Major Project

on

WORKING CAPITAL ANALYSIS OF INFOSYS LIMITED

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CERTIFICATE

This is to certify that the Major project titled **"Working capital analysis of Infosys Ltd."** is a bonafide work carried out by **Mr. Anand Adlakha** of **EMBA 2017-19** and is submitted to Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 in partial fulfilment of the requirement for the award of the Degree of Master of Business Administration-Executive.

Signature of Guide **Signature of Head (DSM)**

Dr. Archana Singh

Seal of Head

Place:

Date:

DECLARATION

I, Anand Adlakha, student of **EMBA 2017-19** of Delhi School of Management, Delhi Technological University, Bawana Road, Delhi – 42, hereby declare that the Major Project report **"Working Capital Analysis of Infosys Limited"** submitted in partial fulfilment of Degree of Master of Business Administration- Executive is the original work conducted by me.

The information and data given in the report is authentic to the best of my knowledge.

This report is not being submitted to any other University, for award of any other Degree, Diploma or Fellowship.

Place: **Anand Adlakha**

Date:

ACKNOWLEDGEMENT

I would like to express my sincere gratitude towards my Guide, Dr. Archana Singh (Assistant Professor, Delhi School of Management, DTU) for her support and valuable guidance throughout the duration of the project. I thank her for the constant encouragement and support at every stage.

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ABSTRACT

Working capital is considered life line of any business; it is one of the factors that determine strength of financial position of any company. On the basis of availability of working capital, management determines or takes decision whether there is need for loan to fund the operations or they can transfer the money from working to investment as there is enough working capital available for operations. They can transfer the excess to earn higher returns.

The aim of this study is to check the working capital of Infosys limited and published financials of last 5 years has been used to check the same.

First working capital requirement is checked for Inventory (all types of material i.e. Raw Material, WIP and Finished), Debtors Conversion period and payable Conversion period.

After checking the values for all, net operating cycle is period which is Gross operating cycle minus Payable conversion period is checked; this value determines availability of working capital in company.

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1. EXECUTIVE SUMMARY

Financial Analysis is essential to understand the working capital situation and helps to understand the short- term solvency position of a firm and the impact of the locked-up capital on profitability. Its management is essential for successful and effective running of businesses.

The ultimate purpose of working capital research is to figure out the impact of it on Risk, Profit and Liquidity analysis for Infosys limited. The data for study has been collected from secondary sources i.e. quarterly published financials to exchange used for various financial analysis. This data is also used to find-out whether there is need for additional long-term funding for running/managing its operations, or organization can plan to move additional cash into long-term investment.

The analysis of Working Capital for Infosys has been broken down in the following subsections.

1. Liquidity position of company
2. How quickly they can collect their trade Account receivables
3. Sufficiency of current assets in comparison to current liabilities.
4. Timelines within usually current liabilities are due for payment
5. Analysis of Current Asset Profile - how quickly we can sell it and converted into cash
6. Analysis of Inventory Assets – period required to convert inventory into cash.
7. Observations/view point of management

Following is the summary of the major findings of this study:

- **Current Ratio,** Infosys's current ratio for FY 2019 was 3.03 times and its average current ratio over the last 5 financial years has been 3.71 times which indicates that the Company is not facing any liquidity problems to meet its short- term operations objectives. However, FY 2018-19 have seen decline in Current ratio as compared to previous 5 years average.
- **Debt to Equity Ratio,** Companies operating with high debt to equity are considered to be riskier. The industry's desirable debt to equity ratio is 1.0, however generally it is said D/E is good till then it is up to 2:1. Infosys's is debt free company indicates that the Company is operating with zero debt which is very healthy sign of sound financial organisation.

- **Interest coverage ratio** indicates the ability of company to pay Interest on debt taken by it, whether they are able to service it easily or not. Debts are taken for financial leverage also as it gives advantage to company by reduction in taxes. Infosys's interest coverage ratio was Nil and its average interest coverage ratio over the last 5 financial years has been Nil which indicate that the Company is fully debt free and can utilize its cash generated from operations freely.

Liquidity And Solvency Ratios	Mar'19	Mar'18	Mar'17	Mar'16	Mar'15
Current Ratio	3.03	3.83	3.80	4.50	3.41
Quick Ratio	2.96	3.74	3.77	4.47	3.38
Debt Equity Ratio	--	--	--	--	--
Long Term Debt Equity Ratio	--	--	--	--	--
Management Efficiency Ratios					
Inventory Turnover Ratio	-	-	-	-	-
Debtors Turnover Ratio	5.73	5.36	5.71	5.86	5.93
Investments Turnover Ratio	-	-	-	-	-
Fixed Assets Turnover Ratio	6.24	3.45	3.66	3.67	-
Total Assets Turnover Ratio	1.17	0.98	0.87	0.88	-
Asset Turnover Ratio	1.16	0.94	0.92	0.99	1.05

Figure 1: Summary of Ratio

- **Turnover/Efficiency**: Infosys has maintained its position in recovering money from client from last 5 years, debtor turnover is more or less flat. While the fixed asset turnover has improved which is good sign as company is utilizing its Fixed asset efficiently to generate sales.
- **Summary of Financial Strengths**

  The satisfactory current ratio (3.03 times) and quick ratio (2.96 times) reflected good working capital management and liquidity position. Satisfactory gross profit margin, Net Profit Margin shows sound operations management.
- **Summary of Financial weaknesses**

  Total assets turnover ratio (1.17 times) shows less frequency with which the assets are used to generate revenue for company, 1.17 is very less. Current ratio is lowest in last 5 year which is not good sign. The market fluctuation may also be a weakness and Currency was very volatile in 2018-19, if the Rupee sees a bullish run, it would result in reduced revenue and margins for Infosys. However, in 2018-19 rupees have depreciated a lot which is windfall for IT companies in India.

2. OBJECTIVES

Working capital management is backbone of any business, its proper management ensures growth in business as well effective utilization and management of funds. No organization can afford to ignore its importance because it ensures

a) Company is solvent, can manage its operation and day to day fund requirement very easily
b) Longer term profitability of company is not impacted funds used in working capital

The major objectives of this study are to understand the Working Capital Management of Infosys through financial analysis of its statements in Annual report 2018-19. The working capital analysis has been done to study the following

1. Whether current asset is enough in comparison to current liabilities.
2. Analyse the profile of Current Asset in terms of liquidity – how quickly they can be liquidated if need arises
3. Period in which current liabilities are due for payment- Analysis of AP
4. Period in which Account Receivables will be recovered- Analysis of AR
5. Period in which inventory can be into cash- Analysis of Inventory profile
6. Observations from management commentary in Annual report to pick up key points for working capital.

Need of the study-Analysing Infosys Working capital

Working capital helps to understand creditworthiness of any company, if there is enough working capital available for operations then it is assumed that lower credit risk associated with the company. Also, it shows corporate culture and type of governance in it, if company pays its creditor or lender on time and does not make default then every party would be happy to work with company, which indirectly leads to better reputation and good will for company. The outcome of maintaining enough working capital would lead to creation of shareholder wealth which is the aim of any company.

It also helps lender understand how much money business will be able to repay from its operations and how much money it will need to borrow to run smooth operations. Accordingly, It will help lender to take decision.

3. LITERATURE REVIEW

3.1 Significance of Working Capital

Better control/management of Working capital is essential for success of any organisation and it is backbone for any business. Working capital is needed for one year or shorter period for running/managing the operations of business i.e. Operating cycle. It is basically required for routine or regular business activities like purchase of material, wages, direct & Indirect expenses. In simple words, we can say, It is needed for running & maintaining everyday activities of business/operations. It is not required for long term capital of business, instead it is trading capital not retained in business for longer period. In simple words it is thru working capital day to day business activities are managed.

Working capital is part of total capital which is needed for short term business requirement usually less than year in normal business terms such as cash, Debtors/money receivables from clients, money invested in Inventories. Money invested in operations i.e. Current asset are quickly converted in to cash in business operations. In ordinary course of business current assets are converted from one form to another e.g. Cash to Stock then Inventory to AR (money receivable from clients) and from A/R to cash. It is known as revolving or circulating capital.

One can understand the importance of effective management of working capital from it, till the time a profitable company is able to manage/pay its expense from cash received from debtors/cash sales till then company have managed its working capital effectively. If they are not then they would not need financing from long term resources which means more burden on bottom line. If they had managed it properly which means more contribution to bottom line by way of effective utilization of working capital.

3.2 Working Capital Approach

Usually two approaches are used to understand the working capital of any company

- Balance Sheet
- Operating Cycle

Balance Sheet Approach

Working capital refers to Gross working capital i.e. amount invested in current asset of organisation, it is part of capital which is invested for operations of business. Usually approx. 50% - 60% of the Total capital are invested in current asset of manufacturing company, depends upon Industry to Industry, some capital intensive requires even more.

Current asset are those assets of companies which can be converted in cash quickly, a short period of time, say one year in normal course of business. The Current Assets includes:

- Cash in hand or Bank deposit
- Account Receivables i.e. Debtors after reduction of provision for bad debts
- Inventory i.e. Stock in hand
- Expense paid in advance
- Accrued Income
- Bills receivables
- Short term investment
- Loan and advances for short period of time

Net working capital is arrived by reducing current liabilities from current assets. Current liabilities are those liabilities which will be due for payment (Claims of outside parties) within one year in ordinary course of business. It includes the following:

- Bank overdraft
- Account payables i.e. Creditors
- Expense outstanding – due but not paid
- Prepaid Income
- Bills payables
- Loan and advances taken for short period of time
- Sundry Creditors
- Dividend payable
- Provision for taxation

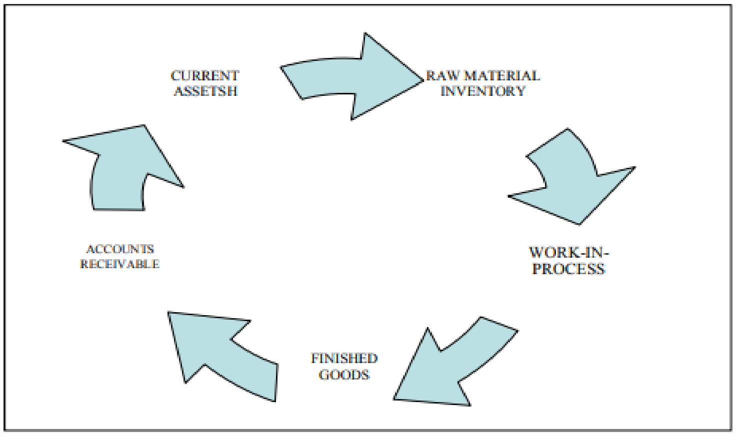
It (N.W.C) may be positive or negative. It is always good to have positive Net working capital which shows ability of company to pay its debt easily which will fall due within a year. Positive Net working capital arises when Current assets are higher than Current liabilities. However Negative Net Working Capital is not a good signal for any company which means they are not able to pay their due on time with the current assets they have, they may need to liquidate long term assets to meet the demand of Current liabilities.

Operating Cycle Approach

There is difference between Current asset and Fixed assets in terms of liquidity. To get back money invested in Fixed assets may requires company couple of years however amount invested in current assets turned many times in a year. Investments in Current Assets i.e. Stock and amount receivables from customer are recovered during the firm's operating cycle i.e. usually less than a year.

These things affect Cash flows, of any company, which are neither synchronized nor certain, reason being cash outflow happens before cash inflow. Amount first invested in stock then it is converted in sale and finally amount is recovered from clients. However, Cash outflows are certain, but inflows are not, difficult to forecast as there is gap between sales and collection of money. So, company is required to invest in current asset for smooth functioning of operations.

Firm must ensure liquidity at any cost from purchase of materials to payment of expenses, as it is difficult to match between Cash inflows and outflows. Cash is kept for future obligations and investment is made in stocks for smooth functioning of operations. Similarly Finished goods are kept as demand of products may arise at any point of time from new/unknown customers also. Debtors are created due to competitive reasons and for marketing reasons, every organization want to sell goods on cash however it is business requirement to sell goods on credit also. Thus, a firm has to male enough investment in Raw materials, Finished goods as well as in debtors, for smooth, and continuous production and sales.



Source: Ravi M. Kishore, "Financial Management", Taxmann's, New Delhi, 3rd edition, p. 174.)

Figure 2: Operating Cycle.

Gross Operating Cycle (GOC)

It is combination of Inventory i.e. Raw material +Work in Progress + Finished Goods and Accounts receivable (debtors) conversion period is called as Gross Operating Cycle (GOC).

GOC = Inventory conversion period (RMCP + WIPCP + FGCP) + Debtor Conversion Period

$$\text{RMCP} = \frac{\text{Average Stock of RM}}{\text{Average Stock of WIP}}$$

$$\text{WIPCP} = \frac{\text{Average Stock of WIP}}{\text{Total cost of production per day}}$$

$$\text{FGCP} = \frac{\text{Average Stock of Finished Goods}}{\text{Total cost of Sales per day}}$$

$$DCP = \frac{\text{Average Accounts Receivable}}{\text{Credit Sales per day excluding returns}}$$

The PDP- Payable Deferred Period is period which any company is/want to delay making payments to vendors for all type of purchases made.

Where,

$$PDP = \frac{\text{Average Payments}}{\text{Credit Purchases per day excluding returns}}$$

The Net operating cycle (NOC) is difference between Gross Operating Cycle and the PDP (Payable Deferred Period).

Thus, NOC = GOC – PDP

3.3 About Infosys Ltd.

Infosys is an IT services, business solutions and Consulting company offering transformational and outsourcing services to global companies all over the world. Infosys uses its delivery across globe capability and full portfolio – consulting and enterprise solutions, assurance services, application development and maintenance, engineering services, IT infrastructure services, BPO services – to deliver high quality, impactful solutions leveraging the latest technologies to customers across globe and industry verticals. Its geographic footprint consists of North America, Europe, India and rest of world (Latin America, the United Kingdom, Asia-Pacific and Middle East and Africa).

Infosys considers from the reporting point of Industrial vertical is considered as primary segment to business. The key verticals are Financial Services, Retail and consumer goods, Energy and Utilities, Communication and services, Life Science, Healthcare and Insurance, Manufacturing and Others.

Strategy: The following table shows strategy for the Infosys business success

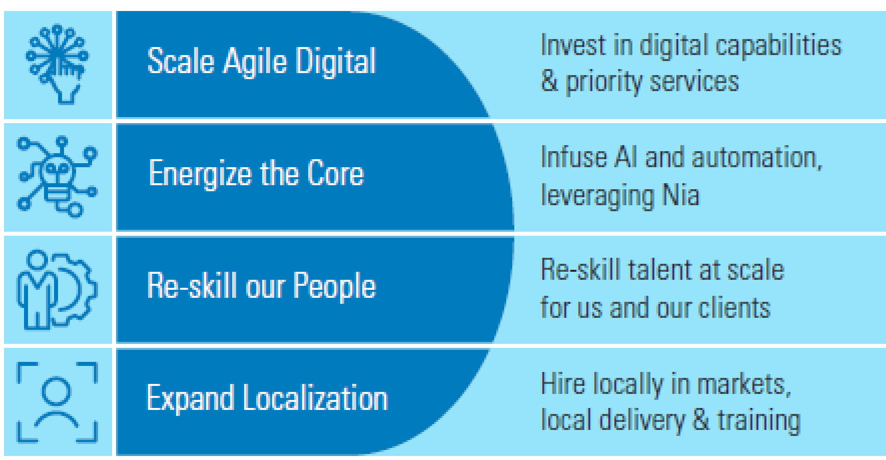


Figure 3: Strategy - Source Infosys Annual Report

4. RESEARCH DESIGN

This study is based on descriptive research design as it relates to observation of the current working capital management at Infosys through analysis of the relevant data.

The information is collected through secondary sources/company financials submitted to exchanges during the analysis. The information was utilized for calculating performance evaluation and based on that, interpretations were made.

Sources of secondary data:

1. Most of the calculations are made on the financial statements of Infosys quarterly published financials to stock exchanges.
2. Referring standard texts and referred books collected some of the information regarding theoretical aspects.

The data used in this dissertation is taken from Infosys Ltd. Annual Report 2018 and last five years published financials till Mar'19 (issued to stock exchange on 12th April 2019)

5. DATA ANALYSIS AND INTERPRETATION

Working capital analysis is done to determine whether Current assets are adequate in comparison to current liability as well as how quickly it can be liquidated/converted in to cash, if need arises to meet the needs of operations or achieve the objective of sound financial organization.

It helps management to take decision whether they can transfer the additional short-term funds available to long term to earn higher rate of return as compared to present investment in current because they have more than working capital required for business or company may need additional long-term funding if working capital of the organization is not enough.

The analysis of Working Capital for Infosys Ltd. has been broken down in the following sections.

Balance Sheet Approach

1. Whether Current assets are enough in comparison to current liabilities.
2. Understand the Current Asset profile in terms of liquidity and quality- how quickly current asset can be liquidated to meet the need of operations or to achieve the objective of organization.

Operating Cycle Approach

3. To understand the timelines of current liabilities when they will be due for payments
4. To understand the timelines of Account Receivables
5. To understand the time required to convert inventory in to cash and analysis of Inventory in current Assets

Other information sources for relevant interpretation.

6. Observations from management commentary in Annual report to pick up key points for working capital.

5.1 Sufficiency of current assets enough in comparison to current liabilities.

Gross Working Capital: means Firms investment in current assets – something which can be converted in cash in one year/same Financial year itself. It is always positive number. It is different from Net working capital which is Current Asset- Current Liability. Higher gross capital helps companies to borrow from financial institution because it shows how much funds are available in company in the form of current asset.

Net working capital: It is difference between current assets and current liabilities and calculated as below

Net Working Capital = Current Assets – Current Liabilities

It helps understand whether current asset are enough to pay current liabilities of the company. Positive net working capital means company financial system is sound enough to pay its current liability from current asset itself or money generated from operations. They don't need to liquidate its long-term asset to pay current liability because current liability is something payment for which may arise with in current year/one year itself. It also helps whether excessive money available can be shifted to long term if they have networking capital more than required by business. Because it is not sound to invest money in short term asset as they generate lower returns as compared to Long term Asset. Decision can be made accordingly.

Net vs Gross Working Capital of Infosys

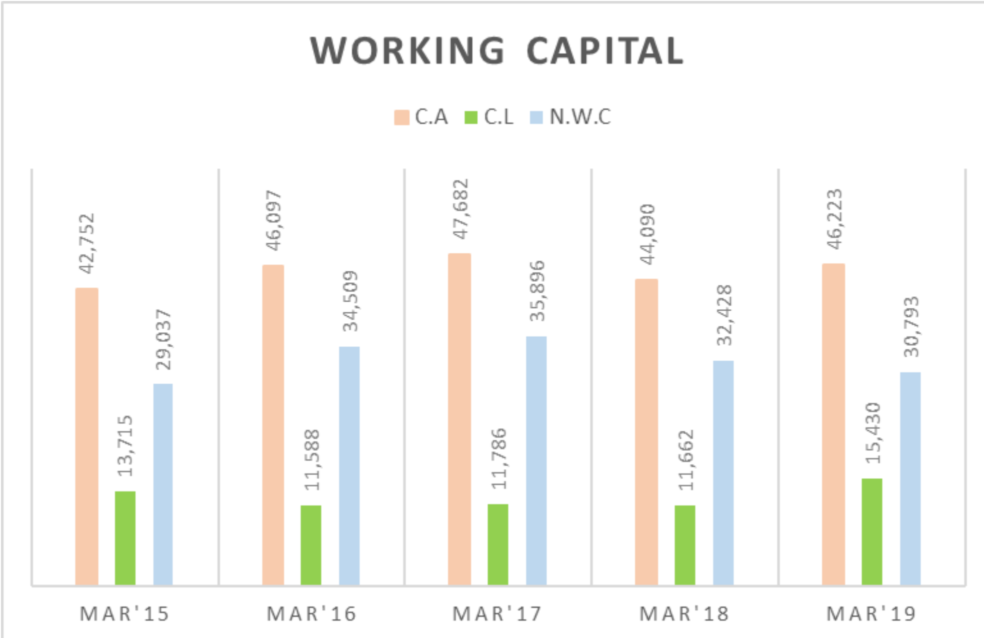


Figure 4: Net vs Gross working capital

For Infosys following are the observations

1. The current assets are 46,223crs in Mar'19 while the current liabilities are 15,430crs.
2. Implying that current assets should be sufficient to meet the requirements of current liabilities, but the analysis of the quality of current assets needs to be performed to understand their cash conversion power.
3. The current liabilities have not increased significantly over the last 5 years. However, in 2019 it has increased by 32% as compared to Current Asset which increased only 5% on YoY basis.
4. Current assets are, more or less flat, at same level for last 5 years (only 8% increment in last 5 years), which again needs to be analysed for their quality to understand whether this increase has been in terms of cash or cash equivalent securities or inventories or short- term investments.

Liquidity Ratio

Creditors usually watches this ratio carefully in any companies with which they deals, it is one of the most important ratio that measure Liquidity of the company. This will measure ability of the firm to pay its creditors /short-term obligations.

The level of liquidity needed varies from industry to industry. Certain Companies or industries are more cash-intensive like Steel than others like Software companies. For example, steel companies will need more cash to buy inventory constantly than software firms, so the liquidity ratios of companies in these two industries are not comparable to each other. It is also important to review carefully a company's trend in liquidity ratios over a period of time.

Current ratio - The current ratio measures current assets against current liabilities of the company. The current ratio shows ability of the company to pay off its short-term liabilities in any emergency like situation by liquidating its current assets to cash. A higher the ratio means a high level of liquidity and very remote chance of a cash issues.

Quick ratio – It is much stricter than the current ratio because it does not include stock to measure quick liquidity. This ratio will compare cash in hand including Bank balance, marketable securities which are short term in nature and accounts receivable to current liabilities. The most important exclusion is inventory for quick ratio calculation, which can make up a large portion of current assets in some industry but may not easily be converted to cash. So, it is excluded for the purpose of calculations.

Cash ratio – It is calculated by dividing the cash and Marketable securities to current liabilities, it is called most conservative liquidity ratio.

Cash in hand/ Bank balance and short-term Securities which can be sold off very quickly called marketable securities represent the most liquid assets of any company. Short-term marketable securities include ST liquid assets such as Share/stocks of public listed companies, bonds and options held for period maximum up to one year. During normal market conditions, these securities can easily be liquidated on an exchange/market.

Analysis of Liquidity

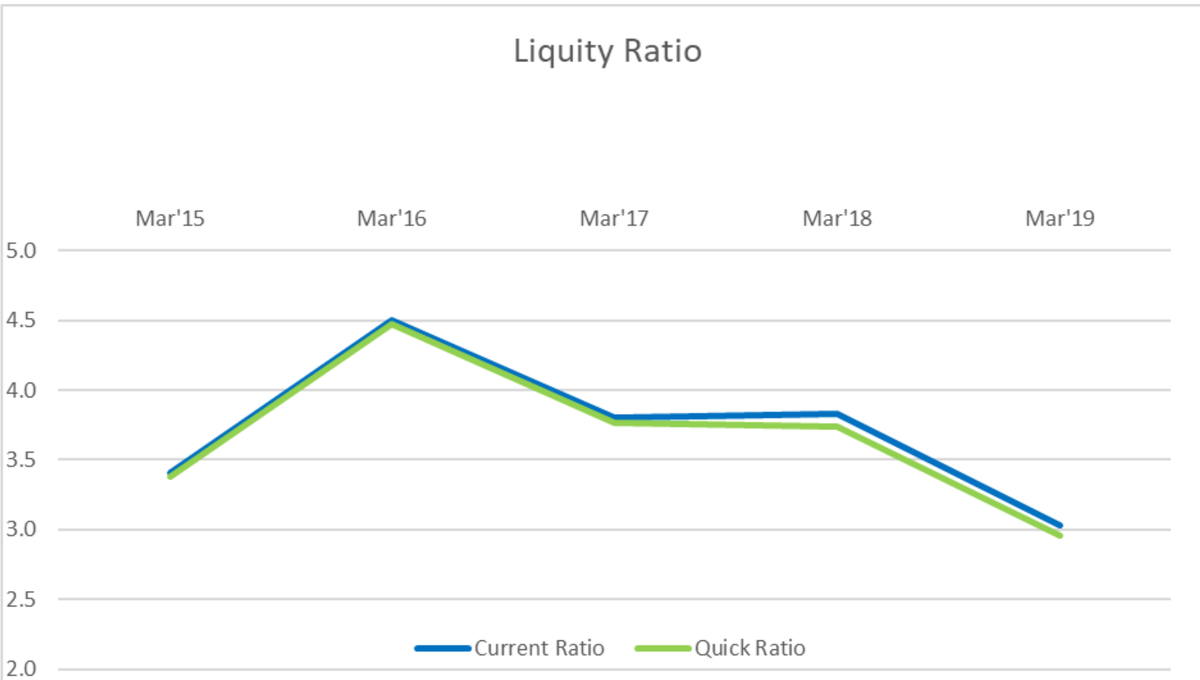


Figure 5: Infosys Liquidity Ratios

For Infosys following are the observations for liquidity

1. The Current and quick ratios are more or less similar, it is very common in IT industry reason being there is no Inventory in these types of organization.
2. Another way to look at liquidity is through pure cash ratio, which has decreased over last three years, in fact has halved, this is due to change in configuration of current assets.

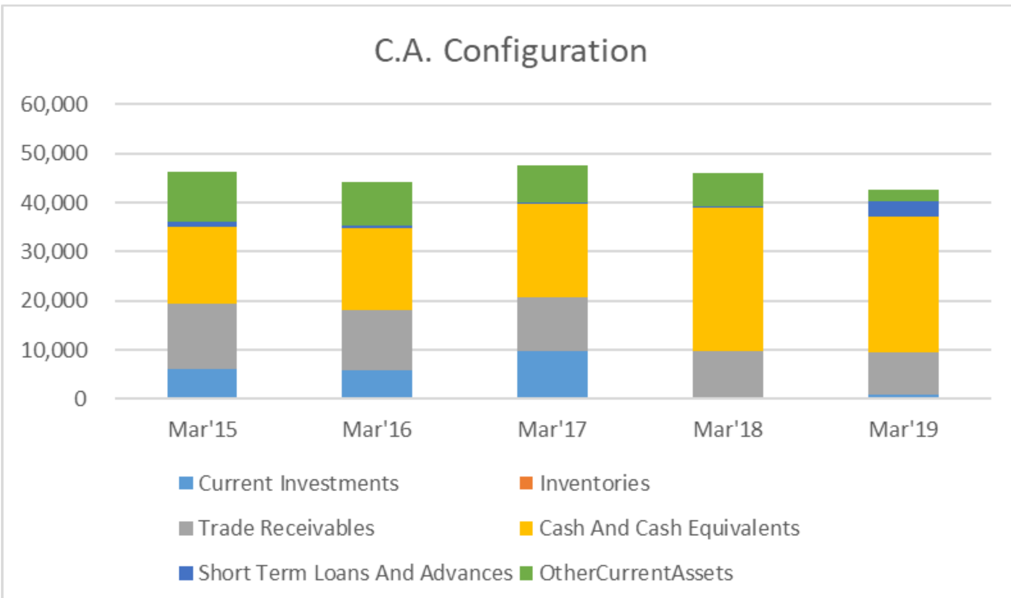
5.2 Analysis of Current Asset Profile

An analysis of current asset profile is needed to understand the absolute liquidity. And to understand the profile of the current assets, how quickly they can be sold off and converted into cash or how much are the inventories a part of current assets.

Current Asset Profile of Infosys

Following are the observations

1. Current Asset profile is a mix of the following Current Investments, Trade Receivables, Cash and Cash equivalents, Short term loans and advances that Infosys has given to outside companies or subsidiaries.



	Mar'15	Mar'16	Mar'17	Mar'18	Mar'19
Current Investments	6,077	5,906	9,643	2	749
Inventories					
Trade Receivables	13,370	12,151	10,960	9,798	8,627
Cash And Cash Equivalents	15,551	16,770	19,153	29,176	27,722
Short Term Loans And Advances	1,048	393	310	355	3,231
OtherCurrentAssets	10,177	8,870	7,616	6,766	2,423

Figure 6: Current Asset Profile

2. It is observed that the current investments – which would be in terms of marketable equities, treasuries bonds and government securities etc. This investment has increased considerably over the last three financial years which is very positive sign, It means company have made investment in higher return securities for short period of time.

3. On the other hand, this spare cash can also be used for long term investments to further increase the profitability of the company in long period.
4. There is no Inventory in Infosys Ltd. Which is very common in IT and ITES industry, as it is not a manufacturing company.
5. Trade receivables have increased steady over the period of 5 years, which is positive as the company is in growth trajectory. But it would be interesting to look at the receivables turnover period to understand whether the payment terms have changed, or the receivables are actually due to increased revenues. It is very important metrics to understand which will impact significantly working capital of company. Also, DSO days is very important metric to see in how many days company receives back its money from customer, higher the DSO days means company money is blocked with customer which is not good sign. Always company tries to receive back as quickly as possible.

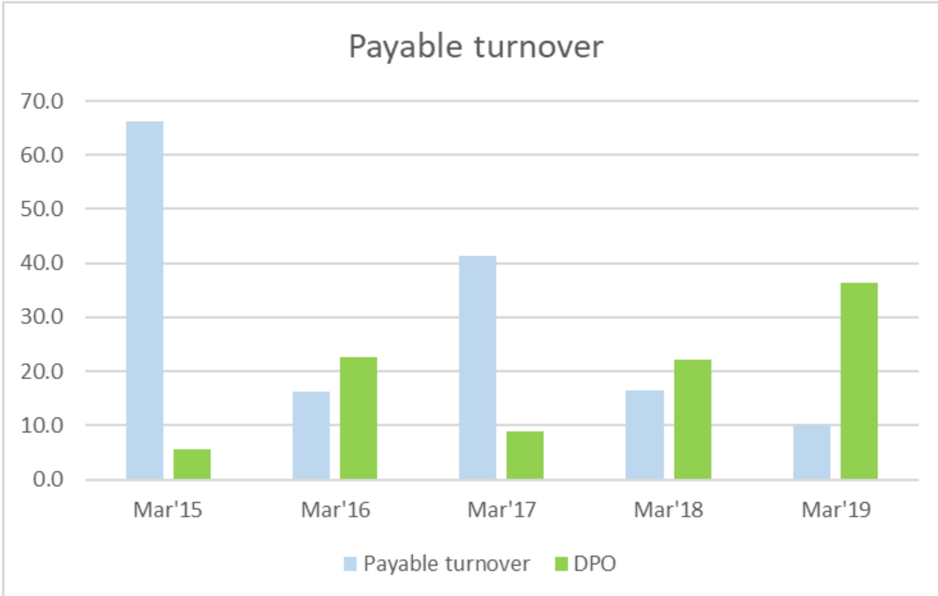
5.3 Timelines within which current liabilities are due for payment

Payable turnover ratios is calculated to find out how quickly company is able to make payment to its creditors. It is calculated by dividing credit purchases by average amount payables.

It is important to note that only credit purchase is used for calculation not all because purchases made in cash does not affect payable turnover. Payable means money owned by company and it has to be paid back as quickly as possible obviously with in contractual credit terms.

Higher the ratio considered to be sound company, but it may be possible company is not enjoying the financial leverage it may have, till the time they are able to make payment with in contractual credit terms approved by suppliers. An unusually high ratio may suggest that a firm is not using the credit period extended to company by supplier, or it may be possible that company taking benefit of advance/early payment discounts.

A low payables turnover ratio mean company is not able to make or not making payment on time to its creditor or they are enjoying benefit of lenient payment terms offered by suppliers.



	Mar'15	Mar'16	Mar'17	Mar'18	Mar'19
Payable turnover	66.3	16.2	41.4	16.5	10.1
DPO	5.5	22.6	8.8	22.1	36.3

Figure 7: Infosys Payable Turnover

For Infosys following are the observations

1. The data shows a payable turnover have moved significantly as payable have increased over the years
2. This ratio has moved from 5.5 to 36.3 times over last 5 years, that could be a result of changing nature of associated business with changing payment terms.
3. Extend of decrease of payable turnover is very fast than receivables turnover, which should be looked at from changing payment behaviour of Vendors against Customers.

5.4 Timeline Analysis of Account Receivables

The receivables Turnover ratio is calculated by diving Credit Sales by Accounts receivables (average). It is important to note only credit sales is considered for calculation of Receivables turnover as cash sales does not affect debtor.

This measure how quickly company is able to recover money from client to whom sales is made on credit terms, this is very important metrics for effective and efficient management of working capital. Because if company is not able to recover money from client on time then it won't able to run its operation. It is very essential for any organisation that its clients are making payment timely as per credit terms.

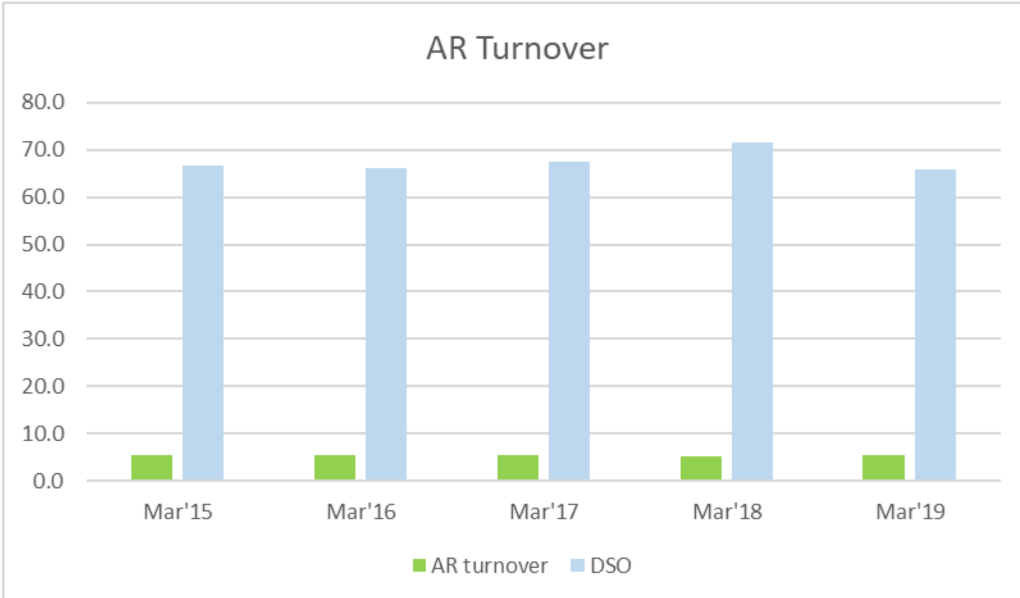
To improve DSO, usually practice in Industry to offer cash discount/early payment discount so that there is no risk of recoverability of money from client.

$$\textbf{Days Sales Outstanding} = \frac{\textbf{Average Accounts Receivables}}{\textbf{Net Sales}} \times \textbf{360}$$

The receivables turnover shows how many times in year company is able to recover money from customer, indirectly measure whether company have effective policy in extending credit to customers and recovering back from them.

For Infosys following are the observations

1. The data shows a receivable turnover 5.5 which in turn amounts to conversion sales into cash of more than 2.2 months (~66 days). It has improved over the last year from 72 to 66 days
2. Most of the Industry DSO is around 65-70 days, so Infosys DSO looks reasonable considering Industry average. It implies that the credit policy of the contracts is lenient, or it may also mean that customers are delaying/struggling to make payments on time.
3. Company should closely monitor this ratio and should tend to improve it as much they can for new contracts and improve with existing customers by leveraging its relationship channels by offering them cash discount/early payment discount etc.



	Mar'15	Mar'16	Mar'17	Mar'18	Mar'19
AR turnover	5.5	5.5	5.4	5.1	5.5
DSO	66.6	66.2	67.5	71.6	65.9

Figure 8: Infosys Receivables Turnover and days for payment

5.5 Analysis of Inventory Assets – period required to convert inventory into cash.

Inventory turnover ratio is calculated by dividing COGS by Average Stock. Average Stock= (Opening stock+ Closing stock)/2

A higher inventory turnover means less resources are blocked in inventory and quickly it is converted in to sales which is the aim of any organization and shows effective inventory management by company.

$$\textbf{Inventory Turnover Ratio} = \frac{\textbf{Cost of Goods Sold}}{\textbf{Average Inventory}}$$

However, there are usually two sides to the story of any ratio.

Inventory turnover measure will be industry specific, in some Industry because of perishable nature of goods there will be very high turnover ratio, however in expensive goods turnover ratio will be low because of the nature of the goods in which company is dealing.

	Mar'15	Mar'16	Mar'17	Mar'18	Mar'19
Inventory turnover	0.0	0.0	0.0	0.0	0.0
Days to sell Inventory	0.0	0.0	0.0	0.0	0.0

Figure 9: Infosys Inventory Turnover Ratio Trend

For Infosys following is the Analysis of Inventory Turnover ratio from the data.

1. Inventory turnovers are very specific to the industry and in services industry these turn out to be NIL. It's not too relevant for service industry.
2. As we can see above, the inventories are NIL as compared to sales, typical for a service industry.
3. Ratio represents period/time money blocked in inventory and turnover represents how quickly inventory is converted in to sales. Higher the better and vice versa.

4. GOC = receivables turnover + inventory turnover
   = 65.9 + 0.0 = 66 days

   NOC = GOC – Payables turnover
   = 66 –36 = 30 days

6. KEY OBSERVATIONS FROM THE MANAGEMENT COMMENTARY IN ANNUAL REPORT

The Observations from Management Commentary in the annual report are discussed as follows

Comparison with Industry

Infosys is performing well in the industry in last five years with decent growth rates, which implies that company is leveraging all its assets and relationships to drive growth, effectively and efficiently. This should go well with investors, lenders and creditors, customers and all other stakeholders alike and fixed working capital is bound to increase.

Business outlook

Key takeaways from management outlook in Annual report:

As commented above, Infosys is investing to ride the next wave of IT expansion, aligning to Industry revolution.

The next industry revolution would be centred on digital enterprise. As per the management commentary Infosys is making strategic investments to be ready for newer opportunities that the global economy will bring in. The higher investments were also evident in the financial analysis in the above sections. Further Infosys should focus on driving the investments as below

- Continued investments in Digital through large scale reskilling, external hiring, IP development and successful leverage of deep contextual knowledge

- Focus on Research and Innovation efforts leveraging in-house expertise, alliance partnerships, and strong connections in the start-up ecosystem
- Strategic focus on Agile, Cloud, and Automation
- Strong customer-centricity which results in organization structures (and reorganizations) that are always aligned to customer needs

The above observations clearly indicate that fixed working capital is bound to increase, and Infosys should work towards financing sources for this.

Global Economic and Political Scenario

Key takeaways:

The economic and political headwinds are a reality that a globally diversified companies are to deal with. Some of the key strategic focus points should be on

a) Diversification of business across geographies and industry verticals to reduced dependencies in changing political dynamics countries of US and UK
b) Targeting additional market segments to be counter cyclic
c) More local hiring and focus on local service delivery wherever applicable
d) Increased outreach to legislative, political and regulatory authorities to create a positive image.

The above interprets to the fact that working capital variations are likely in future and the readiness for increase in working capital sources as well instruments to park the working capital in higher return areas would be essential.

Talent Management

Management Comments in Annual Report

Re-skill our employees

In working alongside our clients on their digital journey, we are actively working with our employees to enable their re-skilling. Our platform, Lex, makes learning accessible, relevant, fun, and drives outcomes that matter. Increasingly, we are taking this learning to our client organizations as well.

Key takeaways:

The talent management numbers are impressive, attrition, slightly higher than last year. Overall good talent management result is driven either by

1. Well managed HR policies of Infosys or
2. Overall slowness in job market in major delivery centres like India.

In either case it is beneficial to company to control costs by reducing the annual pay rise as the employees are stable and lower spend on retention can be achieved.

The above indicates a healthy retention and increase in employee costs, working capital requirements would increase in future.

7. SUMMARY OF FINDINGS AND CONCLUSION

Following are the key observations from the Infosys study above:

- **Current Ratio,** Infosys's current ratio for FY 2019 was 3.03 times and its average current ratio over the last 5 financial years has been 3.71 times which indicates that the Company is not facing any liquidity problems to meet its short- term operations objectives. However, FY 2018-19 have seen decline in Current ratio as compared to previous 5 years average.
- **Debt to Equity Ratio,** Companies operating with high debt to equity are considered to be riskier. The industry's desirable debt to equity ratio is 1.0, however generally it is said D/E is good till then it is up to 2:1. Infosys's is debt free company indicates that the Company is operating with zero debt which is very healthy sign of sound financial organisation.

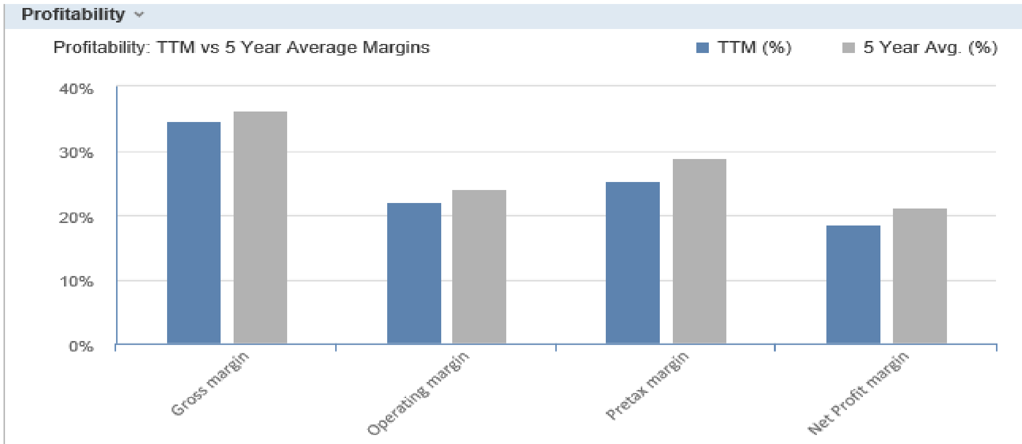
- **Interest coverage ratio** indicates ability of company to pay Interest on debt taken. Infosys's interest coverage ratio for FY 2019 was Nil as its debt free company and it indicate that the Company has been generating enough resources that it does not require debt from market/financial institutions.

Liquidity And Solvency Ratios	Mar'19	Mar'18	Mar'17	Mar'16	Mar'15
Current Ratio	3.03	3.83	3.80	4.50	3.41
Quick Ratio	2.96	3.74	3.77	4.47	3.38
Debt Equity Ratio	--	--	--	--	--
Long Term Debt Equity Ratio	--	--	--	--	--
Management Efficiency Ratios					
Inventory Turnover Ratio	-	-	-	-	-
Debtors Turnover Ratio	5.73	5.36	5.71	5.86	5.93
Investments Turnover Ratio	-	-	-	-	-
Fixed Assets Turnover Ratio	6.24	3.45	3.66	3.67	-
Total Assets Turnover Ratio	1.17	0.98	0.87	0.88	-
Asset Turnover Ratio	1.16	0.94	0.92	0.99	1.05

Figure 10: Summary of Ratios

- **Turnover/Efficiency**: Infosys has maintained its position in realizing the revenue stagnant receivable turnover from last 5 years. The payables turnover has also increased while the fixed asset turnover has improved.
- **Summary of Financial Strengths**

  The satisfactory current ratio (3.03times) and quick ratio (2.96 times) reflected good working capital management and liquidity position. Satisfactory Net Profit Margin (18.6%) shows sound profitability of company and effective managing of operations.



Gross margin TTM	34.58%	64.9%
Gross Margin 5YA	36.31%	66.55%
Operating margin TTM	21.96%	24.05%
Operating margin 5YA	24.14%	24.67%
Pretax margin TTM	25.45%	27.45%
Pretax margin 5YA	28.82%	28.31%
Net Profit margin TTM	18.64%	20.37%
Net Profit margin 5YA	21.22%	20.93%

Figure 11:Historical financials

Overall Infosys is very sound ethical company with good financials. Their corporate strategy revolves around client, employee and technologies. They understand no company can grow with customer focus and support, updated employees. Company’s financials are in sound position. YoY there is 15% growth in revenue which is very good indicator of healthy performance given by Infosys in FY’18-19. This year growth is mainly driven by Digital revenue share exceeds 25% of total of the company.

In Annual report CFO have mentioned resilient financials driven by productivity improvement as well efficient capital management which shows effective working capital management by company. Even in disruptive environment both technological and political, financial performance is very good.

Infosys always believe in creating shareholders wealth which should be prime objective of any organisation.

8.LIMITATIONS

The observations above are non-exhaustive and further detailed study with industry and domestic and international competitors can be performed to further understand the position of Infosys in the global IT market.

Additional study of W.C. finance to be conducted to draw further inferences on the funding of the working capital.

Industry can be analysed to understand competitors stand point view on Working capital analysis in detail to draw further conclusions.

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APPENDIX : PROFIT AND LOSS & BALANCE SHEET

Infosys					
Profit and Loss Account			**in Rs. Cr.**		
	Mar -19	**Mar -18**	**Mar -17**	**Mar -16**	**Mar -15**
INCOME					
Revenue From Operations [Gross]	73,107	61,941	59,289	53,983	47,300
Revenue From Operations [Net]	73,107	61,941	59,289	53,983	47,300
Total Operating Revenues	73,107	61,941	59,289	53,983	47,300
Other Income	2,852	4,019	3,062	3,006	3,337
Total Revenue	**75,959**	**65,960**	**62,351**	**56,989**	**50,637**
EXPENSES					
Operating And Direct Expenses	0	6,764	6,044	5,466	4,284
Employee Benefit Expenses	38,296	32,472	30,944	28,207	25,115
Depreciation And Amortisation Expenses	1,599	1,408	1,331	1,115	913
Other Expenses	16,137	5,408	5,094	4,601	3,939
Total Expenses	56,032	46,052	43,413	39,389	34,251
Profit/Loss Before Exceptional, ExtraOrdinary Items And Tax	**19,927**	**19,908**	**18,938**	**17,600**	**16,386**
Exceptional Items	0	0	0	0	412
Profit/Loss Before Tax	**19,927**	**19,908**	**18,938**	**17,600**	**16,798**
Tax Expenses-Continued Operations					
Current Tax	5,225	4,003	5,068	4,898	4,537
Deferred Tax	0	(250)	52	9	97
Total Tax Expenses	5,225	3,753	5,120	4,907	4,634
Profit/Loss After Tax And Before ExtraOrdinary Items	14,702	16,155	13,818	12,693	12,164
Profit/Loss From Continuing Operations	**14,702**	**16,155**	**13,818**	**12,693**	**12,164**
Profit/Loss For The Period	**14,702**	**16,155**	**13,818**	**12,693**	**12,164**

Infosys					
Balance Sheet					in Crores
	Mar 19	**Mar 18**	**Mar 17**	**Mar 16**	**Mar 15**
EQUITIES AND LIABILITIES					
SHAREHOLDER'S FUNDS					
Equity Share Capital	2,178	1,092	1,148	1,148	574
Total Share Capital	2,178	1,092	1,148	1,148	574
Reserves and Surplus	60,533	62,410	66,869	59,934	47,494
Total Reserves and Surplus	60,533	62,410	66,869	59,934	47,494
Total Shareholders Funds	**62,711**	**63,502**	**68,017**	**61,082**	**48,068**
NON-CURRENT LIABILITIES					
Deferred Tax Liabilities [Net]	541	505	0	0	0
Other Long Term Liabilities	248	208	82	62	30
Total Non-Current Liabilities	789	713	82	62	30
CURRENT LIABILITIES					
Trade Payables	1,604	738	269	623	124
Other Current Liabilities	13,321	10,488	11,167	10,529	5,546
Short Term Provisions	505	436	350	436	8,045
Total Current Liabilities	**15,430**	**11,662**	**11,786**	**11,588**	**13,715**
Total Capital And Liabilities	**78,930**	**75,877**	**79,885**	**72,732**	**61,813**
ASSETS					
NON-CURRENT ASSETS					
Tangible Assets	11,709	9,027	8,605	8,248	7,347
Intangible Assets	0	130	0	0	0
Capital Work-In-Progress	0	1,442	1,247	934	769
Fixed Assets	11,709	10,599	9,852	9,182	8,116
Non-Current Investments	12,062	11,993	15,334	11,076	6,108
Deferred Tax Assets [Net]	1,114	1,128	346	405	433
Long Term Loans And Advances	16	19	5	5	4,378
Other Non-Current Assets	7,806	8,048	6,666	5,967	26
Total Non-Current Assets	**32,707**	**31,787**	**32,203**	**26,635**	**19,061**
CURRENT ASSETS					
Current Investments	6,077	5,906	9,643	2	749
Trade Receivables	13,370	12,151	10,960	9,798	8,627
Cash And Cash Equivalents	15,551	16,770	19,153	29,176	27,722
Short Term Loans And Advances	1,048	393	310	355	3,231
OtherCurrentAssets	10,177	8,870	7,616	6,766	2,423
Total Current Assets	**46,223**	**44,090**	**47,682**	**46,097**	**42,752**
Total Assets	**78,930**	**75,877**	**79,885**	**72,732**	**61,813**

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infosys

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