Chapter-III
An Overview of Information Technology Industry
CHAPTER III

AN OVERVIEW OF INDIAN INFORMATION TECHNOLOGY INDUSTRY

INTRODUCTION

The Indian Information Technology industry has been one of the great success stories of modern India. An industry that did not exist three decades ago is now the toast of the nation and the envy of the world. It is arguably the most global of any Indian industry and has created international benchmarks for quality, proving to the world and to ourselves that Indian companies can compete globally and win on quality. It has also demonstrated what can be achieved by unleashing the power of middle class, first generation entrepreneurship in India.

The overwhelming majority of companies in this sector were started by entrepreneurs with modest backgrounds and very limited access to capital. In many ways, this industry has helped create the brand of “New India” and served as an inspiration for everyone else. The Indian information technology (IT) industry has played a major role in placing India on the international map. The industry is mainly governed by IT software and facilities, for instance System Integration, Software experiments, Custom Application Development and Maintenance (CADM), network services and IT Solutions.

The I.T. industry in India comprises software industry, Information Technology Enabled Services (ITES), and Business Process Outsourcing (BPO) industry. Information technology essentially refers to the digital processing, storage and communication of information of all kinds. It can
potentially be used in every sector of the economy. Indian I.T. industry has built up valuable brand equity for itself in the global markets. According to Nasscom’s findings, Indian IT-BPO industry registered by 12 per cent during the Fiscal year 2009 and attained aggregate returns of US$ 71.6 billion. Out of the derived revenue US$ 59.6 billion was solely earned by the software and services division. Moreover, the industry witnessed an increase of around US$ 7 million in 2008-09 i.e. US$ 47.3 billion against US$ 40.9 billion accrued in 2008-09.

Evolution of the Information Technology Industry

The Information Technology industry in India had modest beginnings with a few Indian entrepreneurs setting up IT services companies and select MNCs such as GE, Texas Instruments and American Express, setting up their captive centres in India. Cost arbitrage through abundant talent pool available in India was the prime driver for off shoring to India. The perceived success of the first few captives led other multinational corporations to contemplate entering India to set up their back offices and product development centres. India-based third-party players started offering similar services to capitalize on the opportunity. The Y2K phenomenon and the “dot com bust” gave a strong push to outsourcing of technology services to India.

Over a period of time, this industry has won the attention of private equity investors leading to a large number of Indian entrepreneurs establishing up IT-BPO centres. While cost considerations used to be the primary driver earlier, performance, quality, productivity and increasingly transformation have emerged as key reasons for outsourcing work to India. In recent years, this
industry has witnessed the trend of India based companies actively participating in Merger and Acquisition deals to gain access to diverse talent pool and to expand their global footprint.

**Contribution to Economic Development**

The Information Technology industry's contribution to the country's GDP has been steadily soaring from a share of 1.2 per cent in the year 1998 to 5.8 per cent in 2009; it has contributed to foreign exchange reserves of the country by increasing exports by almost 36 per cent and its direct employment has grown at a compounded annual growth rate of 26 per cent in the last decade, making it the largest employer in the organized private sector in the country. In addition, it also indicates that the I.T. industry has significantly contributed through socially relevant products/services and community initiatives in human resource development to education, employability, health and encouraging women empowerment. The industry has been the trigger for many "firsts" and has contributed not only to unleashing the hitherto untapped entrepreneurial potential of the middle class Indian but also taking Indian excellence to the global market.
Chart No. 3.2.1 Contribution of I.T. Industry to Economic Development

- Share in GDP
- Foreign Exchange Reserves
- Direct Employment

Indirect Contribution

- Indirect Employment
- I.T. Outsourcing
- Driving the Growth of Other Sectors
- Growth of Venture Capital
- Growth of Entrepreneurship
- Improving the Quality Level
- Good Corporate Governance
- Strong tax Contributions
- Impact of Rural areas
- Empowering Human Assets
- Wealth Creation
- Skill Development
Direct Contribution to the Indian Economy

The current and evolving role of I.T. industry in India’s economy is well established. The sector is proving to be the major growth pole within the services sector, which in turn drives several economic indicators of growth in the country. A few key indicators such as GDP, foreign exchange and employment are discussed in subsequent sections.

(i) Share in National GDP

The Indian I.T. sector’s contribution to the country’s GDP has been steadily increasing over the last few years. As a proportion of national GDP, the I.T. sector has grown from 1.2 per cent in 1997 - 98 to 5.8 per cent in 2008 - 09.

<table>
<thead>
<tr>
<th>Year</th>
<th>Growth of Indian I.T. Industry (in US$ Billion)</th>
<th>Share in National GDP (Per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997 – 98</td>
<td>4.8</td>
<td>1.2</td>
</tr>
<tr>
<td>1998 – 99</td>
<td>6.0</td>
<td>1.5</td>
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<tr>
<td>1999 – 00</td>
<td>8.2</td>
<td>1.9</td>
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<tr>
<td>2000 – 01</td>
<td>12.1</td>
<td>2.7</td>
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<tr>
<td>2001 – 02</td>
<td>13.4</td>
<td>2.9</td>
</tr>
<tr>
<td>2002 – 03</td>
<td>16.1</td>
<td>3.2</td>
</tr>
<tr>
<td>2003 – 04</td>
<td>21.6</td>
<td>3.5</td>
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<tr>
<td>2004 – 05</td>
<td>28.4</td>
<td>4.1</td>
</tr>
<tr>
<td>2005 – 06</td>
<td>36.3</td>
<td>4.8</td>
</tr>
<tr>
<td>2006 – 07</td>
<td>47.8</td>
<td>5.4</td>
</tr>
<tr>
<td>2007 - 08</td>
<td>64.2</td>
<td>5.5</td>
</tr>
<tr>
<td>2008 – 09</td>
<td>60.5</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Source: Nasscom
(i) **Foreign Exchange Earnings**

If export earnings of the industry are considered an indicator of contribution to foreign exchange reserves of the country, the I.T. industry has clocked an impressive growth of 40.6 per cent in 2009. Export earnings for 2009 stood at approximately US$ 48.0 billion as compared to US$ 18.3 billion in 2005.
(ii) Employment generation

The direct employment in the Information Technology Industry is expected to be 2.25 million and has been growing at a compounded annual growth rate of 26 per cent in the last decade as shown in table 3.1.2. This makes it the largest employer in the organized private sector in the country. As per data from Ministry of Labour and Employment, I.T. services account for almost 12 per cent of the employment in organized private sector.

Table 3.1.2
Direct Employment in I.T. Industry

<table>
<thead>
<tr>
<th>Period</th>
<th>Direct Employment in Indian I.T. Industry (in Million)</th>
</tr>
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<tbody>
<tr>
<td>1998 – 99</td>
<td>0.23</td>
</tr>
<tr>
<td>1999 – 00</td>
<td>0.28</td>
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<tr>
<td>2000 – 01</td>
<td>0.43</td>
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<tr>
<td>2001 – 02</td>
<td>0.52</td>
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<tr>
<td>2002 – 03</td>
<td>0.67</td>
</tr>
<tr>
<td>2003 – 04</td>
<td>0.83</td>
</tr>
<tr>
<td>2004 – 05</td>
<td>1.05</td>
</tr>
<tr>
<td>2005 – 06</td>
<td>1.29</td>
</tr>
<tr>
<td>2006 – 07</td>
<td>1.63</td>
</tr>
<tr>
<td>2007 – 08</td>
<td>2.00</td>
</tr>
<tr>
<td>2008 – 09</td>
<td>2.25</td>
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</table>

Source: Nasscom
Indirect Impact on the Economic Scenario

The growth of the Indian I.T. industry and its resultant contribution to the economic growth of the country has also had wider impact like indirect employment generation, driving the growth of other sectors, fuelling the rise and growth of Private Equity (PE)/Venture Capital (VC) funding, spurring the growth of first generation entrepreneurs, improving the product/service quality level, practicing good corporate governance and boosting the image of India in the global market.
(i) **Indirect Employment Generation**

For every one job created in the I.T. sector, four additional jobs are created in the rest of the economy. Therefore, the indirect employment generated by the sector can be considered to be almost 6.5 million. These include direct service providers to the I.T. industry like catering, transport and housekeeping, security, etc. Among the various consumption categories, spending on housing/construction, food items, clothing, outdoor eating/holidays induces maximum employment.

It needs to be noted that the increased indirect employment opportunities are not restricted to the educated/skilled professionals. Past studies by NASSCOM have shown that nearly 75 per cent of the workforce employed by the major service providers to I.T. is SSC/HSC or less educated. Thus, the I.T. sector is providing employment to low skilled/educated workers as well.
(ii) **I.T. Outsourcing In India**

As per NASSCOM, I.T. exports in business process outsourcing (BPO) services attained revenues of US$ 48 billion in FY 2008-09 and accounted for more than 77 per cent of the entire software and services income. Over the years India has been the most favorable outsourcing hub for firms on a lookout to offshore their I.T. operations. The factors behind India being a preferred destination are its reasonably priced labor, favorable business ambience and availability of expert workforce.

(iii) **Driving the growth of other sectors of the economy**

The growth of the I.T. sector is having a considerable multiplier effect on output in the Indian economy. It has been established that every Re. 1 spent by the I.T. sector (on domestically sourced goods and services) translates into a total output of about Rs. 2 in the economy – driven by derived demand from firm-level expenses (capital expenditure as well as operating expenses) and high level of consumption spending by professionals employed in this sector.

(iv) **Fuelling the growth of Venture Capital funding activity**

Shift in the Indian Government’s economic policy towards liberalization led to the genesis of venture capital operations in India. The worldwide dot com boom and growth in the IT sector kick-started Venture Capital activity in India which led to the creation of first generation of India-centric Venture Capital funds like Chrys Capital, Infinity, Baring Pvt. Equity Partners, etc. They were followed by larger private equity players like CDC Capital, HSBC Pvt. Equity, etc.
(v) **Spurring the growth of first generation entrepreneurs**

Traditionally, corporate India consisted of either large family owned businesses or multinational companies till the advent of the I.T. industry, and it was rare to see a first generation entrepreneur. The shift of focus from physical capital to intellectual capital and the advent of the private equity/venture capital funding enabled a large number of first generation entrepreneurs with no wealth to try their hand at starting new enterprises. There are hundreds of success stories across the country.

(vi) **Improving the product/service quality level**

Indian I.T. companies have evolved from being preferred low-cost solution providers to becoming high value partners for companies across the world. The BPO sector too is maturing rapidly which is apparent through the volume and complexity of work being outsourced to India.

In line with this evolution, companies are now redefining/setting global benchmarks in quality in order to differentiate and attain business excellence.

(vii) **Front Runner in practicing Good Corporate Governance**

Some of the Indian I.T. companies have played a role in institutionalising good corporate governance practices by creating a positive pressure within the industry as well in other industries to adopt global standards. In a majority of the cases, the drivers behind companies adopting increased disclosures have been the need to gain overseas customer credibility, access global talent pool and undertake global mergers and acquisitions activity.
(viii) **Strong tax contributions**

Information Technology companies in India and employees on the payroll of these companies make a significant contribution to the tax collection of the Government of India. The industry contributes almost Rs. 15,000 crore in direct taxes. Though the industry receives benefits in terms of lower effective tax rates and tax holidays for select units, the overall direct tax contribution by the industry to the exchequer outweighs the tax benefits received by the Software Technology Park units, which are estimated at Rs. 10,000 crores.

(ix) **Impact on Rural areas**

The Information Technology industry is exploring the advantages of operating centres in rural areas of India and some players have started their units in rural India. Rural BPOs, which have been operational for less than three years, have together generated a total of US$ 10 million in revenue in 2009. These centres together employ 5,000 people in rural areas. Rural BPO presents a win-win situation for both stakeholders – rural BPO companies and the local population. While people in villages get jobs and a better life, companies can gain hugely in the long-term in terms of cost savings.

(x) **Empowering the diverse human assets**

Being one of the largest organised private sector employers, the I.T. industry has shared its growth with millions of constituents of its workforce. The industry has not only leveraged the vast and diverse talent pool of our nation but has also focused on training and development aspects to further improve the skill-sets and employability of the 2.2 million people directly
associated with it. This industry has not only provided an answer to the unemployment concerns, but is also working towards bridging the gender divide and improving the state of the differently-abled by making all sections of the society a part of its expanding community.

(xi) Enabling wealth creation and asset building

The industry has played an important role not only in wealth creation for individuals but has also helped in supporting and sustaining extended households. The NASSCOM-Evalueserve survey shows that 77 per cent of employees support their extended families while 56 per cent are the primary bread earners of their households. In addition, the I.T. industry has played a pivotal role in asset building.

The NASSCOM-Evalueserve survey shows that 62 per cent of the IT-BPO employees own an automobile, 84 per cent spend a portion towards housing (7 per cent invest in real estate) and 42 per cent employees are able to save more than 10 per cent of their salary; around 22 per cent of employees own all the three assets.

(xii) Enhancing skill development

I.T. industry is investing in employee training and aiding in the expansion of talent pool. Indian I.T. companies spend nearly Rs. 6,450 crore on training their employees. Also, the employee training expenses increases from 45 per cent in 2001–02 to 125 per cent in 2008–09. Further, 72 per cent of the females entering engineering in 2008 opted for I.T. engineering Females in rural areas are increasingly enrolling for computer education courses initiated
by various I.T. companies, which are helping them earn a livelihood by taking up jobs as teachers in primary schools or other computer training centres.

**National Association of Software and Services Company (NASSCOM)**

NASSCOM acts as an advisor, consultant and coordinating body for the I.T. industry in India and has played a key role in enabling the government in India to develop industry friendly policies. NASSCOM was set up in 1988 to facilitate business and trade in software and services and to encourage advancement of research in software technology. It is a not-for-profit organization, registered under the Indian Societies Act, 1860. NASSCOM has been proactive in pushing this cause for ensuring that the Indian Information Security environment benchmarks with the best across the globe.

**Information Technology Act, 2000**

The legal enactment which governs the process and dissemination of information digitally in India is the Information Technology Act, 2000. The Act along with its Rules legalizes the acceptance of electronic records and digital signatures providing a legal backbone to e-commerce.

**Government Initiatives**

The Foreign Trade Policy 2004 - 2009 permits import of all kinds of computers in India without any licenses. In order to promote domestic investment, foreign direct investment, transfer of technology/process know-how, technical collaboration, joint venture, etc. in India and export I.T. software products and services from India to the global market, both Government of India and State Governments in India have been offering a
series of policy packages including tax breaks, import duty concessions, etc. under various schemes which include the following:

- Export Oriented Units (EOUs) Scheme was basically to boost exports by creating additional production capacity.

- Electronics Hardware Technology Parks (EHTPs) complexes can be set up by the Central Government, State Government, Public or Private Sector Undertakings or any combination thereof, duly approved.

- Software Technology Parks (STPs) have been set up by the Ministry of Information Technology, Government of India and the International Technology Park in a joint project with the State Government.

- Special Economic Zone (SEZ) Schemes are being set up to enable hassle free manufacturing and trading for export purposes.

- Sales from Domestic Tariff Area (DTA) to SEZs are being treated as physical export. This entitles domestic suppliers to Drawback/ DEPB benefits, CST exemption and Service Tax exemption.

- Certain exemptions like Income Tax exemption on export profits are available to SEZ Units for 5 years, 50 per cent for next 2 years, and 50 per cent of ploughed back profits for 3 years thereafter are available for units in these designated areas/zones.

- Export Promotion Capital Goods (EPCG) Scheme allows import of capital goods for pre-production, production and postproduction (including CKD/SKD thereof) at 5 per cent customs duty subject to export obligations.
**Strengths at a Glance**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Strengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great history in software development</td>
<td>Reverse brain drain</td>
</tr>
<tr>
<td>English Language proficiency</td>
<td>Existing long term relationships</td>
</tr>
<tr>
<td>Government Support and policies</td>
<td>Creation of global brands</td>
</tr>
<tr>
<td>Cost advantage</td>
<td>BPO &amp; Call center offerings</td>
</tr>
<tr>
<td>Strong tertiary education</td>
<td>Expansion of existing relationships</td>
</tr>
<tr>
<td>Process quality focus</td>
<td>Chinese domestic &amp; export market</td>
</tr>
<tr>
<td>Skilled workforce</td>
<td>Leverage relationships in West</td>
</tr>
<tr>
<td>Expertise in new technologies</td>
<td>to access overseas markets</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>Domestic-market growth</td>
</tr>
<tr>
<td>Reasonable technical innovations</td>
<td></td>
</tr>
</tbody>
</table>

Having analysed I.T. industry, it is pertinent to give an overview of financial performance of the select companies.

1. **CMC Ltd.**

CMC Ltd. was started in the year 1975. It has been operating in the capital market for the past 40 years. The average market capitalisation of the company stands at Rs. 950 crores. The total assets of the company is Rs. 256 crores. The gross profit and net profit performance are 10 per cent and 6 per cent respectively on an average. The DPS is 70 per cent on an average. The average turnover of the company is Rs. 786 crores.
2. **GTL Ltd.**

GTL Ltd. was actually started in the year 1987. The corporate age of the company is 23 years. The company has been successfully functioning in the corporate arena with an average market capitalisation of 1200 crores. The size of average total assets is Rs. 1610 crores. The gross profit and net profit are standing at 30 per cent and 12 per cent respectively on an average. The DPS is 38 per cent on an average. The average turnover of the company is Rs. 795 crores.

3. **Financial Technologies Ltd.**

Financial Technologies Ltd. is a company started 23 years ago with its headquarters in Chennai. The average market capitalisation of the company is Rs. 3520 crores. The average value of the total assets is Rs. 640 crores. The average gross profit and net profit are 44 per cent and 28 per cent respectively. The average DPS is 270 per cent. The average turnover of the company is Rs. 92 crores.

4. **HCL Infosys Ltd.**

HCL Infosys Ltd. is one of the star performers in the capital market. It has been surviving the corporate sphere for the past 24 years. The average market capitalisation and the average total assets are at Rs. 1876 crores and Rs. 786 crores respectively. The Gross profit and Net profit logged on an average 6 per cent and 4 per cent respectively. The average DPS paid for all these years is 15 per cent. The total turnover of the company on an average is Rs. 5556 crores.
5. **HCL Technologies Ltd.**

HCL Technologies Ltd. is one of the top performers in I.T. sector. The company is of 20 years old. The average market capitalisation of the company is Rs. 12546 crores and the total assets of the company is Rs. 2883 crores on an average. The gross profit and net profit on an average work out to 34 per cent and 29 per cent. The DPS is on an average 27 per cent. The size of average turnover is Rs. 2534 crores.

6. **Hexaware Technologies Ltd.**

Hexaware Technologies Ltd. is another company running successfully on a sound corporate track for the past 20 years. The market capitalisation of the company is Rs. 1210 crores and the total assets of the company is Rs. 474 crores on an average. The average gross profit and net profit are 27 per cent and 17 per cent respectively. The average DPS is 46 per cent. The size of average sales turnover is Rs. 341 crores.

7. **ICSA India Ltd.**

ICSA India Ltd. is one of the companies operating successfully for the past 21 years with an average market capitalisation of Rs. 418 crores, average total assets of Rs. 235 crores and gross profit and net profit of 20 per cent and 13 per cent respectively. The average DPS of the company is 28 per cent. The average sales turnover of the company is Rs. 277 crores.

8. **Infosys Technologies Ltd.**

Infosys Technologies Ltd. is one of the flagship companies in I.T. sector. The corporate age of the company is 20 years. The average market capitalisation of the company is whopping Rs. 62182 crores. The size of
average total assets is Rs. 7849 crores. The company has been earning a gross profit of 36 per cent and net profit of 28 per cent on an average. The DPS on an average works out to 750 per cent. The average turnover of the company is Rs. 9492 crores.

9. Infotec Enterprises Ltd.

This company was started 20 years back. Its current market capitalisation is Rs. 684 crores on an average. The size of the total asset is Rs. 309 crores on an average. The gross profit and net profit are 28 per cent and 16 per cent on an average basis. The average DPS is 20 per cent. The average turnover of the company is Rs. 257 crores.

10. KPIT Cummins Infosys Ltd.

KPIT Cummins Infosys Ltd. is of 21 years old with an average market capitalisation of Rs. 384 crores and an average total assets of 185 crores and average gross profit and net profit of 16 per cent and 10 per cent respectively. The average DPS is 26 per cent. The average sales turnover is Rs. 266 crores.

11. Mastek Ltd.

Mastek Ltd. is one of the early birds in the I.T. sector. Its age in the corporate world is 29 years. The average market capitalisation is at Rs. 648 crores. The average total asset is Rs. 205 crores. As regards gross profit and net profit, they are 18 per cent and 27 per cent respectively on an average basis. The DPS is 126 per cent on an average. The size of average sales turnover is Rs. 334 crores.
12. Moser Baer India Ltd.

Moser Baer India Ltd. has been functioning for the past 28 years with an average market capitalisation of Rs. 2181 crores. The average total asset is Rs. 3396 crores. The gross profit of the company is 32 per cent and the net profit is at 9 per cent on an average. The size of average DPS is 15 per cent. The average sales stand at Rs. 1530 crores.

13. Mphasis Ltd.

Mphasis Ltd. is of two decades old company. The average market capitalisation is at Rs. 4291 crores. The average total asset of the company is valued at Rs. 945 crores. The company has been booking a gross profit of 26 per cent and a net profit of 22 per cent on the average. The averaged DPS of the company is 33 per cent. The company logs on an average sale of Rs. 1095 crores.

14. Oracle Financial Services Software Ltd.

Oracle Financial Services Software Ltd. is one of the oldest companies in the I.T. field. The average market capitalisation of the company is Rs. 6700 crores and averaged total asset is standing at Rs. 1684 crores. The average gross profit and net profit are 32 per cent and 26 per cent respectively. The average DPS is at 43 per cent. The averaged size of the turnover is Rs. 1160 crores.

15. Polaris Software Lab Ltd.

Polaris Software Lab Ltd. was started in the year 1993. The size of market capitalisation and the total asset for the company is Rs. 1072 crores and Rs. 513 crores respectively. The gross profit of the company is 17 per cent and
the net profit of the company is at 10 per cent on an average basis. The average DPS of the company works out to 37 per cent. The size of sales turnover average is Rs. 702 crores.

16. Rolta India Ltd.

Rolta India Ltd. is of 22 years old company in the I.T. spectrum. The market capitalisation of the company and the total assets averaged Rs. 1662 crores and Rs. 1251 crores respectively. The gross profit on an average is 55 per cent and the net profit is 32 per cent on the average basis. The averaged DPS is 33 per cent. The size of its sales turnover average is Rs. 521 crores.

17. Subex Ltd.

Subex Ltd. is of two decades old company. The average market capitalisation and total assets are Rs. 558 crores and Rs. 665 crores respectively. The gross profit, net profit and DPS averaged 20 per cent, 7 per cent and 16 per cent respectively. The average sales turnover is Rs. 146 crores.

18. Tata Elxsi Ltd.

Tata Elxsi Ltd. is of 22 years old with an average market capitalisation of 439 crores and with a averaged value of total asset of Rs. 86 crores. The company has been booking a average gross profit of 19 per cent, average net profit of 13 per cent and average DPS of 53 per cent. The average sales turnover is Rs. 242.79 crores.
19. **Wipro Ltd.**

Wipro Ltd., one of the oldest corporate brands in India, but it entered the I.T. field in the year 1980. It has Rs. 50,680 crores of averaged market capitalisation. The average value of total assets of the company is Rs. 7939 crores. It has been earning an average gross profit of 25 per cent and average net profit of 20 per cent. The DPS of the company is 356 per cent and the sales turnover of the company is Rs. 10335 crores on an average basis.

Having discussed the I.T. industry in the current chapter, analysis of individual firm's market capitalisation has been made through ARIMA forecasting technique in the next chapter.