as shareholder. It was 3.90 percent (lowest) in 2008-09 and It was 7.69 percent in 2006-07 (Highest). The absolute amount of payment to shareholders increasing trend during the period of study except in 2008-09. It was ₹840 Crore in 2005-06 It increased to ₹1280 Crore in 2006-07. It further increased to ₹1528 Crore (highest) in 2007-08. It slightly decreased to ₹1074 (Lowest) in 2008-09. And finally it reached to ₹1363 Crore in 2009-10.
The payment to lender in form of Interest. First four year decreasing trend last year its increased. It was 2.79 percent in 2005-06 2.07 percent in 2006-07. It decreased to 0.81 percent in 2007-08. It further decreased to 0.94 percent in 2008-09. At Last it reached to 1.95 percent in 2009-10. The absolute Amount of the payment of Interest to Lender was ₹484 Crore in 2005-06 (Highest). It was ₹345 Crore in 2006-07. It decreased to ₹260 Crore in 2007-08. It further decreased to ₹258 Crore in 2008-09. And finally it reached to ₹474 Crore in 2009-10. Above analysis shows that company decreased the Burdon of debt maximum use of own capital use of maximum utilization Reserve fund.
The Percentage of Retained in Business to Net value Added Continuously increasing trend throughout period of study except in year 2008-09. It was 16.68 Percent in 2005-06 (lowest figure). It was 21.38 percent in 2006-07. It increased to 37.04 percent in 2007-08. It slightly decreased to 31.09 percent in 2008-09 and finally it reached the highest level at 40.22 percent in 2009-10. The absolute figure of retained in Business also continuously increasing trend, during the period of study. It was ₹2888 Crore in 2005-06 (lowest). It increased to ₹3557 Crore in 2006-07. It further increased to ₹11949 Crore in 2007-08. It increased to ₹18557 Crore in 2008-09. And finally it reached the Highest level at ₹19776 Crore in 2009-10.

It may be concluded that the overall performance of the company was satisfactory the later period of study and management should try to keep it up and to improve the condition of the company.
4.28 TESTING OF HYPOTHESIS OF THE STUDY STEEL AUTHORITY OF INDIA LTD.

The following hypotheses are framed for this Research study:

**Null Hypothesis (H₀)**

1. There is no significant relation between Sales and Gross Value Added of Steel Authority of India Ltd.
2. There is no significant relation between Sales and Net Value Added of Steel Authority of India Ltd.

**Alternative Hypothesis (H₁)**

1. There is significant relation between Sales and Gross Value Added of Steel Authority of India Ltd.
2. There is significant relation between Sales and Net Value Added of Steel Authority of India Ltd.

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added (Y) it is that shows higher degree and Net value added (Z)

**Testing hypothesis 1**

A coefficient of correlation is calculated between two variables Sales (X) and Gross value added (Y) it is \( r_1(x, y) = 0.9997 \) that shows higher degree correlation between sales and Gross Value Added. Significance of correlation will also be tested through Student T-test as:

\[ T(\text{cal}) = 12.12 \]

\[ T(\text{tab}) = 2.31 \text{ at } 5\% \text{ level of significance.} \]

Calculated value of \( T_c = 12.12 \) which is more as compared to critical value of \( T_t = 2.31 \) at 5\% level of significance. Hence, null hypothesis rejected that means there is significant correlation between Sales and Gross Value Added.\(^{18}\)

**Testing of hypothesis 2**

A coefficient of correlation is calculated between two variables Sales (X) and Net value added (Z) it is \( r_2(x,z) = 0.9996 \) that shows higher degree correlation between sales and Net value added. Significance of correlation will also be tested through Student T-test as:

\[ T(\text{cal}) = 12.27 \]
$T(\text{tab}) = 2.31$ at 5% level of significance.

Calculated value of $T_c = 4.83$ which is more as compared to critical value of $T_t = 2.31$ at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between sales and Net Value Added.\(^{19}\)

One of our hypothesis that Value Added generation and application are ever during the study will be proved, because as per during the study period generation of Value Added marked that Net Value Added \textbf{186.27\% in the year of 2007-08,} due to charges in the various segment of revenue and control on cost of bought in materials. The main reason is behind on it company increase their production and launch new product.
4.30 ANALYSISI OF VALUE ADDED STATEMENT OF OIL & NATURAL GAS CORPORATION LTD.

The value added statement of ONGC has been analysed in two parts viz Generation of Value Added and Application of Value Added.

THE GENERATION OF VALUE ADDED:

Table-4.19 Shows that the Generation of Value Added reveals the indicates of Sales Turnover marked a continuous in increased the period of study from 2005-06 to 2008-09. Except in the year 2009-10. It was the lowest level at ₹78044 Crore in 2005-06. ₹90366 Crore in the 2006-07, ₹1,06,249 Crore in 2007-08. It was the highest level at ₹1,14,191 Crore in 2008-09. And finally it slightly come down at ₹1,11,052 Crore the year 2009-10.

The percentage of sales Turnover towards Total Revenue showed it ranged between 94.54 percent in 2006-07 to 96.85 percent in 2008-09. It showed fluctuating trend during the period of study. Higher growth in sale Turnover during the later years of Study is attributable to the optimum utilisation of capacities, improvement in operating efficiencies and successful marketing of products.

The percentage of other Income towards Total Revenue Should that it fluctuating trend during the period of study. It was 3.65 percent in 2005-06. It was the highest level at 5.46 percent in 2006-07. It decreased to 3.83 percent in 2007-08. It further decreased to 3.15 percent in 2008-09. And finally it slightly increased to 4.00 percent in 2009-10. The absolute figurs of other income that it ranged between ₹2959 Crore in 2005-06 to ₹5220 Crore in 2006-07. It was ₹4233 Crore in 2007-08. It decreased to ₹3709 Crore in 2008-09. It increased to ₹4635 Crore in 2009-10.

The absolute figure of cost of Bought-In-Material and service from outsider continously increased the period of study except in the year 2009-10. It’s proportion to Total Revenue also continously increased except in the year 2009-10. It was 47.20 percent in 2005-06. It decreased to 47.19 percent in 2006-07. It further indereseed to 49.97 percent in 2007-08. It was the highest level at 51.12 percent in 2008-09. Ultimately it come down at 48.73 percent in 2009-10. However the absolute figure of cost of bought in goods and service from outsider was the lowest level at ₹38213 Crore in 2005-06. It
was increased to ₹45104 in the year 2006-07. It was ₹54959 Crore in 2007-08. It reached the highest level at ₹60267 Crore in 2008-09 and it come down ₹56371 Crore in 2009-10.

In seperately the cost of Bought-In-Material & Cost of Service. The percentage of cost of bought in Material ranged between 20.13 percent in 2006-07 to 24.28 percent in 2008-09. The absolute figure of cost of Bought in Material was ₹16975 Crore in 2005-06 (lowest). It was the highest level at ₹28630Crore in 2008-09. After it come down at ₹25912 Crore in 2009-10. The percentage of Cost of Service ranged between 26.22 percent in 2005-06 to 27.05 percent in 2006-07. The absolute figure of cost of service marked continuously increasing trend during the year 2005-06 to 2008-09 after it came down in the year 2009-10. It ranged between ₹21238 Crore in 2005-06 to ₹31637 Crore in 2008-09 after in came down at ₹30659 Crore in 2009-10.

The portion of Gross Value Added to Total Revenue Fluctuating trend throughout the period of Study for the year 2005-06 to 2009-10. It ranged between 48.88 percent in 2008-09 to 52.83 percent in 2005-06. It was 52.81 percent in 2006-07. It slightly
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decreased to 50.26 percent in 2007-08 and It reached to 51.27 percent in 2009-10. The absolute figure of Gross value Added Continuously increasing trend in the year 2005-06 to 2009-10. It was ₹42790 Crore in 2005-06. ₹50482 Crore in 2006-07. It increased to ₹54959 Crore in 2007-08. It further increased to ₹57633 Crore in 2008-09. And finally it reached the highest level at ₹59316 Crore in 2009-10.

The index number of Net Value Added was 100.00 in 2005-06, being the base year, which was increased to 116.89 which was increased to 126.15 in 2007-08, followed by 127.87 crore in 2008-09. Ultimately it reached at ₹123.00 Crore in 2009-10. The absolute figure at Net Value Added Shows increasing trend throughout during year 2005-06 to 2008-09. It come down in 2009-10. The lowest figure of Net Value Added was ₹33005 Crore in 2005-06, which was increased to ₹38514 Crore in 2006-07. ₹41635 Crore in 2007-08. It was the highest figure of Net Value Added at ₹42203 Crore in 2008-09. After than it came down to ₹40597 Crore in 2009-10. Higher growth in NVA during the later years of study is improvement in operating officences and successful marketing of products.

The portion of Depreciation to Total Revenue Continuously increasing trend during the year 2005-06 to 2009-10. It ranged between 12.08 percent in 2005-06 to 16.18 percent in 2009-10 (Highest) in the year 2009-10. In between it was 12.52 percent in 2006-07. It increased to 12.57 percent in 2007-08. It further increased to 13.09 percent in 2008-09. The absolute amount of Depriciation continuously increasing trend during whole period of study. It was the lowest level at ₹9785 Crore in 2005-06. It increased to ₹11968 Crore in 2006-07. It further increased to ₹13888 Crore in 2007-08. ₹15430 Crore in 2008-09. And Finally it reached the highest level at ₹18719 Crore in 2009-10. As amount of depriciation increases its positive for liquidity point of view.

 APPLICATION OF VALUE ADDED :

Above Table-4.20 reveals that application of value Added.

The analysis of application of Net value Added shows that the more significant part of value added was applied for contribution to Government.

As the percentage of the contribution to Government towards Net Value Added was 38.93 percent in 2005-06. It slightly decreased to 38.91 percent in 2006-07. It
increased to the highest level at 41.35 percent in 2007-08. It decreased to 41.31 percent in 2008-09 and finally it was slightly decreased to 40.26 percent in 2009-10.

**Chart-4.55**

Which shows fluctuating trend from year to year. The absolute figure of contribution of Government continuously increasing trend from year 2005-06 to 2008-09 after it come dffown in the year 2009-10. It was ₹12848 Crore in 2005-06, ₹14986 Crore in 2006-07. It increased to ₹17215 Crore in 2007-08. It further increased the highest level at ₹17436 Crore in 2008-09. After it came down at ₹16344 Crore in 2009-10.
Secondly, the significant part of Net Value Added was applied for payment to Employees. The percentage of payment to Employees towards Net Value Added was Fluctuating Trend during the period of study. It ranged between 2.75 percent in 2008-09 to 6.18 percent in 2006-07. 4.14 percent and 3.19 percent in the year 2005-06 and 2007-08 respectively. It was 3.77 percent in the year 2009-10. The absolute figures of payment to Employee’s also fluctuating trend during the period of study. It ranged between ₹1162 Crore in 2008-09 to ₹2380 Crore in the year 2006-07 (Highest Figure). It was ₹1367 Crore in 2005-06. It decreased to ₹1328 Crore in 2007-08. And finally it reached at ₹1407 crore in 2009-10.
The next major portion was. Consumed payment to capital providers. It has divided two parts firstly, payment to shareholders in form of dividend, secondly payment to Lender in form of Interest.

The portion of payment to Shareholders to Net Value Added continously fluctuating trend during the period of Study. It was the highest level at 19.44 percent in 2005-06. It decreased to 17.22 percent in 2006-07. It further decreased to 16.44 percent in 2007-08. It slightly decreased to 16.22 percent in 2008-09 And finally it was 17.39 percent in 2009-10. The absolute amount of payment to shareholders increasing trend during period of study. It was ₹6417 crore in 2005-06. It increased to ₹6631 percent in 2006-07. It was ₹6844 crore as same amount in the year 2007-08 and 2008-09. And finally it reached the highest level at ₹7058 crore in 2009-10.
Payment to Interest of Lenders marked first three years decreasing trend during the year 2005-06 to 2007-08. After two year increased and reached the highest level. It was 0.49 percent in 2005-06. It decreased to 0.42 percent in 2006-07. It further decreased to 0.32 (lowest) in 2007-08 after it increased to 0.56 percent in 2008-09 and finally it achieved the highest level at 1.24 percent in 2009-10. The absolute amount of payment to Lender fluctuating trend during the period of study i.e. 2005-06 to 2009-10. It was ₹160 Crore in 2005-06. It increased to ₹161 Crore in 2006-07. It decreased upto ₹135 Crore in 2007-08 (lowest) after it increased to ₹239 Crore in 2008-09 and finally it reached the highest level at ₹502 Crore in 2009-10.

Above analysis shows that shareholder point of view amount of dividend in term of amount and percentage in both the respectively increases gradually year by year simple reason is interest liabilities are decreased with compare to dividend and more funds and profit are available to the shareholders.
The percentage of Retained In Business to Net Value Added continuously increasing trend during the period of study except in the year 2009-10. It was the lowest level at 37.00 percent in 2005-06. 37.27 percent and 38.70 percent in the year 2006-07 and 2007-08 respectively. It achieved the highest level at 39.15 percent in 2008-09 and after it slightly came down at 37.68 percent in 2009-10. The absolute figure of Retained In Business increasing trend during year 2005-06 to 2008-09. In 2009-10 it slightly decreased. It was ₹12213 Crore in 2005-06. ₹14356 Crore in 2006-07. It increased to ₹16113 Crore in 2007-08. It was the highest level at ₹16522 Crore in 2008-09. After it slightly decreased to ₹15286 Crore in 2009-10.

The above analysis may be concluded that highest percentage (39.15%) of Net Value Added gone to Retain in business every year during the period of study and company transfer more amount to Reserve and surplus Every year during period of study but in the year 2009-10 borrowed amount of Retain in business slightly decreased. Thus, overall condition of company is better.
4.31 TESTING OF HYPOTHESIS OF THE STUDY ONGC

The following hypotheses are framed for this Research study:

- **Null Hypothesis** ($H_0$)
  1. There is no significant relation between Sales and Gross Value Added of ONGC
  2. There is no significant relation between Sales and Net Value Added of ONGC

- **Alternative Hypothesis** ($H_1$)
  1. There is significant relation between Sales and Gross Value Added of ONGC
  2. There is significant relation between Sales and Net Value Added of ONGC

A coefficient of correlation is calculated between two variables Sales ($X$) and Gross value added ($Y$) it is $r_1(x, y) = 0.98$ that shows higher degree correlation between sales and Gross Value Added. Significance of correlation will also be tested through Student $T$-test as:

$$T_{(cal)} = 8.53$$
$$T_{(tab)} = 2.31$$ at 5% level of significance.

Calculated value of $T_{c} = 8.53$ which is more as compared to critical value of $T_{t} = 2.31$ at 5% level of significance. Hence, null hypothesis rejected that means there is significant correlation between Sales and Gross Value Added.

Testing of hypothesis 2

A coefficient of correlation is calculated between two variables Sales ($X$) and Net value added ($Z$) it is $r_2(x, z) = 0.94$ that shows higher degree correlation between sales and Net value added. Significance of correlation will also be tested through Student $T$- test as:

$$T_{(cal)} = 4.77$$
\[ T(\text{tab}) = 2.31 \text{ at 5\% level of significance.} \]

Calculated value of \( T_c = 4.77 \) which is more as compared to critical value of \( T_t = 2.31 \) at 5\% level of significance. Hence, null hypothesis rejected that means there is significant correlation between sales and Net Value Added.  

One of our hypothesis that Value Added generation and application are ever during the study will be proved, because as per during the study period generation of Value Added marked that Net Value Added 127.87\% in the year of 2008-09, due to charges in the various segment of revenue and control on cost of bought in materials. The main reason is behind on it company increase their production and launch new product. Higher growth in NVA during the later years of study is improvement in operating efficiencies and successful marketing of products.
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