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# IMPACT OF CURRENCY FLUCTUATION -A COMPARATIVE ANALYSIS OF IT COMPANIES IN INDIA

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## ABSTRACT

*Every company has its prime aim to Growth. With the changing times increase in competition has become their core competencies and has a competitive edge over others. Business matrices like Net Revenues, Profits after tax, Total Income (Capitalization), Total Expenditures, Expenditure in Foreign Exchange and Foreign Exchange Gains/Losses are important indicators representing the stand of companies in the market. A comparative analysis of the major 5 IT Sector Companies like TCS, WIPRO, INFOSYS, HCL,ORACLE in India has been presented in this paper on the basis of secondary data which includes last 10 year Profit (%) after tax, Revenues, Expenditures, Expenditure in Foreign Exchange and Foreign Exchange Gains/Losses. An empirical study has been done and conclusions have been brought out on the basis of the data collected to achieve this objective. The collected data was analyzed with the help of prowess software. In this paper, it was concluded that TCS is the overall leader in all business matrices mentioned above.*

**KEYWORDS:** *Growth, Foreign Exchange, exchange rate, IT sector*

## INTRODUCTION

The gradual liberalization of Indian economy has resulted in substantial inflow of foreign capital into India. Simultaneously dismantling of trade barriers has also facilitated the integration of domestic economy with world economy. The Indian IT industry is hopeful of maintaining its growth momentum in 2012 despite global economic uncertainty and concerns over the fallout of the sovereign debt crisis in Europe. "The Indian IT sector, especially software services, will do well to sustain the growth momentum as demand for its offerings in export and domestic markets continue to be favorable despite uncertainty, arising mainly out of the Euro crisis," a top industry representative told IANS ahead of the third quarterly (Oct-Dec) earnings season. Asserting that the market conditions were not as bad as they were in 2008-10 when global financial meltdown reduced the industry's growth to single digit (6%) in fiscal 2009-10, National Association of Software and Services Companies (NASSCOM) president Som Mittal said software exports would be in line with the projected 15-17 percent to generate about $70 billion in 2011-12 as against $59 billion in 2010-11. "We are cautious about the outlook for the ensuing fiscal (2012-13) due to concerns over the Euro crisis. Though we don't know how it (crisis) would play out eventually, we are optimistic that our services will be in demand as clients will continue to engage us for their business operations, which are non-discretionary," Mittal said.

The exchange rate mechanism was suggested in 1930 by Bretton wood. He is the person who played a vital role in exchange rate mechanism. There was fixed parity exchange system which continued for many years, and then floating system emerged. It is based currencies or after that crawling peg system. Target zone arrangements emerged in 1999.The foreign exchange rate exposure of a firm shows the change in the value of assets and liabilities, expressed in terms of foreign currency, due to the change in foreign exchange rate. It measures the sensitivity of its cash flows to changes in exchange rates. However, since cash flows are difficult to measure. Most researchers have examined exposure by studying how the firm's market value, the present value of its expected cash flows, responds to changes in exchange rates. Exchange rate exposure certainly has the potential to be significant risk factors for firms. As pointed out by Jorion (1990), the volatility of exchange rates is substantially larger than that of interest rates or inflation. Hence, the present study is needed to know the impact of currency fluctuation on Indian IT sector.

## MEANING OF FOREIGN EXCHANGE EXPOSURE

IT companies engaged in international business experience foreign exchange exposure and risk. Foreign exchange exposure is the sensitivity of the value of assets, liabilities and cash flows of an IT company to changes in exchange rates of currencies. The variability in the values of assets, liabilities and cash flows induced by such exposure is referred to as foreign exchange risk[1].

In other words an exposure can be defined as a contracted, projected or contingent cash flow whose magnitude is not certain at the moment. The magnitude depends on the value of variables such as Foreign Exchange rates and Interest rates. Simply, Exposure refers to those parts of a Company's business that would be affected if exchange rate changes. Foreign exchange exposure arises from many different activities.

## CLASSIFICATION OF FOREIGN EXCHANGE EXPOSURE AND RISK

The literature on the subject divides foreign exchange exposure into two classes. One is known as translation or accounting exposure, while the other is known as economic exposure. The basic difference between the two is that the accounting exposure is derived from the consolidated financial statements of the parent company and it does not influence the cash flow. Economic exposure is the result of the altered cash flow of a company.

**3.1. Translation Exposure:** It is a mismatch between the translated value of assets and liabilities following exchange rate change[2]. This is a short term exposure, also known as Accounting exposure. It refers to gains or losses caused by the translation of foreign currency assets and liabilities into the currency of the parent company. It is the measurement of change in the assets & liabilities due to the change in exchange rate.[3]There is no involvement of cash flows here. It is more relevant in case of parent & subsidiary companies as the parent company has to prepare consolidated financial statements.

**3.2. Economic Exposure:** It is further divided into transaction exposure and real operating exposures. **Transaction Exposure** measures the effect of an exchange rate change on outstanding obligations that existed before exchange rates changed but were settled after the exchange rate changes. It deals with the changes in the present cash flows of a firm due to the exchange rate changes. The important points to be noted here are transaction exposures usually have short time horizons and operating cash flows are affected. **Real Operating Exposure** deals with the changes in inflation adjusted future cash flows of a firm due to change in exchange rate. This is classified as long-term exposure as the principal focus here is on items which will have impact on the cash flows of the firm in years to come and which may have a serious impact on the competitiveness posture of the firm forcing it to restructure its business and redefine its long-term strategy. Operating exposures capture the impact of unanticipated exchange rate changes on the firm's revenues, operating costs and operating net cash flows over a medium term horizon – say upto three years.

## REVIEW OF LITERATURE

Literature reviewed usually includes academic journals or peer reviewed journal, books, and authoritative databases Oberoi. (2012), in the article "Riding the INR Stocks How INR's volatility is affecting currency-sensitive shares". How INR's volatility is affecting currency-sensitive shares talks about how INR depreciation is most advantageous to export oriented companies. These include software services, pharmaceutical aquaculture, engineering, Jewelers. However, gains for engineering goods, gems & jewelers sectors limited, because to an extent, the gain is absorbed by the cost increase in import of raw materials. On the other side Information Technology (IT) and pharmaceutical companies are taking advantages being export-focused. Certain sectors earn more profit due to devaluation, including IT. The earnings of the IT sector are ~$60Billion /year, coming from exports of Services & Software. Pharmaceutical : The Indian Pharma Industry is worth $20B, (~INR 1,00,000 Cr.), accruing from exports of $9Billion, or INR 45,000 Cr. Aquaculture – Exports from India of 3,13,000 Tons of marine products upto INR 6,679 Cr., or $1.4Billion , in Apr-Sept 2011. In 2011-12, there was 0.12% volume increase, 19.91% in INR earnings & 23.01% in USD earnings. Implies that the weakened INR assisted exporters of the country's seafood. Other way, the capital goods sector was under much pressure in 2011. A cognizable slowdown in incoming order was seen. Also with the then trend of upward interest rates, projects had been delayed or suspended for the time.

Oil Marketing Companies: Prices of Scripts of oil marketing companies i.e. OMCs downed 45 to 50% in the period of Sept-2011 to Dec-2011. Margins were contracting due to higher input costs. The INR's trend in the last half year has significant impacts for India's economy & the various classes of assets thereof. Thus in conclusion sectors which depend on imported goods and technology due to increase in cost profit margin have declined and this in high cost of production has lead to inflationary pressure.

This article highlights some points from the interview of Mr.Sujit Sircar, iGATE Patni (The Hindu).In this he stresses that even though The INR could up itself to 50/- in the near-term, the IT-Industry will be looking forward to steadyness of Rupee. He also mentions that even as a revenue-increases with a fall in INR, expenses of country's IT companies too raises. So INR depreciating may be affecting positively to the IT industry but in medium range the expenditures like travel, electricity and other normal capital expenses rise. In the coming time, there will also be salary pressures for these organisations.

Edin et. al., (1993); has stated in his paper, " Devaluation Risk in Target Zones: Evidence from the Nordic Countries", Fall in currency is related to money stock ,Industrial production, foreign exchange reserves, and the existing mid parity are also important factors for stock market. This Pattern is Consistent with a simple model where the monetary authorities are assumed to respond to changes in a 'shadow exchange rate', and where the target exchange rate may be treated as a censored variable. The estimates of devaluation probabilities seem robust and reasonable. They also Track actual devaluations rather well. The estimates of the size of devaluations are much less robust but have a small impact on the product of the two estimates, i.e. on the unconditional expected rates of devaluation.

Agarwal. (2012), in article, "Effect of devaluation of Indian currency in Indian economy" say that devaluation happens as a method to rectify BOP imbalance. He mentions in his paper that that rather than devaluation depreciation of the currency is favorable which would enhance the export and in turn increase the economy by increase in employment helping the economy to grow.

Mark Frankena, Devaluation, Recession, and Nontraditional Manufactured Exports from India Author-Mark Frankena, University of Western- Ontario-This paper analyzes the role of industrial recession, changes in export subsidy schemes, and devaluation in explaining the rapid expansion of exports of iron and steel, engineering goods, and tires from India during the 1960s.From this study he was able to state that changes in trade policies and domestic demand let to an increase in the level of export of these commodities.

Bhawna Kalra(2012),Devaluation of INR vs USD : an historical perspective - Bhawna Kalra - 2012 -This paper talks about the reasons for devaluation pre & post liberalization. Author is trying to study the effect of the INR depreciation on the India s economy .He is also mentioning that in the continuing weaker INR is more of concern than being favorable. Author suggests that central govt active participation is required to keep stable currrency.

## OBJECTIVES OF THE STUDY

1. To ascertain the impact of exchange rate volatility on the revenues of the IT sector companies.
2. To ascertain the impact of exchange rate volatility on the profits of the IT sector companies.
3. To ascertain the impact of exchange rate volatility on the Expenses of the IT sector companies.

## Scope of the study

This study would reveal the variations in the foreign exchange volatility and its impacts on the earnings of selected Top 5 Indian IT companies namely TCS, Infosys, Wipro, Oracle and HCL.

### Need of the study

Uninterrupted fluctuations in exchange rate impose threats for international business. As a result of Change in exchange rate, Exporters as well as importers are affected due to continual volatility. However is favorable for the exporter as depreciation of currency increases exports. Many exporting companies are benefited because of volatility like textile, chemical, pharmaceutical, tourism, gems, jewellery, Information technology (IT). Large scale fluctuations can evenbring dramatic changes in the competitive structure of markets which may even cause some companies to be driven out of the market. This can affects investors investing in such companies. Such fluctuation is more to worry than to cheer for the IT companies. Is financial affecting because of dollar rate increasing? Are companies using strategies to reduce the risk of volatility? Are these strategies beneficial? Is this benefit of rupee depreciation long term or short term? It results in too many questions; whether or not companies in India, are seriously managing their foreign exchange exposure? If not, what is the reason? All of these questions are required to be answered which initiate this research work. This study would reveal the impact of rupee variations on the companies' financials. This also helps the investors to predict if it is beneficial

## RESEARCH METHODOLOGY

***Data source:***

The study concentrates on the major 5 IT sector companies only namely;

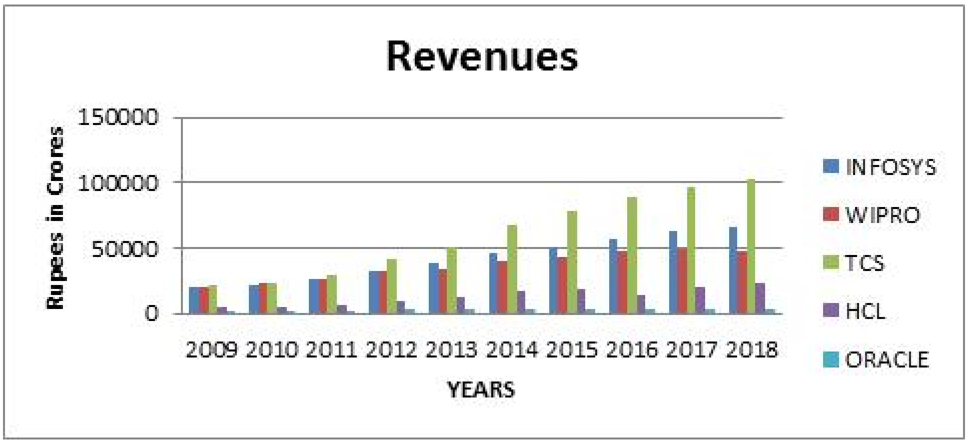
- Tata Consultancy Services Ltd
- Infosys Technologies Ltd
- Wipro Technologies Ltd
- HCL Technologies Ltd
- Oracle Ltd

The data for the study comprises of secondary data that is quarterly data of Revenues, Operating Profit EBIT and Expenses of the selected companies from their yearly report published on their website. It also includes average of daily data of foreign exchange rates of US USD taken from past 10 years i.e., 2009-2018. Other sources used include articles, journals and magazines, research bulletins, RBI sites and other accessible publications. The study is both qualitative and quantitative. The quantitative data will be used to support the qualitative facts obtained.

**Comparative analysis of Top 5 IT companies in India.**

**Revenue:**

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| INFOSYS | 20766 | 22107 | 26532 | 33083 | 38980 | 46917 | 50637 | 56989 | 62351 | 65960 |
| WIPRO | 21026 | 23788 | 26981 | 32910 | 34551 | 40368 | 43708 | 47391 | 48693 | 47189 |
| TCS | 21945 | 23226 | 29770 | 41543 | 50656 | 67787 | 78044 | 89621 | 97261 | 103159 |
| HCL | 4766 | 5193 | 6960 | 9208 | 12896 | 17156 | 18352 | 14403 | 20274 | 22775 |
| ORACLE | 2380 | 2175 | 2500 | 2980 | 3378 | 3780 | 3716 | 3741 | 3899 | 3950 |




From the above table it clears states that TCS Company stands first when compared to other companies. From 2009 to 2018 TCS plays a major role in performing with the revenues.

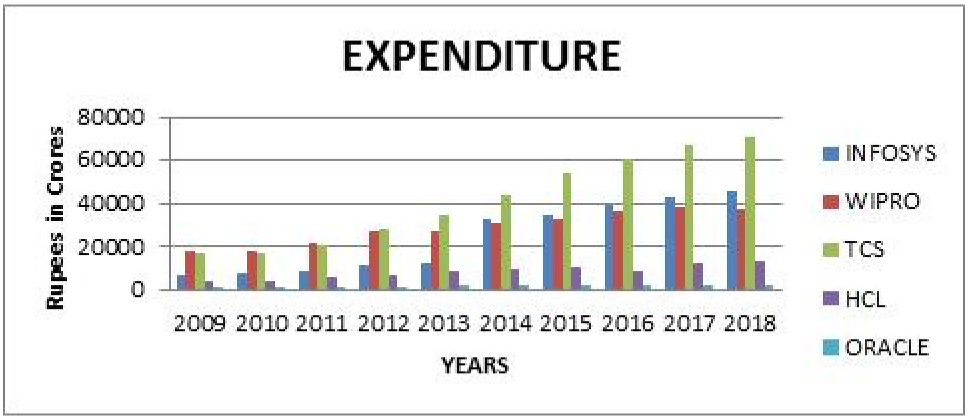
**PROFITS**

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| INFOSYS | 5818 | 5803 | 6443 | 8470 | 9116 | 10194 | 12164 | 12693 | 13818 | 16155 |
| WIPRO | 2973 | 4898 | 4843 | 4685 | 5650 | 7387 | 8193 | 8200 | 8161 | 7722 |
| TCS | 4696 | 5618 | 7569 | 10975 | 12786 | 18474 | 19256 | 23075 | 23653 | 25241 |
| HCL | 997 | 1056 | 1198 | 1950 | 3704 | 5984 | 6345 | 4719 | 6873 | 7362 |
| ORACLE | 695 | 660 | 967 | 1089 | 1029 | 1148 | 1058 | 897 | 1288 | 1005 |


From the above table it clears states that TCS Company stands first when compared to other companies. From 2009 to 2018 TCS plays a major role in performing with the profits.

**EXPENDITURE**

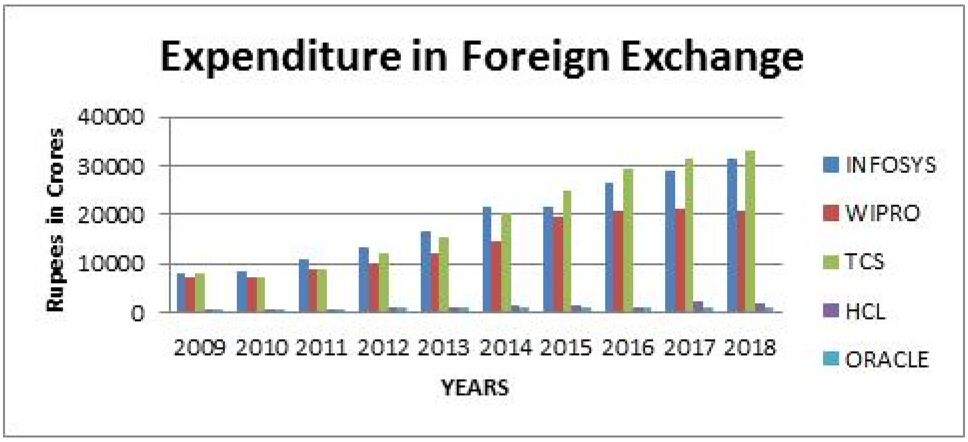
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| INFOSYS | 6714 | 7520 | 8821 | 11096 | 12274 | 32915 | 34251 | 39389 | 43413 | 46052 |
| WIPRO | 17479 | 18099 | 21275 | 26991 | 27346 | 30760 | 33151 | 36797 | 38006 | 37155 |
| TCS | 16805 | 16856 | 21069 | 28177 | 34953 | 44243 | 54023 | 60282 | 67195 | 71228 |
| HCL | 3572 | 4040 | 5670 | 6847 | 8445 | 9758 | 10654 | 8621 | 11998 | 13650 |
| ORACLE | 1601 | 1427 | 1454 | 1656 | 1873 | 2049 | 2103 | 2273 | 2433 | 2463 |




From the above table it clears states that TCS Company stands first when compared to other companies. From 2009 to 2018 TCS plays a major role in performing with the expenditure.

**EXPENDITURE IN FOREIGN EXCHANGE**

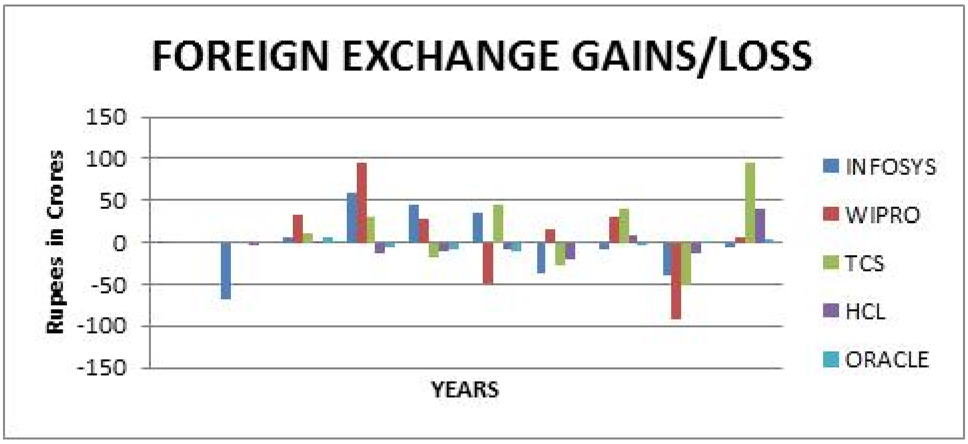
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| INFOSYS | 8043 | 8389 | 10765 | 13532 | 16834 | 21400 | 21627 | 26529 | 29088 | 31358 |
| WIPRO | 7034 | 7164 | 8854 | 9978 | 12068 | 14789 | 19430 | 20818 | 21291 | 20783 |
| TCS | 7876 | 7339 | 8890 | 12263 | 15602 | 20275 | 24745 | 29554 | 31553 | 33014 |
| HCL | 702 | 688 | 579 | 884 | 1131 | 1419 | 1535 | 1236 | 2164 | 2012 |
| ORACLE | 752 | 592 | 636 | 839 | 843 | 854 | 857 | 927 | 940 | 973 |




From the above table it clears states that TCS Company stands first when compared to other companies. From 2009 to 2018 TCS plays a major role in performing with the expenditure in foreign exchange.

**FOREIGN EXCHANGE GAIN/LOSS**

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|
| INFOSYS | 0.73 | -68 | 5 | 60 | 45 | 34 | -37 | -9 | -39 | -6 |
| WIPRO | 0 | 0 | 32.3 | 95.2 | 27.1 | -49.3 | 15.1 | 31.3 | -93.2 | 5.2 |
| TCS | 0 | 0 | 11.39 | 31.02 | -16.7 | 43.66 | -27.3 | 40 | -52 | 94 |
| HCL | 0 | -2.69 | 1.08 | -13.2 | -9.78 | -9.09 | -20.4 | 7.64 | -13 | 39 |
| ORACLE | 0 | 0 | 6.84 | -4.63 | -9.01 | -10.4 | 0.63 | -1.34 | 2.41 | 4.36 |




From the above table it clears states that TCS Company stands first when compared to other companies. From 2009 to 2018 TCS plays a major role in performing with the foreign exchange. From the last four years Infosys suffers losses.

## Conclusions, Limitations and Recommendations

After a detailed comparison of the IT companies in India, it was found out that TCS outdoes its rest of the competitors in the case of all the three business matrices used which are Revenue, Profits and Expenditure. Secondly, the scope of the research done in this paper is limited to the 5 IT companies. This scope could be widened to cover all the IT companies' whole of India to get a nationwide picture.

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