**COMPARISON OF THE IMPACT OF COVID-19 PANDEMIC ON SMALL AND LARGE IT FIRMS IN INDIA**

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***ABSTRACT***

The Covid-19 pandemic had put every economy across the world out of the order and India is not an exception. IT industry has been one of the booming industries with the record growth rates and new advancements every year. Here, this paper evaluates how the pandemic has affected the IT industry specifically in the areas viz 1) Profit after Tax 2) No of employees 3) Level of software exports by clearly differentiating the industry into Small and Large to analyse the nature of impact on both the sections. Data of a sample of 1409 companies has been taken from Prowess IQ data base by Centre for Monitoring Indian Economy (CMIE). The findings indicate that both large and small IT firms incurred substantial disruptions, however the magnitude of challenges differed significantly between two groups.

The results of the study will provide valuable insights to policy makers, industrialists etc.to formulate strategies for recovery for both the large and small firms after a sudden disruption in the economy. Also, the research shows the adaptability and resilience of the sector just after an unprecedented global challenge.

Keywords: Covid-19, IT Industry, Profit after Tax, Employees, Software Exports, Large and Small firms, Recovery.

# INDRODUCTION

The IT industry in India stood at US$177 in the year 2019 and it was assumed that it will grow up to US$ 350 by the year 2025. The year-on-year growth of the industry was near to 6.00% every year. (IBEF, 2019) There were a large number of policies from the government side such as National policy on software products,2019 aimed to boost the growth and to redefine this sector to gain fruitful results for the economy at all. This paper tries to evaluate the impact of the pandemic on the sector by primarily focus on:

1. How the pandemic affected the Profit of the industry?
2. How the industry behaved by the number of employees owing to the pandemic?
3. What happened to the export of Software services due to the pandemic?

The data for the same has been extracted from Prowess IQ software by Centre for Monitoring Indian Economy (CMIE) and this paper specifically emphasis to focus on the impact of pandemic over these dimensions after classifying the industry into two; viz-a-viz, set of large companies and the set of small companies and the parameter used to classify is the ‘Size’ which is available as a pre-defined function in the database which is defined as the 3 Year Average of revenue and total assets. The target being to evaluate and differentiate the impact of a sudden disruption in an economy in these two sections as both differs themselves in multiple domains such as number of employees, total market capitalization, governmental regulations, tax differences, availability of credits etc.

# LITERATURE REVIEW

There has been multiple studies based on the factors affecting profitability of firms, employment generation and sustainability of employment and also the services exports. Camelia Burja (2011) through regression analysis figured out the factors which affects the profitability of firms emphasising on resource utilization, financial leverage, efficiency of capital, efficiency of inventories. Hence analysis of the impact of pandemic or any kind of a sudden economic disruption on these factors will give an idea regarding the impact of the same on the whole industry. Nirmala Velan and Manzoor Hasan Malik (2019) studied the Software sector exports for the past and analysed the role of Government policies for the booming of the same. Also, they focused on the dynamics of Software exports and Gross Domestic Product of the country.

Richard Heeks and Brian Nicholson (2004) studied the software exports success factors of the countries India, Ireland and Israel. From a sole disruption point of view, Veeramani Lingam and Anam (2021) studied the impact of the Covid-19 pandemic on the export of services and the study opines that compared to other economies, India’s service sector exports were less affected by the pandemic. Tejindar Singh (2020) studied the impact of the pandemic on IT sector in India and it’s replication in the Nifty index. Yanquing Lai, George Saridakis, Robert Blackburn and Stewart Johnstone (2016) evaluate the impact of a financial crisis on the operational activity and job experience of the employees in large and small firms. P.W Daniels (2000) focused on the countywide differences that cause variation in export of services and figured out factors such as regulatory and infrastructural terms aiding this. Study by Simon Commander (2011) evaluates the effects of institutional and policy environment on IT investments.

Since these studies extend from pervasive topics and are based on different localities of research, these are inconclusive for my research area. Also, this signifies my study on the topic which should point straight towards meaningful inferences. That it, my study consolidates how a disruption in an economy such as a pandemic affects Small and Large IT Firms differently after understanding on the domains of profitability, employment level and exports separately by understanding the methodologies and inferences received from these studies, hence it will stand unique.

# CLASSIFICATION AND ITS SIGNIFICANCE

The Prowess Database inculcates both Software sector and ITES (Information Technology Enabled Services) in the IT Industry and the samples that have chosen has a strength of 1409 companies. Based on the size of the companies, they are divided into two. Size is a measure that inculcates both assets and revenue of the company based on the logic that, to quote from the Prowess dictionary, “Interestingly, the problems in sales and assets as measures of size offset each other and thus a combination of the two is a good measure of the size of a company. While sales are vulnerable to business cycles, assets are not. While assets understate the importance of the services sector, sales do not. While assets have a valuation problem, sales are the least controversial. Sales and assets, therefore are complimentary measures in many ways in determining the size of a company.” (Prowess IQ dictionary)

The companies having the size less than 100 crore INR are classified as ‘Small firms’ and those above 100 crores INR are classified as ‘Large Firms’. Based on this there were 312 ‘Large firms’ and 1097 ‘Small firms’.

Figure 1:Classification of Firms

The classification has been done in order to evaluate the difference in the impact on the firms in accordance with their size also to examine the pace of recovery. Since both the sections differ themselves in their number of employees, governmental benefits and restrictions, availability of credits, accessibility to distinct opportunities it is expected to show the same in the search area as well. Hence the study can be effective in both Macro and Micro level policy formulations accordingly.

# IMPACT OF PANDEMIC ON THE PROFIT LEVEL

In order to evaluate the impact over profit, Profit after tax has been considered.

Figure : Profits of Firms over the years

(Note: Profit of small firms are measured on right axis)

This is because it shows the actual amount the company is making in that operating year. Hence it also shows the efficiency in meeting a healthy growth margin. Also Profit after tax do not consider the debt obligations of a company. For the sake of analysis average Profit after tax of each company in a year-on-year basis is taken. After analysing the data, it can easily be noted a huge difference on the impact on profit between the two set of firms. Data shows that though there is no negative fall of profit during the period 2020, (which shows the effect of pandemic just after its emergence in the year 2019), there is a fall in the relative profit level compared to previous years.

It is clear from the graphs that the average profit didn’t go negative during the pandemic phase. This is during a time when almost all the industries across different sectors were facing negative growth. There are many reasons for this to happen. Since profit is a function of several variables, the factors causing this trend can easily be identified. These variables include management of effective resources (Camelia, 2011), Global and local demand, National Vision and Strategy, competition, clustering & collaboration, human capital, technological upgradation and finance etc. During the pandemic, overall consumption of electronic media has increased resulting to the increased exposure to internet and Information Technology Enabled Services. Be it in the academia, government services, purchasing pattern, getting insights on the pandemic and regular updates from the authorities, monetary transactions, video conferencing and other modes of communications and in all other fields this increment in the consumption pattern can be figured out. Also, the policies such as National Policy on Software Products also ace this. To reduce the costs of the firms many firms also followed layoffs and other measures. The transition to Work from Home also paved the way to the decrement in costs of the firms. There has been considerable drop in both the placement rates and the packages during the period hence it was available for the forms to get access to wage-less technical labourers. Spur in global demand for India IT services during his period (as the firms abroad may not have to incur expenses that it would have incurred if offline) also results in the increase in the profit after tax. This is clearly reflected in the graph.

Figure 3: percentage change of profit over the years

But, in order to clearly differentiate the impact on these two sets of companies, I have used Year-on-year Marginal Average Growth rate as the tool. The change in the profit level in each year has been noted and expressed as percentage. This makes convenient to analyse the impact and differentiate. It can be noted that after considerable fluctuations in the marginal average growth rate, it shows an upward moving trend during the pandemic. For the large firms, it has increased from 5.734% to 7.845% during the period and for small firms, the Marginal Average Growth of Profit increased from 7.844% to 41.49%. one of the reasons for this large variation is due to the distribution of the data in the case of small firms as there is only the variation of 1.37 Crore though the change in percentage is huge.

It can easily be noted that compared to large firms, small firms have reflected a higher growth rate during the pandemic. This shows that it is harder for large firms to reduce the costs and also raise the level of revenue during a time of disruption in the economy. For example, many listed firms such as TCS, Wipro have taken an employee centric policy by guaranteeing policies such as No job cuts and ensuring full wage. Also, these firms also incur huge expenses for their high valued fixed capital assets from which they were experiencing Economies of Scale in the Pre-Pandemic period. Also, it is harder for them to reduce the wages they provide for the hired employees due to the social image conservation. In addition to this, mandatory payments such as Corporate Social Responsibility (CSR) also makes them unable to reduce their costs to the desired level. Management of these firms will be such that there exists a systematic hierarchy and this also makes them difficult to reduce the costs.

Against these, the small firms many of which are informal will find it easy to cut their costs to the desired level. many of them followed layoffs, focused on Work from Home culture, cut all the unnecessary expenditures to reduce their costs. Due to the small size of annual turnover and low investments, they are also free from mandatory payments such as Corporate Social Responsibility (CSR). Also, the benefits from the governmental sides in the form of Startup Promotions by making easy accessibility credits also helps these firms.

# IMPACT ON THE NUMBER OF EMPLOYEES

It is easy to draw insights from the graphs regarding the difference of how the pandemic affected both the sections of firms. Though it is common that the pandemic has resulted in the job cuts as evident from the graph in both sections( from 81 to 65 in small firms and from 41799 to 41602 average workers in larger firms) there is a difference in the extent of this decrement. This can clearly be explained using the graph which describes the percentage annual change in the number of employees.

Figure 4: Average number of Employees in Small firms

After considerable amount of fluctuations in the previous years, the change in employment has fallen in the year 2020. But for large firms, it is -0.4713% and for small firms it is -19.7531%.

Layoffs actually reflects trade-off between a firm’s moral obligations toward employees and it’s legal economic obligations toward other stakeholders such as shareholders. There exist multiple studies that deal with the lay-off pattern of both large firms and Small and middle-sized firms. But, the major limitations to draw insight from these studies ais that, those studies are based on the Western firms primarily concentrating on Europe. As a result, we can plot a major difference on their findings with the data of the Indian firms. Their findings indicate that due to the social proximity that the employers have to their employees I small firms, they will prefer their moral obligation that economic and legal obligations hence there is less likelihood for lay-offs compared to their Larger counterparts. (Lefebvre, 2023)

Figure 5: Percentage change in number of employees

Figure 6: Average number of employees in Large Firms

but here it shows that, these small firms value economic obligation than social obligation. Also, since the total number of employees between these two sets of firms differs very much. That is, for a company having 1000 employees will work almost with the same effectiveness with 950 employees. This is not true for a company with 100 employees laying off 50 of them.

# IMPACTS ON THE SERVICE EXPORT

India’s software exports are dominated by service. India always had a dominant position in the global software supply market. there are multiple studies which analyse this how India could attain this role. 1) High external demand 2) National vision and Strategies 3) International linkages like via diaspora 4) Clustering and collaboration from the firms 5) Technically efficient, low-cost, English speaking labour force with accessibility to capital and infrastructure etc are some among them. Even during pandemic India’s total software exports has increased to 148.3 bn USD registering a growth of 2.1 % in 2020.

Table : Average Exports of Large Firms

Figure : Average Exports of Large Firms

|  |  |
| --- | --- |
| YEARS | EXPORTS (in ₹ Crores) |
| 2016 | 667.982 |
| 2017 | 718.851 |
| 2018 | 838.08 |
| 2019 | 991.342 |
| 2020 | 907.411 |
| 2021 | 1116.69 |
| 2022 | 1113.7 |

Table : Average Exports of Small Firms

|  |  |
| --- | --- |
| YEARS | EXPORTS (in ₹ Crores) |
| 2016 | 31.208 |
| 2017 | 33.77 |
| 2018 | 63.764 |
| 2019 | 129.602 |
| 2020 | 85.703 |
| 2021 | 113.79 |
| 2022 | 118.875 |

Though it is clear from the graphs that the Services exported has fallen for both sections of the firms. But coming to the change in growth of exports, it differs. It can be seen that average growth of exports was 103.253% for small firms in the year 2019. But it has fallen negative to -33.8722%. but for the large firms the growth of exports has fallen to -8.464 % from 18.2873% of the previous year 2019. But due to the demand in the industry especially from abroad both the sections of the firms could revive back easily within a financial year and this is clearly reflected in the graph.

Figure 8: Average Exports of Small Firms

Figure 9: Percentage change in Exports

# CONCLUSIONS

In all the three analyses, the volatility of small firms can clearly be depicted. It is clear that due to a sudden disruption in the economy such as by a pandemic, the profit growth of small firms can largely be affected and it is easier for them to engage in lay-offs to survive in the market. Also, similar trend can be seen in the case of services exports as well. Still overall view provides the knowledge that, among all the industries in all the sectors, IT sector could revive easily after a disruption in the economy. In the case of revival, small firms are at a much higher faster pace compared to their larger counter parts.

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