



## Financial Performance Analysis of FOREX Exposure of Indian IT Sector with Special Reference to Tata Consultancy Services Limited, Infosys Technologies Pvt. Ltd. and Wipro Limited

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### ABSTRACT

*This paper attempts to analyze the financial performance of three IT giants of India – Tata Consultancy Services limited (TCS), Wipro Limited and Infosys Technologies Pvt. Ltd and understanding their foreign market exposure risk. IT industry forms a major part of service sector industry of India. Service sector of India (especially IT sector) has shown a significant progress (compounded growth rate of 7.5%, National Statistical Commission, 2001, art 7.1.2) since Indian economy opened in 1992. The growth in the service sector in India has been led by the IT-ITES sector, contributing substantially to increase in GDP, employment, and exports. According to Gartner, the “Top Five Indian IT Services Providers” are Tata Consultancy Services, Infosys, Cognizant, Wipro and HCL Technologies. Thus understanding of performance analysis of major player of the sector- TCS, Wipro and Infosys (combined turnover for FY-2013 amounting 15.8 billion, The Indian Express 27th Aug '13) is crucial to understand the future of Indian IT sector and its exposure to foreign exchange market. With depreciation of Indian currency (depreciated to almost 60% since global economic crises 2008), understanding the exposure risk of Indian IT sector becomes all the more important. The study is based upon secondary data covering the period from 2003-2004 to 2012-2013. For analyzing the financial performance of all three companies growth analysis and ratio analysis are calculated. To understand the foreign market exposure risk Coefficient of Variation and Ratio analysis of turnover, gross profit and net profit for both companies for two different period, 2003-2008 and 2008-2013 are calculated and compared.*

**Keywords : IT industry, Foreign market exposure risk, Growth analysis, Ratio analysis, Coefficient of Variation**

### Introduction

#### Growth of IT industry in India

The statistic of India's IT industry substantiates the huge momentum acquired by the IT sector in the recent past. During the financial year 2011-12 the software industry in India accounted for \$100 billion. The growth of the service sector in India has been led by the IT-ITES sector, contributing substantially to increase in GDP, employment and exports. The sector has increased its contribution to India's GDP from 1.2% in 1998 to 7.5% in 2012. According to NASSCOM, the IT-BPO sector in India aggregated revenues of USD 100 billion in 2012, where export and domestic revenue stood at US\$ 69.1 billion and US\$ 30.9 billion respectively, growing by over 9% Hardware segment is estimated to grow by 17 percent to be Rs.541 billion, information technology services segment is estimated to grow by 20 percent to be Rs. 380 billion. Whereas software products and BPO segment is estimated to grow by 15 percent to be Rs. 103.3 billion.

Nearly 90% of this sector exports comes from Bangalore, Delhi, Mumbai, Chennai, Hyderabad, Pune, Kolkata and Coimbatore. Exports dominate the IT-ITES industry and constitute about 77% of the total industry revenue. According to Gartner, the “Top Five Indian IT Service Providers” are Tata Consultancy Services, Infosys, Cognizant, Wipro and HCL Technologies.

This sector has also led to massive employment generation. The industry continues to be a net employment generator- expected to add 230,000 jobs in the year 2013-14, thus providing direct employment to around 2.8 million and indirectly employing around 8.9 million people.

The growth in IT sector has brought about many other positive changes in Indian economy. The purchasing power of a large section of Indian population has increased drastically.

This has resulted in an increase in the average standard of living of the majority of population in the country. The increase in purchasing power of the common people has propelled the growth rate of the other sector of the economy as well. The information technology industry has emerged as one of the fastest growing industries in India. With its growing demand and dynamic nature, this sector holds lot of scope in the development of Indian export sector and curbing trade deficit.

#### Development of Infosys Technologies Pvt. Ltd

Infosys is a global leader in consulting, technology and outsourcing solutions. As a proven partner it focuses on building tomorrow's enterprise, and enables clients in more than 30 countries to outperform the competition and stay ahead of the innovation curve. With US\$7.4bn in annual revenues and 155,000+ employees, Infosys provides enterprises with strategic insights on what lies ahead. It helps enterprises transform and thrive in a changing world through strategic consulting, operational leadership and the co-creation of breakthrough solutions, including those in mobility, sustainability, big data and cloud computing.

#### Development of Wipro Limited

Wipro Limited (formerly Western India Products Limited) is an Indian multinational information technology (IT), consulting and outsourcing service company headquartered in Bangalore, Karnataka, India. As of September 2013, the company has 147,000 employees serving over 900 clients with a presence in 57 countries. Wipro is the third largest IT services company in India. On 31 March 2013, its market capitalization was 1.07 trillion (\$19.8 billion), making it India's 13th largest publicly traded company. Azim Premji is a major shareholder in Wipro with over 50% of shareholding

#### Development of Tata Consultancy Services Limited

Tata Consultancy Services (TCS) is a leader in the global

marketplace and among the top 10 technology firms in the world. Its continued rapid growth is a testament to the certainty its clients experience every day. Building on more than 40 years of experience, TCS add real value to global organizations through domain expertise plus solutions with proven success in the field and world-class service.

### Significance of the study

Income growth is essential for achieving economic social and even political development. IT that grows strongly and for a sustained period of time are able to reduce their poverty level significantly, strengthen their democratic and political stability, improve the quality of their natural environment, and even diminish the incidence of crime and violence. Economic growth is not a solution; but it greatly facilitates the implementation of public programs that complement its effects and correct its deficiencies, even if its direct beneficial impacts are modest. This study will be a significant endeavor for the enhancement of the strategies used by the TCS, Wipro & Infosys in order to position themselves both in the domestic and global market and develop strategies to hedge themselves with exchange rate exposure so as to become world leader in ICT industry and help in bridging trade deficit by developing export.

### Objective of Study

IT has tremendous potential of becoming an engine of accelerated economic growth, productivity, improvement for all sectors of the economy, developing India's position in export market, improving trade deficit and means of efficient governance. It enhances access to information, protects consumers, provides access to government services, makes skill formation and training more effective, improves delivery of health services, and promotes transparency. The financial performance is an integral part of overall management. There had been variation in the profits of TCS Ltd, Wipro Ltd & Infosys Pvt. Ltd. the top three giants from IT sector from period to period. The success or failure of the selected IT companies is determined by applying various tools such as growth analysis and ratio analysis etc. There has been variation in earnings of various IT firms of India on account of depreciation/appreciation of Indian Rupees in recent years which leaves a gap to understand and analyze the importance of currency exposure to Indian IT firms. Thus main objectives of this study are :

1. To compare and analyze the growth rate of TCS, Wipro and Infosys
2. To compare and analyze the financial performance of TCS, Wipro and Infosys
3. To analyze the exposure risk of TCS, Wipro and Infosys

### Data Collection

#### Financial Performance Analysis of TCS, Wipro and Infosys for the period 2007-08 to 2012-13

RATIO	2007-08			2008-09			2009-10		
	TCS	INFOSYS	WIPRO	TCS	INFOSYS	WIPRO	TCS	INFOSYS	WIPRO
ACID TEST / QUICK RATIO	0.61	0.77	0.67	0.63	0.96	0.62	0.48	1.03	0.84
CURRENT RATIO	2.04	3.28	2.13	1.87	4.72	1.77	1.88	4.46	2.35
FIXED ASSET TURNOVER RATIO	7.99	3.98	1.43	8.29	4.59	2.38	6.62	5.05	2.57
TOTAL ASSET TURNOVER RATIO	2.23	0.97	0.60	2.21	1.01	1.00	1.48	1.00	0.90
ROI	51.25%	36.79%	23.94%	52.76%	38.78%	24.61%	45.76%	33.40%	24.93%
GPM RATIO	0.24	0.43	0.31	0.20	0.45	0.17	0.30	0.61	0.25
NPM RATIO	0.22	0.29	0.27	0.19	0.29	0.15	0.23	0.27	0.21
OPM RATIO	0.25	0.32	0.32	0.26	0.34	0.18	0.29	0.35	0.25
EPS(after exceptional items)	25.68	78.24	22.62	26.81	101.65	26.81	35.67	100.37	20.16
P-E RATIO	18.4	na	23.39	18.4	13.02	15.29	18.4	26.20	21.03
DIVIDEND YIELD	na	na	1.34%	na	1.78%	1.15%	na	0.57%	1.64%

Source: Annual Reports

to foreign exchange market after financial crises 2008

### Review of Literature

Sebastian Edward (2001) analyzed the role of the internet, information technology and the "new" economy in Latin America. Thomas G. Calderon, Sooduk Seo, Il-Woon Kim(2001)- This study examines the relationship between the effectiveness of IT and financial growth of publicly traded financial companies in South Korea. Nirvikar Singh (2002) examines the possibilities for broad based IT-led economic growth in India, including value added, using better telecom links to capture more benefits. They also examine the government policy on removing labor market distortion and infrastructure constraints, rather than providing output or export subsidies to the software industry. Nigel Melville, Kenneth L. Kraemer and Vijay Gurbaxani(2004). They developed a model of it business value based in the resource based view of the firm that integrates the various strands of research into a single framework. Evangelia Vourvachaki(2006) investigated the impact of ICT on growth in an economy, consisting of three sectors, ICT-producing, ICT-using and non-ICT using. The benefits from ICT come from the falling prices of the ICT-using sector's goods, which is used for the production of intermediate goods. Namchul Shin(2006) conducted an empirical study of the impact of IT on the financial performance resulting from diversification by focusing on the strategic direction chosen by different firms. Meenakshi Rajeev and Vani, B.P. (2007) examines the direct and indirect benefits of the industry on Indian economy together with the major concerns. In particular it discusses how computer knowledge can be spread to the hitherto computer illiterate regions through commercial endeavors relating to the outsourcing industry. Ebrahim Hosseini Nasab and Majif Aghaei (2009) employed a generalized method of moments within the framework of a dynamic panel data approach and applies it to the economy of OPEC member countries over the time span of 1990-2007. The estimated reveal a significant impact on economic growth of investment in ICT in the OPEC member countries. Elena Ketteni (2009) studied the relationship between IT and economic performance, to explore whether IT- capital promotes productivity growth.

### Research Methodology

The evaluation of the study is based on the secondary data collected from the annual reports of TCS, Wipro and Infosys company journals and magazines. The profitability ratios and the elements of profitability ratios are employed to analyze the six year data period. The study covers a period of ten years (2007-08 to 2012-13)

RATIO	2010-11			2011-12			2012-13		
	TCS	INFOSYS	WIPRO	TCS	INFOSYS	WIPRO	TCS	INFOSYS	WIPRO
ACID TEST / QUICK RATIO	0.65	1.12	0.93	0.33	1.01	0.81	0.64	0.65	0.84
CURRENT RATIO	2.88	5.22	2.29	2.22	4.88	1.99	2.67	4.82	1.82
FIXED ASSET TURNOVER RATIO	6.53	6.26	2.44	7.45	7.70	2.26	7.74	8.26	2.75
TOTAL ASSET TURNOVER RATIO	1.35	0.95	0.90	1.64	0.93	0.86	1.59	0.99	0.86
ROI	44.45%	34.34%	22.11%	34.87%	33.81%	16.14%	34.51%	30.55%	18.02%
GPM RATIO	0.32	0.37	0.22	0.30	0.37	0.19	0.31	0.46	0.21
NPM RATIO	0.24	0.25	0.18	0.21	0.26	0.15	0.22	0.25	0.16
OPM RATIO	0.30	0.33	0.22	0.30	0.32	0.19	0.29	0.30	0.21
EPS(after exceptional items)	46.27	112.26	19.88	53.07	139.07	22.88	70.99	157.55	25.07
P-E RATIO	18.4	29.01	24.15	18.4	20.71	19.24	18.4	18.42	17.44
DIVIDEND YIELD	na	0.62%	2.43%	na	0.77%	na	na	na*	na

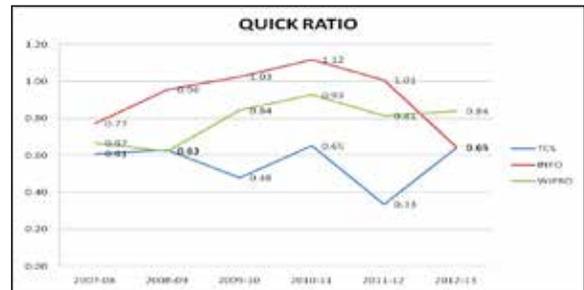
**Comparison chart Exchange Rate vs Revenue earned**

quarterly	exchange rate	INFOSYS	TCS	WIPRO
1st qtr 2008	40.226752	4854	5321.88	59623
2nd qtr 2008	42.7986	5418	6953.37	66108
3rd qtr 2008	49.595626	5786	7277.04	67209
4th qtr 2008	48.503351	4209	8260.59	65567
1st qtr 2009	51.184784	5472	7206.99	63188
2nd qtr 2009	47.701162	5585	7435.23	70244
3rd qtr 2009	48.313277	5741	7648.53	70575
4th qtr 2009	46.568731	4342	7738.17	71877
1st qtr 2010	45.449033	6198	8217.18	71906
2nd qtr 2010	46.475904	6947	9286.39	77719
3rd qtr 2010	45.93359	7106	9663.35	78202
4th qtr 2010	45.073034	5134	10157.59	82714
1st qtr 2011	44.921586	7485	10797.02	84929
2nd qtr 2011	44.804462	8099	11633.49	90070
3rd qtr 2011	47.516484	9298	13203.99	98808
4th qtr 2011	52.436595	6372	13259.33	98164
1st qtr 2012	50.341695	9616	14868.71	104832
2nd qtr 2012	55.935722	9858	15620.75	106397
3rd qtr 2012	54.415429	10424	16069.93	109487
4th qtr 2012	54.652437	6867	16430.09	96078
1st qtr 2013	54.405311	11267	17987.07	97294

Source:Annual Reports16

**Data Analysis**

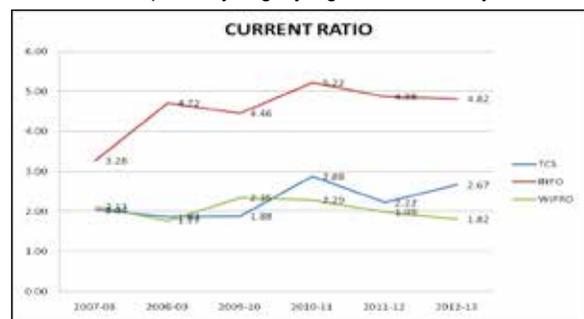
**1. Quick Ratio**



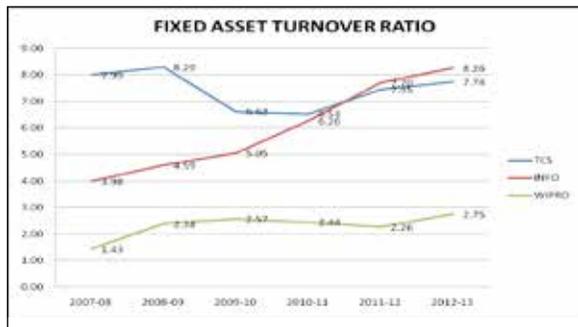
As it is clear from the chart, there has been more fluctuation in the quick ratio of TCS (average being 0.56) as compared to Infosys (average being 0.92) and Wipro (average being 0.79). During the six years tenure, TCS has not seen quick ratio of more than 1 whereas Infosys has been performing well for past few years in terms of its capabilities of meeting immediate liabilities (standard norms of quick ratio is considered 1:1) except for past year performance where its ratio dropped equivalent to TCS. On the other hand Wipro had been performing consistently with quick ratio being closer to one.

**2. Current Ratio**

As far as current ratio is considered both the companies TCS & Wipro have been performing well in terms of meeting their liabilities whereas Infosys reflecting higher ratio. Infosys with an average current ratio of 4.56 has better equipped itself in meeting liabilities but at the same time its ratio has been on higher side (standard norms of current ratio is 2:1) which reflects its resources are non-productive. On the other hand TCS & Wipro has been utilizing its resources as per industry standard and their average current ratio for the period stands out to 2.26 & 2.06 respectively, slightly higher than industry standard.

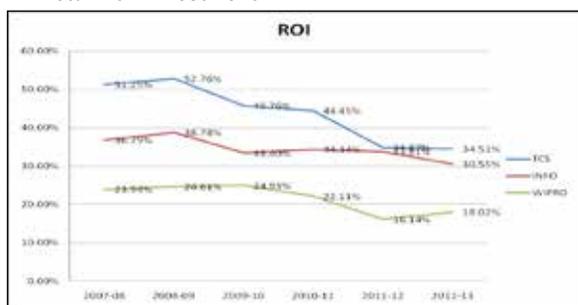


### 3. Fixed Asset Turnover Ratio



Both TCS and Infosys have been able to utilize their fixed asset to good capacity whereas the ratio of fixed asset turnover is lower for Wipro. Infosys & Wipro have shown growing trend in past six years in asset turnover ratio which has proven good sign for the companies. On the other hand, TCS has right from starting been utilizing its assets to the fullest, even though it has experienced some downfall in its asset turnover ratio from 2008-11 subject to financial crises and fluctuation in currency exchange rate.

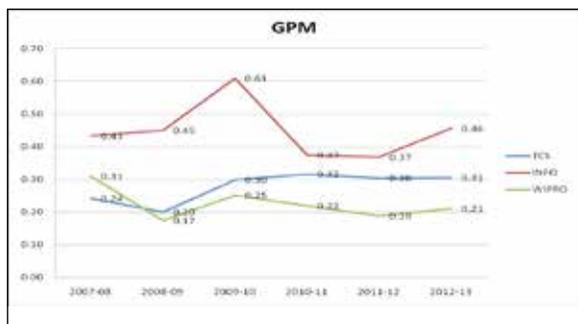
### 4. Return on Investment



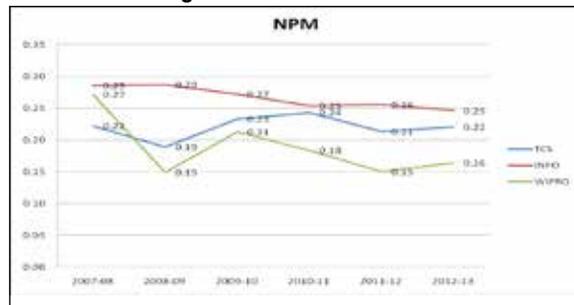
In terms of return of investment, all the three companies have been experiencing a downward trend. Even though TCS has experienced downfall in ROI from 51.25% in the year 2007-08 to 34.51% in the year 2012-13 (average ROI being 44%), it is giving better return than Infosys which has seen downfall from 36.79% to 30.55% in ROI with an average of 35% for the period taken as well as Wipro (lowest amongst three in terms of return) which has experienced a downfall from 23.94% to 18.02% with an average of 22%.

### 5. Gross Profit Margin Ratio

TCS has shown consistent performance in gross profit margin ratio whereas Infosys has faced steep downfall in profit margin ratio in the year 2011. Wipro has also been performing better than both TCS & Infosys. TCS has show GPM ratio of 0.31 in the year 2012-13 which reflects that 69% of the sales contribute towards direct expense and raw material which in case of Infosys is 54% and Wipro is even better at 79%.

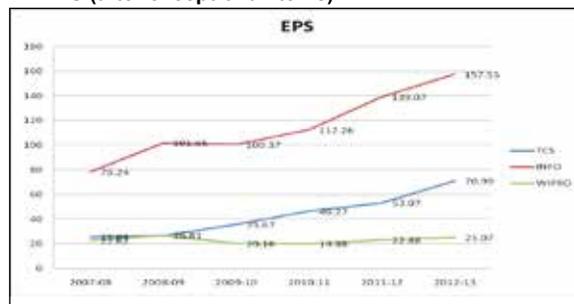


### 6. Net Profit Margin Ratio



All the companies have been able to control their overhead costs which is reflected in their net profit margin ratio. Infosys have been able to drive down its net profit margin ratio from 0.29 in 2007-08 to 0.25 in 2012-13 whereas TCS has show consistency in controlling its net profit margin throughout the period which reflects their better control over their fixed cost. Wipro on the other hand has seen a fluctuating trend in terms of its NPM and has controlled it from 0.27 to 0.16.

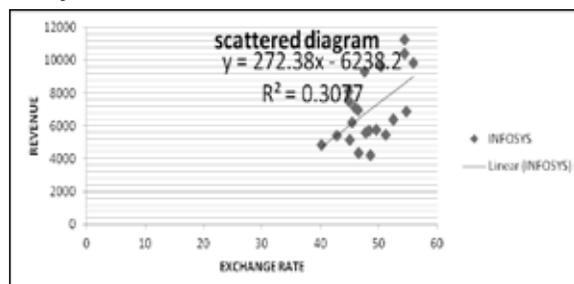
### 7. EPS (after exceptional items)



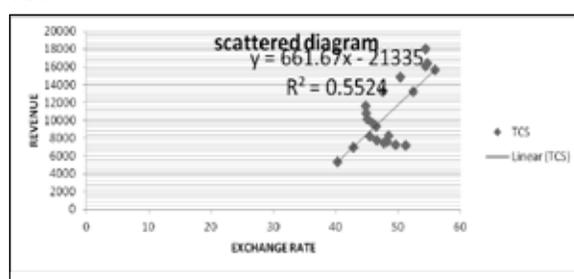
Infosys has been performing very well in share market too where it has promise the investor a good and increasing earning per share. So is the case with TCS which has proven that Indian software sector has been a good area to invest their savings. Comparatively Wipro has not been performing that good in terms of its EPS but has shown some consistency.

### 8. Exposure Risk of TCS & Infosys

Scattered Diagram Exchange Rate vs Revenue earned: Infosys



Scattered Diagram Exchange Rate vs Revenue earned : TCS



### Scattered Diagram Exchange Rate vs Revenue earned : WIPRO



Correlation between revenue earned and exchange rate between Indian Rupee and US Dollar for every quarter end has been recorded and correlation between the two variables (revenue earned and exchange rate) has been analyzed. During the past 24 quarters Indian currency has depreciated by approximately 35% and during the same period the revenue of TCS Wipro and Infosys has increased by approximately 230%, 64% & 130% respectively. There are many reasons attributing to increase in revenue of both companies. One reason attributing to it is the depreciation of Indian currency. In case if currency would have remain same during the period than the revenue increase in case of Infosys would have been only 71% , in case of Wipro it would have been just 20% and in case of TCS it would have been only around 150% instead of 130%, 68% and 230% respectively.

Further analyzing the coefficient of determination between the two variables revealed the result that in case of TCS about 55% of the variable explain that there is a strongly positive correlation between currency depreciation and revenue earning ( $r=0.74$ ), that in case of Wipro about 41% of the variable explain that there is a strongly positive correlation between currency depreciation and revenue earning ( $r = 0.64$ ) and in case of Infosys about 30% of the variable explain that there is a positive correlation between currency depreciation and revenue earning ( $r = .55$ ). The result also reveals that all three companies like other companies of this sector are exposed more to foreign exchange risk as major part of their revenue comes from export.

### Conclusion

The study reveals data and statistics of the three software giant about their financial performance and exposure risk to foreign exchange market, thereby giving an idea about Indian software industry, its growth and role that this sector play in country's GDP. It also gives scope to researchers to further study and analyze and develop a model which can help Indian government to improve Indian trade deficit by promoting Indian software industry and promoting more small and medium size software firms thereby increasing export revenue, at the same time coming up with lucrative schemes to lure FDI in this sector to strengthen Indian firms competing at global level.

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