A REPORT

ON

MACROECONOMIC ANALYSIS OF IT SECTOR

BY

NAME	ID NO.
ABHINAV SINGH	2018B3A30876P
ANUSHKA PANDA	2018A8PS0401G
ARUN SONI	2018B3A30839P
AYUSHI JAIN	2018B3A30971P
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AT

WILLIAM O'NEIL INDIA

WILLIAM O'NEIL, BENGALURU

A PRACTICE SCHOOL – I STATION

OF

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI

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PREPARED IN PARTIAL FULFILMENT OF THE
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Title of The Project: Macroeconomic Analysis of IT Sector

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Project Areas: Sectoral Study, Equity Research

Abstract

This project's primary goal is to analyse the IT sector's financial and economic performance in India. This report has taken a sample of the top large cap and some growth companies as a data set, and based the overview of the IT sector on the performance and plans of those companies. The first thing that an investor should look at when picking stocks is the industry that shows promise. That is why this report serves as a significant first step in analysing the company for further investments. This report wishes to achieve a holistic view of the IT sector and shows what headwinds and tailwinds the sector is facing, with a special focus on the effects of the Coronavirus pandemic on the economies. The report will also try to predict what the near future holds for these companies, and will seek to help the reader in having a better understanding about how the IT sector functions on a fundamental level.

Contents

1. Introduction

This report will consist of a brief introduction of the Macroeconomic Overview of the IT sector, followed by a detailed analysis of the same and how it has affected individual companies in various ways. Finally we will give a brief about our progress on the overall project and some concluding remarks.

The report that we are about to present will consist of the briefing of the work that we, as a group, have done on the 'Macro-Analysis of the IT sector' and then describe our progress while working on the same.

India's IT industry contributed around 7.7 per cent to country's GDP (Gross Domestic Product) and is expected to contribute 10 per cent to India's GDP by 2025. Total number of employees grew to 1.02 million cumulatively for four Indian IT majors (including TCS, Infosys, Wipro, HCL Tech) as on December 31, 2019. Indian IT industry employed 205,000 new hires and had 884,000 digitally skilled talent in 2019. Overall, we can get an idea from this about the potential of the IT sector in growing the economy.

IT companies in general, have performed very well in the past few years. Most IT companies provide services to sectors like the banking and financial sector, the travel and hospitality sector, the insurance sector etc. and many operate on a global level which gives them a good diversified market. IT companies are not very capital intensive; thus, their debts are usually quite low. And in this ever-increasing digital world, the companies have grown rapidly. All this has provided the companies to make a firm foundation that is hard to shake.

This brings us to the major topic of our discussion: the Covid-19 world crisis. Economies have taken a bad hit amidst this world pandemic, and sectors like the travel sector are struggling to survive. None the less, this crisis hasn't had as bad of a blow on the IT industry as one expected. Many companies have signed large deals even in the last quarter, which proves that the demand for IT hasn't reduced as much. And rightfully so, their clients are more in need of automation and digitization than ever before. Thus, the companies have taken billions of dollars' worth of orders executable in the next year. The sector which has been hit the hardest is the travel and hospitality sector, and this has also stood as a resistance towards the IT sector's growth. Many IT companies have major clients in the travel industry which have now been lost due to the pandemic. We have tried to describe in the next section the impact of the travel segment on IT industry.

We will also describe the various measures taken by the companies to cope up with this pandemic, and what their plans for the future are.

2. Analysis

2.1 Overview

The final quarter of 2019-20 began on a steady note for the largest Indian information technology companies but lockdowns in various countries to contain the novel coronavirus outbreak in the last two weeks of March weighed down earnings.

An overview can be perceived from how the top 3 Indian IT players performed.

2.1.1 While the quarter was disrupted by the Covid-19 outbreak, top line was aided by deal wins in the past quarters. Tata Consultancy Services Ltd. and Infosys Ltd. saw a sequential growth in revenue in rupee terms. Wipro Ltd., which has had a relatively subdued year, saw a marginal decline.

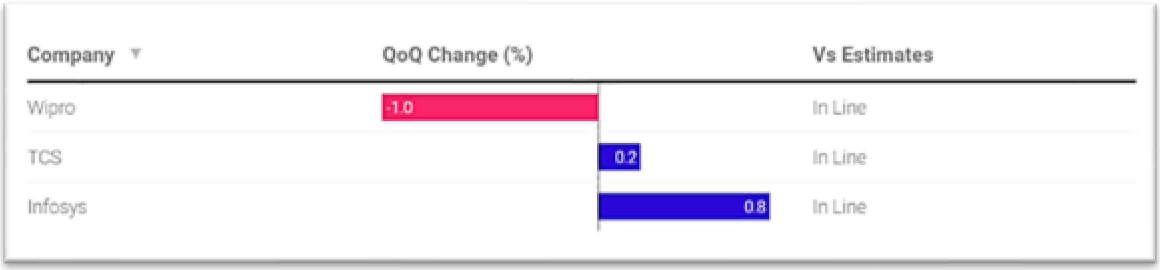


Fig.1 Revenue Comparison of Top Three IT Firms Performance in January- March 2020

2.1.2 Earnings before interest and taxes margins remained largely stable. TCS saw a marginal expansion, while Infosys and Wipro saw contraction because of higher expenses from transition to work from home.

Fig.2 IT Firms' Operating Margins Performance in January-March 2020

2.1.3 Wipro and TCS saw a sharp sequential decline in the sector's largest business vertical of financial services as lockdowns weighed on sentiment.

Company ▲	Revenue Contribution (%)	Growth (%)
Infosys	31	0.1
TCS	30	-1.8
Wipro	30	-2.3

Fig.3 How Biggest Vertical Fared Performance in January-March 2020

2.1.4 The three Indian software services providers reported a mixed performance in North America, their largest business geography.

Company	Revenue Contribution (%)	Growth (%) ▼
TCS	51	0.6
Infosys	62	-0.9
Wipro	59	-1.2

Fig. 4 How IT Firms Fared in Largest Market Revenue performance in North America in January-March 2020

2.2 Key Points affecting IT sector

Covid-19 Pandemic

Operations of the company are adversely affected by the disability of sections of the global workforce due to exposure to the pandemic, reduced productivity due to employee stress and impact on emotional well-being while under local lockdowns or quarantines, the inability to provide work from home to certain employees for logistical or security or contractual reasons, and the inability of suppliers. These have impacted revenue growth and have led to potential customer claims for non-compliance with service delivery obligations.

Demand for the company's services are adversely affected not only in pandemic-impacted industry segments – such as travel and hospitality, but also across other segments as a result of a sharp slowdown in the major economies of the world. In the short and medium term this is affecting the company's earnings.

Global Political and Economic Situation

Corporate technology spending has been closely linked to the growth of GDP.

Political disruptions or volatile economic conditions such as trade tensions, post-Brexit uncertainty, Covid-19 pandemic impacts on the global economy, US presidential elections, etc. have adversely affected that outlook resulting in lower expenditure that has restricted opportunities for revenue growth.

In the coming year, the impact of the Covid-19 pandemic could also make global mobility restrictions complicated leading to immobility of skilled employees.

Business Model and Strategy Challenges

Rapidly evolving technologies are changing patterns of technology consumption, creating new classes of buyers within each company, giving rise to completely new business models and, therefore, new types of competitors. This leads to increased demands on the agility of the company to keep pace with the changing expectations of the clients. Failure to cope can result in market share loss and an impact on business growth.

Hiring and Litigation

In view of the sector's scale and geographical spread, litigation risks can arise from trade disputes, perceived breaches of intellectual property rights and related matters related to employment. This risk is inherent in doing business across different countries, and is proportionate to the risk faced by similarly placed industry players. Litigation attracts negative media attention and poses reputation risk.

Complex and changing global regulations

An IT company must comply with complex and changing laws and regulations across multiple jurisdictions, covering areas such as employment, taxation, Health Safety and Environment (HSE), Data Privacy, etc. The rapid pace of changes in the regulatory environment also requires a quick understanding of their implications and adaptation to business operations. Failure to comply could result in penalties, damage to reputation and criminal prosecution.

Data Protection Laws, Cyber Security & Intellectual Property (IP) Violation

Companies have to keep in mind these while transforming business framework to work-from-home.

2.3 A Closer look at Individual companies

2.3.1 Infosys

FY20 was an exceptional year for Infosys with double-digit growth across all sectors. Infosys grew at 9.8% in constant currency in FY20. Although it reported -0.8% QoQ growth in constant currency in Q4. Operating margin was 21.3% in FY20 and 21.1% in Q4. Infosys signed deals worth $9 bn in FY20 and worth $1.65 bn in Q4. Some of these were in the last two weeks of the quarter. Digital revenue saw the biggest jump and grew by 38% making it 42% of the total Revenue.

	Quarter ended			YoY Growth	
	Mar 31, 2020	Dec 31, 2019	Mar 31, 2019	Reported	CC
Financial services	31.3	31.5	31.6	3.5	5.7
Retail	15.5	15.3	15.9	2.6	4.2
Communication	13.0	13.0	13.5	(0.1)	3.1
Energy, Utilities, Resources & Services	12.9	12.8	12.7	5.4	7.3
Manufacturing	10.1	10.3	10.0	5.8	7.4
Hi Tech	7.9	7.6	7.7	7.3	7.7
Life Sciences	6.4	6.7	6.0	11.7	11.9
Others	2.9	2.8	2.6	18.4	21.1
Total	**100.0**	**100.0**	**100.0**	**4.5**	**6.4**

Source: BSE filing by Infosys

1.Financial Service Segment: Financial Services segment is seeing the impact from interest rate decline across the world, which have severely compressed the net interest margin. The banking sector is also expected to experience an increase in loan losses in the near future, which will have an impact on its profits. Insurance may also see an increase in pressure due to higher claims.

2.Retail Segment: Retail segment has been hit hard especially non-grocery, apparel, lifestyle and fashion, logistics, etc.

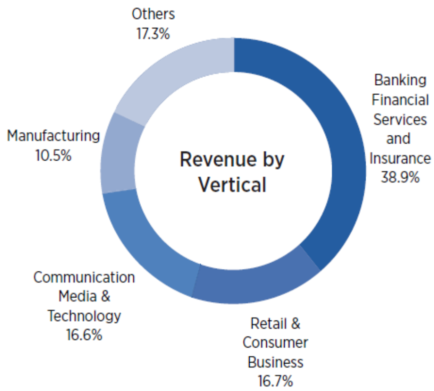
3. Energy, Utility, Resources, and Services: With low energy prices and demand and supply chain issues in other sub-segments, the performance is expected to be weak in the near term.

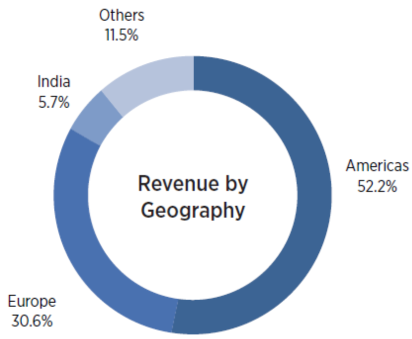
4.Manufacturing Segment: COVID-19 spread exacerbated by supply chain disruptions has resulted in a widespread closure of production facilities across the globe. Stoppage and probably reduced travel in the near future will also affect the aerospace industry in terms of order book and deliveries.

2.3.2 Tata Consultancy Services

TCS' revenue grew 7.2% in FY 2020, compared to 19.0% in the prior year. Much of the year on year deceleration is on account of the lesser currency benefit received in FY 2020 and volatility in demand in financial and retail services. Pandemic completely reversed the positive momentum. Q4 revenue grew at 3% in constant currency YoY, operating margin at 25.1% YoY and net margins at 20.2% YoY. Revenue grew at 7.1% in constant currency in FY20, EBIT margin (operating margin) was at 24.6% while the net margin was at 20.6%. Long-term customer relationships are healthy and workforce is motivated.

The economic impact of the pandemic ripple is felt across all TCS' industry verticals and major markets. Location-Independent Agile Model, Secure-Border Workspace and Machine-First Delivery Model are to define company's delivery model. Hiring is kept on a complete freeze as of now, however the company will honour all the offers made in the past. Job security will be given more preference over salary cuts.





1.Banking, Financial Service and Insurance: BFSI revenue declined this quarter by 1.3%. Much of the revenue leakage was due to the supply side impact arising out of delays in or inability to activate remote access for some of the offshore teams due to regulatory concerns. Banking operations, their security processes, their regulatory and compliance processes are quite complex and involved, and getting a sign off on the new operating model has been time-consuming. Large banking operations business has been the most impacted.

2. Retail Sector: Retail grew 4.2% despite a sharp hit in the Travel, Transportation and Hospitality sub-vertical. Life Sciences and Healthcare continue to grow strongly clocking 16.2%.

3. Communication, Media and Technology: Communications and Media business continues to do well, growing 9.3%, while Technology and Services grew 3.5%. Media had a significant downgrade impact due to Covid-19 pandemic.

4. Manufacturing and Life Sciences: Manufacturing grew 7% in Q4 and Life Sciences and Healthcare continue to grow strongly clocking 16.2%.

2.3.3 Wipro

All figures based on IFRS	Q4'20	YoY Growth	QoQ Growth
Revenue	157,110	4.70%	1.56%
Operating Income	25,367	-5.95%	-4.10%
Net Income, GAAP	23,260	-6.33%	-5.28%
EBITDA Margin (%)	19.85	-6.50%	-3.41%
Market Capitalization	1,123,817	-26.90%	-19.97%
EPS	4.09	-1.21%	-5.10%

Adjusted IT Services Segment Revenue decreased 1.0% sequentially and increased 0.4% YoY. As lockdowns weighed on sentiment, IT Services Operating Margin was disturbed, was at 17.6% down by 0.8% QoQ and down 0.4% on YoY basis. Net income for the quarter was ₹23.2 billion. EPS was ₹4.1 and decreased by 1.2% YoY.

1. BFSI units which got affected in last quarter of FY20 which resulted in contraction of its distribution by 1% (YoY) merely due to decline in interest rate all over the world.

2. Communications unit was hit after lockdowns weighed on sentiments.

3. Retail segment has been hit hard especially non-grocery, apparel, lifestyle and fashion, logistics, etc.

2.3.4 Tech Mahindra

Revenue for the quarter stood at Rs 9,490 crore, a growth of 6.7 per cent YoY, though it fell 1.7 percent sequentially. In dollar terms, revenues stood at $1,294.6 million, a decline of 3.3 per cent QoQ.

EBIT (earnings before interest and tax) margins dropped 220 basis points sequentially to 10%, the lowest in 10 quarters. A large part of the margin fall (150 basis points of 220) is attributed to provisioning towards forthcoming expenses, losses and deal transition costs. The management does not anticipate the provisions to reoccur. Also, the company should recover deal transition costs as projects ramp-up.

BPO services especially voice BPO, which cannot be quickly transitioned to work from home due to infrastructure and regulatory constraints. Due to data sensitivity, permissions from clients for work from home solutions took longer. And thus hit the revenues. It is seeing pockets of delays in discretionary spends. This can weigh on revenues in the near term.

2.3.5 NIIT Tech

- Global IT solutions company with clients comprising majorly of 3 segments: Banking and Financial Services (about 15% of the revenue), Insurance (31%) and travel & hospitality (27%) as of Q4 FY20.
- BFS remained flat, insurance grew quite a bit sequentially and travel contracted owing to the Covid-19 crisis.
- They signed 3 large deals in Q4, after already signing 4 large deals in Q3 which shows positive signs for the company.

- Despite their major business coming from America, and America being the worst hit country by the pandemic, the clients have not withdrawn much with exception to the airline sector.
- Due to the travel shrinkage, the company might see a decline in growth in Q1 FY21, but the company has about $468 million executable orders in the next year, which will bring back the good growth starting from Q2.
- Rigorous cost cut measures have been taken to keep up the margins, which remained high (18%) even in Q4

2.3.6 HCL Technologies

HCL Technologies posted better-than-expected financial results for the quarter ended March 2020. The IT firm reported a 22.80 per cent year-on-year (YoY) and a 3.80 per cent quarter-on-quarter (QoQ) growth in net profit at Rs 3,154 crore.

3 Months Ending	12/31/2018	03/31/2019	06/30/2019	09/30/2019	12/31/2019	03/31/2020
Revenue	1,58,691.3	1,60,500.5	1,64,367.9	1,74,967.1	1,81,139.1	1,84,335.0
Net Income Avail to Common, GAAP	26,238.3	25,669.7	22,232.4	26,481.6	30,375.0	31,266.1

Revenue of the company increased 16.30 per cent YoY and 2.50 per cent QoQ to Rs 18,590 in Q4FY20. The company proposed a final dividend of Rs 2 per share on double the number of shares post 1:1 bonus issue. Employee productivity has gone up by 16-17% in the last month due to the nationwide lockdown.

The impact on this quarter was very minimal, it is less than $10 million.

Stressed Verticals, especially transportation and manufacturing may adversely impact the current quarter revenue. "Pockets of good demand in weak verticals" and "weak demand in strong verticals" in HCL Tech's mixed portfolio mix.

Have signed 14 transformational deals in Q4 of FY20.

2.3.7 L&T Infotech

Company's Total Operating Revenue is Rs. 8907.20 Cr. and Equity Capital is Rs. 17.40 Cr (+).

Amount in USD million

	Q4FY19	Q3FY20	Q4FY20	QoQ Growth	YoY Growth
Revenue (USD million)	353.8	394.4	409.9	3.9%	15.9%
Revenue Constant Currency				4.7%	17.4%

Amount in INR million

	Q4FY19	Q3FY20	Q4FY20	QoQ Growth	YoY Growth
Revenue	24,860	28,111	30,119	7.1%	21.2%
EBITDA Margin	19.2%	18.8%	19.2%		
EBIT Margin	17.7%	16.2%	16.7%		
Revenue Related Foreign Exchange Gains/(loss)	334	351	398		
Net Income	3,785	3,767	4,275	13.5%	12.9%
Net Income Margin	15.2%	13.4%	14.2%		
Billed DSO	70	78	77		
DSO (Including unbilled)	103	110	106		

L&T Infotech (LTI) is India's sixth largest IT Services provider in terms of export revenue. It is primarily focused on the verticals of Banking & Financial Services (BFS; 26%), Insurance (21%), and Energy & Utilities (E&U; 13%), which together form ~60% of total revenue. The YoY growth for BFSI, Hi-Tech & CPG, and Retail & Pharma are 22 percent, 33 percent and 34.5 percent, respectively.

It clocked 21 percent YoY revenue growth with net profit up by 36.2 percent in FY19. In FY18, LTI's had a 16.7 percent YoY growth while the net profits went up by 14.6 percent. While revenues of the top eight IT firms in India fell 1.7% sequentially in the quarter Q4, LTI posted a 3.9% QoQ growth in revenues in dollars and 4.7% QoQ growth in revenue in CC. This impressive performance of LTI can be attributed to the company securing a record eight deals in Q4.

The total revenue grew at 29.3 percent YoY FY19 to Rs 94,458 million. The total contribution made by the BFSI sector to LTI's growth trajectory is 22 percent, and the company sees a huge potential in this segment going forward. L&T Infotech's growth is supported by large deals in Insurance & Manufacturing sector and recovery from large accounts. L&T Infotech signed a record eight deals in Q4 and six deals in Q3, which attribute to its impressive performance despite the COVID-19 situation.

2.3.8 Mindtree

Mindtree
A Larsen & Toubro Group Company

Mindtree, which was recently acquired by Larsen and Toubro, reported a flat growth in revenue and profit for March quarter due to unfavourable cross-currency movements. The mid-tier information technology (IT) services company is expected to take a hit on most of its verticals due to disruptions caused by Covid-19. Amongst the verticals for the quarter, Hi-tech media grew 5.2% and other verticals declined. As per analysis, a higher impact is expected on the company's Travel and Hospitality vertical, which constitutes over 16 per cent of total revenues, due to travel bans and restrictions.

- For the quarter, their revenue is $278.4 million, with 1.9% growth in constant currency and 1.2% in dollar terms. For the full year, their revenue is $1.1 billion, with a growth of 9.4% in constant currency and 8.7% in dollar terms.
- The company closed Q4 and the full year with record deal closures and margin expansion. They signed contracts worth $393 million in Q4 and $1.2 billion for the full year, thus underlying their strong transformational capabilities.
- In Q4FY20, Mindtree logged a net profit of Rs206.2cr growing by 3.9% YoY and 4.7% QoQ. Meanwhile, revenue stood at Rs2,050.5cr up by 11.5% YoY and 4.3% QoQ. Operating profit (EBITDA) stood at Rs351.2cr increasing by 25.3% YoY and 14.7% QoQ. EBITDA and net profit margin were at 17.1% and 21.0% respectively in the latest quarter.
- During Q4 result announcement, the company's board has also recommended a Final Dividend of 100% (Rs10 per equity share of the face value of Rs10/- each) for FY20.
- As on March 31, their cash flow hedges are at USD 979 million, and on balance sheet hedges are at USD 138.7 million.

2.3.9 Hexaware

- Hexaware Technologies Limited is a provider of information technology (IT), business process outsourcing (BPO) and consulting services. The Company is engaged in computer programming, consultancy and related activities, IT consulting, software development and business process management.
- The company's operating income during the quarter grew 3.7% on a quarter-on-quarter (QoQ) basis. The expenses were up by 1.5% QoQ during the same period. The company also has the highest revenue growth (22.1%) on YoY basis among its competitors
- The company's operating profit increased by 15.2% QoQ during the quarter. Consequently, operating profit margins witnessed a growth and stood at 17.5% in 4QFY20 as against 15.7% in 3QFY19.
- Speaking at an investor call, R Srikrishna said that in the medium term, they expected a positive impact from this situation as the demand for Cloud based solutions and automation increases.
- He also added “This crisis has helped cement customer relationships and built trust and credibility. Once this pass, we will be in a solid position to gain market share.”
- On being asked What is the scope for Indian technology companies, he replied “the initial requirement will be for laptops, and network and security equipment. But that's short-lived, and once that is done, there is going to be an enormous

amount of work required. The spending will shift to higher-value work where Indian software companies can benefit.”

- The company is working really hard to fight the crisis. The company had transitioned to a work from home model almost a week before the 21-day national lockdown was announced. 99% of its IT services and 75% (by revenue) of the BPO operations were currently being run from home, with no impact on client delivery.

2.3.10 CYIENT

Consolidated revenue at $149.2Mn; de-growth of 3.8% QoQ and de-growth of 9.7% YoY. Services revenue at $132.3Mn; de-growth of 5.6% QoQ (5.4% in CC) and degrowth 10.0% YoY. DLM (Design Led Manufacturing) revenue at $17Mn; growth of 12.4% QoQ; de-growth of 7.1% YoY. Consolidated normalized EBIT stood at 8.4%; down 118 bps QoQ.

Business Units	Services			Group			Geography	
	$ Mn	QoQ	YoY	$ Mn	QoQ	YoY	NAM	$83.1 Mn
A&D	45.3	0.5%	-9.0%	56.4	4.7%	-6.9%		-5.7% QoQ
Comms	33.7	*-0.7% cc* -1.4%	2.7%	33.7	-2.0%	1.1%		-6.9% YoY
E&U	15.3	-24.7%	-20.3%	17.9	-20.5%	-18.3%	EMEA	$38.4 Mn
Transportation	15.0	-3.4%	-16.6%	15.2	-3.5%	-15.9%		-1.3% QoQ
Portfolio	14.2	-3.0%	-10.1%	14.2	-3.0%	-10.6%		-5.9% YoY
SIA	5.4	-22.3%	-35.1%	5.4	-22.3%	-35.1%	APAC (incl. India)	$27.7 Mn
MT&H	3.3	-1.6%	11.8%	6.3	-10.9%	12.7%		-1.4% QoQ
Total	**132.3**	**-5.6%**	**-10.0%**	**149.2**	**-3.8%**	**-9.7%**		-21.1% YoY
CC Growth		*-5.4%*	*-8.8%*		*-3.7%*	*-8.6%*		

Commentary of Boeing and Airbus show that there will at least 50% less deliverables in the immediate future and the can only brace for its impact.

The communications industry is expected to net rise for the whole year with the introduction of 5G and investments in broadband etc. Immediate impact will be there due field related work but overall it should be positive.

Energy and utilities are expected to have a medium impact. While mining is doing well, major challenges faced are due to pricing in the oil and gas industry. With many utilities being innvated and digitized, the company is confident for profit in this industry.

Transport, as in aerospace, we also see a medium impact initially due to social distancing but with time major innovations and automations will attract spending.

Geospatial business will see a hit in the short term due to the company's lack of access to raw data but as the geological tagging and proximity will become more important this industry will see good growth in the coming years.

Medical and healthcare are stated to be counter intuitive. Though major spending is seen in COVID related activities, non COVID related activities such as elective surgeries are close to an absolute zero. So though the company will have to see the medium-term effect, there will be greater opportunities in this sector for technology, digital, telemedicine.

In conclusion, Q1 FY21 is expected to be even lower than Q4 FY20, but going forward Q2 will see a huge rise in the EBIT margins and the financials are expected to return to normal by the end of Q3 FY21.

3. Key Takeaways from IT Sector

The following data shows the percentage growth year-on-year (YoY%) as well as quarter-on-quarter (QoQ%) for the Market Capitalization (Mkt Cap), Revenue and Net Profit (PAT) of IT sector companies in NIFTY 200.

Sr. No.	Company Name	M. Cap QoQ%	M. Cap YoY%	Revenue QoQ%	Revenue YoY %	PAT QoQ%	PAT YoY %
1	HCL Technologies Ltd.	8.00%	19.20%	3.50%	15.50%	8.60%	13.00%
2	Hexaware Technologies Ltd.	-10.60%	1.50%	3.2%	22.1%	-8.7%	35.8%
3	Info Edge (India) Ltd.	24.50%	78.90%	1.70%	19.20%	7.00%	14.90%
4	Infosys Ltd.	-7.10%	8.00%	2.00%	7.90%	10.60%	23.70%
5	Larsen & Toubro Infotech Ltd.	18.40%	4.40%	9.40%	13.70%	4.50%	0.30%
6	Mindtree Ltd.	12.60%	-5.80%	2.70%	10.00%	45.90%	3.00%
7	Mphasis Ltd.	-1.40%	-8.00%	5.50%	15.50%	7.40%	5.60%
8	Oracle Financial Services Software Ltd.	-11.20%	-26.50%	-0.20%	-2.20%	27.30%	49.30%
9	Tata Consultancy Services Ltd.	5.20%	13.90%	2.30%	6.70%	1.10%	0.30%
10	Tech Mahindra Ltd.	8.20%	4.30%	6.40%	7.90%	-0.10%	-9.00%
11	Wipro Ltd.	6.10%	-4.30%	2.30%	2.70%	-4.00%	-3.30%
	Average	**7.40%**	**9.90%**	**3.00%**	**8.10%**	**4.30%**	**6.20%**

- Third quarter for this sector has been affected by weak global macro outlook regarding growth in 2020/FY2021 and less working days. Moreover, companies have not benefited much from the corporate tax cut of Sep 2019 as they were already in low tax brackets.

- The reduction in growth was mainly due to reduced spending on IT services by Banking & Financial Services industry. Other sectors like Retail, Communication, Healthcare have contributed to the growth.
- This quarter is considered as a weak quarter in IT due to less working days. As a result, only Tech Mahindra was able to sign new deals. It can be seen from its positive revenue growth.
- L&T Infotech's growth is supported by large deals in Insurance & Manufacturing sector and recovery from large accounts.
- TCS is largely led by operational efficiencies and INR depreciation.
- HCL Technology has grown in both IBM products (acquired in July 2019) as well as services segment.

3.1 Future Outlook

- The pandemic has introduced an unprecedented level of uncertainty in an already unstable global economy.
- TCS expects to deal with near-term uncertainty and believes that the peak negative impact from the Covid-19 situation would be comparable to the peak impact of the Global Financial Crisis of 2008.
- Biggest difference in the impact of this pandemic compared to GFC is that the GFC started in the financial services world and then slowly moved into the real economy. Here, the impact has been across most sectors very rapidly. The hope is that the recovery will also be equally widespread given the nature of the impact that has happened.
- Q1 FY21 is expected to show impact on the timelines of deals already sealed.
- There might be SLA slippage in fixed price contracts.
- Services which relate to some more project-level work, which is discretionary, which will probably be slower
- Near-term bottom in industry verticals is expected to arise due to both supply and demand issues.
- Post-Covid world is anticipated with whole business continuity planning getting strengthened.
- Biggest Technology shift is going to be in areas like collaboration tools and digital technologies. The acceleration in migration to cloud will be even faster. The whole area of intelligence analytics, and adoption of technologies for self-

healing of the infrastructure that will provide you that resiliency will also be accelerated.

- In terms of movement, there is a movement from the smaller or the less capable vendors to larger or the more capable vendors. IT giants like Infosys, TCS are expected to benefit from this movement.
- Execution-cum-advice-led services would be valuable in the future in the consulting field.
- Digitalisation, migration to cloud and approach to building resilience in terms of self-healing and self-learning, would be the key.
- There might be a market with enterprises having an urgency to accelerate tech. As things come back to the new normal the spend on digital will continue to increase.
- Hiring is kept on a complete freeze as of now, however the company will honour all the offers made in the past. Job security will be given more preference over salary cuts.

4. Project Progress Analysis

The students have worked individually on their respective assigned companies. They have read the financial statements of previous years and transcripts of the last four quarters and drawn some conclusions based on them. They have elaborated on how the world pandemic has affected their companies and also its effect on the IT sector as a whole.

Based on the individual work of all the students, we have compiled this report on the Macro Analysis of the IT sector, keeping in mind the factors that affect a large number of companies. Factors like the decline of the airline industry, which has affected many IT companies, can be an example of what we have used to draw our conclusions.

The sources which have been used to obtain information includes financial statements, annual reports, transcripts and investor presentations available on the investor relations page of each company. Also, we have read analyst reviews on their perspective of the future of the economy and the IT sector. We have also used Bloomberg Terminal. In addition to this, we have also used MarketSmith India to aid us in understanding the financials better.

After presenting this Macro analysis, the students will shift their prime focus on studying about the company on a micro level in detail. This will include past earnings trends, management analysis, investment returns, market trends, growth estimates etc. All this will provide the students with a holistic view of the company. All this will be presented in the final reports by individual students in the last week of June.

Conclusion

The IT sector has looked strong even in these harsh economic conditions. The firms which focus on cloud computing, automation, digitization etc. have especially been resistant to the Covid 19 crisis. But such a giant upset in the economy is bound to affect the firms to some degree. Thus we might see a slowdown in growth in Q1 of FY21, if not a small negative growth. The firms have restricted the hiring to an on need basis, to cut down extra costs. The revenue have taken a hit in those divisions of the company which are connected to badly hit sectors like travel, manufacturing etc.

The earnings and margins for most IT firms have been robust. The problem which their stock is facing is the market trend. Even if a company is performing exceptionally well on paper, if the market sentiment is pessimistic, their stock might not do as well.

One key thing to notice is that the market is going up, even when the economy is going down. This might give rise to a bull trap, which means that the markets can fall again. People might be placing their bets on the market based on the Q4 results of the companies, which had, for the most part, not seen the full impact of the coronavirus. It is possible that as the Q1 results of FY21 arrive in July, the markets will fall. The unemployment has been about 22% in the recent days, which is very high as compared to the predicted 14%. This is another reason why this could be true, thus making investments in stocks a bit risky for now.

But veteran investors like Rakesh Jhunjhunwala believe that a full-fledged bull market has started, since the markets usually lead the economy by 4-5 months.

Compared to other capital intensive sectors, like manufacturing, IT sector shows much better promise and is thus more attractive to retail investors right now. Big firms like TCS can be good for a long term investment, and even growth companies like NIIT Tech can give good results in short term.

The future plans and prospects of the IT sector looks strong, especially in a developing economy like India. Many foreign investors have poured large amounts of money into Indian firms, showing promise. Moreover, the shift of tech firms from China to India due to recent events also shows an optimistic future, especially in the upcoming years.

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