SUMMER INTERNSHIP REPORT

Financial Modelling and Valuation

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Financial Modelling and Valuation

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I would like to take this opportunity to express my sincere gratitude to my Organisation mentor (NIBM) **Dr. M Manickaraj** for giving me this great opportunity to delve into this valuation model. This has helped me to build the skill set of research as well as analytical interpretation.

I would also like to thank Institute of Management, Nirma University for giving me an opportunity to work in such a respectful organization.

Bearing in mind previous I am using this opportunity to thank our Director, Dr. M Mallikarjun and our Programme chairperson, Prof. Mahesh K.C. for the constant reminders about the importance of the internship.

Lastly, I would like to express my sincere thanks to my Faculty mentor **Dr Rajesh Jain**, for providing me with the necessary guidance regarding the important things before the start of my internship as well during the course of internship. He was a thorough support and has always been encouraging and appreciative of the work.

Executive summary

The objective of this study is to build a financial model and a valuation report in order to understand the business of Apollo Hospitals ltd as well as its peers in the industry. It helped in performing analytical interpretation to dive deep into strategic planning of Apollo Hospitals ltd. It is used to test various scenarios, calculate cost of operations, budgets for new hospitals or increase in the number of beds to allocate corporate resources efficiently.

In order to conduct a thorough research before making the assumptions for forecasting, annual reports and investor presentations were thoroughly analyzed. I projected their revenues, assets, equity and liabilities for proceeding years by understanding their growth trends of previous years as well as impact of external factors like Covid-19. The capital expenditure and debt schedules are also prepared for the same. Every assumption is backed with proper reasoning to increase the credibility of the model. To the guidance I received and hard work, I was able to project a fairly well balanced model with an expected increase in share price.

The Consolidated Revenue growth was about 17% from FY2018 to FY2019. EPS doubled in FY2019 making the company attractive for investors. Steady impprovement in Return on Capital Employed through efficient use of capital. ROCE, including investment for new hospitals, stood at 12% for FY2019. The Solvency Ratios are well above the danger limit, indicating strong financial position of the company.

Overall, a positive outlook for the company was observed. Considering future opportunities and its edge over its competitors, Apollo hospitals ltd is expected to have a strong hold in the healthcare sector and a robust all round performance will be seen in coming years.

Part A: Profile of the Organization

Organization details

Name – National Institute of Bank Management, Pune

Age – It was established by the Reserve Bank of India in 1969 (51 years), in consultation with the Government of India.

Historical landmarks –

- The year 2019 marked the golden jubilee of NIBM. NIBM celebrated 50 years of glorious performance in the field of training, teaching and research in Banking and Finance.
- In January 2015, a two day event called "Gyan Sangam" took place which was a "Retreat for Banks and Financial Institutions". It was conducted to take forward the Government's commitment to reforms in the financial sector.
- AICTE granted recognition in April, 2013 for its two year PGPBF.
- The Institute repositioned PGPBF to two year course from 2009-10 onwards.
- Introduction of one year Post-Graduate Programme in Banking and Finance (PGPBF) from the academic year 2003-2004.

Business Organisation –

National Institute of Bank Management is autonomous apex institution for research, training, education and consultancy in bank management. It plays a proactive role of "think-tank" of banking system. NIBM assists the managers in their quest to maintain a competitive edge over its peers in both national and international markets. It is governed by a Board which is the highest policy-making body. It's a 16 member governing body with Shri Shaktikanta Das, the Governor of Reserve Bank of India and also the Chairman of the NIBM Governing Board. Dr. K.L. Dhingra is the Director of NIBM.

Markets and Business scope –

- Banks are the major focus in terms of potential market. NIBM undertakes training programmes for professionals from various national and international banks.
- In context with business scope, the institute is expecting more engagement in terms of online training of bankers or consultants working in the field of risk management. Risk management seems to be the USP of NIBM and it would channel its strength to provide training for executives to function in a multi-cultural and multi-national environment.
- All the decisions related to the improvisation or scope of the banking and financial sector of the country are somewhere or the other in collaboration with NIBM. This imposes certain responsibility as well as an opportunity to constantly update its resources.
- It's a storehouse of data and information of all new and emerging issues in the banking sector.

Products/Services -:

Range – NIBM is an autonomous institution for research, training, education and consultancy in bank management.

- Its primary engagement is in regards to the Research, training and education of senior executives of banks.
- It also provides consulting support to the banking and financial sector.
- Interdisciplinary modules are built to train executives in both theoretical and practical environment. 150 training programmes are conducted on average in a year.
- The Post-Graduate Diploma in Management (Banking and Financial services) grooms new generation managers for the banking and financial services industry.

Positioning – NIBM has been positioned as the "think tank of banking system".

- It's the only Institute which is focused towards training of banking professionals.
- NIBM has also developed a credit risk model of its own which is used by many Public Sector Undertaking banks.

Distribution Structure –

- The distribution structure involves both classroom and online trainings.
- For professionals, who cannot visit the campus for specific trainings, the institute provides online courses which can be accessed from anywhere.
- Various executives visit the campus as well. They are trained via classroom sessions during their stay.
- Students who enrol for PGDM (Banking and Financial services) undergo a two year residential training through classroom teaching.

Customers -:

Customer Profiling –

- The primary customers of the services provided by NIBM are banking professionals from PSU Banks across 130 countries. Executives from Bangladesh come in high numbers to avail the training services.
- Consultants working in the field of credit risk also entail these services.
- Another profile of customers is that of the students of PGDM, a batch of 120 each year.

Segmentation of markets covered – The wider scope of Banking and financial services is divided into various arms of training and education.

- The training programmes include risk governance framework, effective branch management, advanced corporate credit analysis, financing agribusiness and MSME’s, foreign investments and borrowings etc.
- The course structure for PGDM includes financial derivatives, treasury management, computation techniques, corporate finance, integrated risk management, fixed income securities, etc.

Market and competition -:

It is the only Institute in India which provides on campus education and training to bank management aspirants and professional working in this sector. It, hence, enjoys monopoly in the market.

Company’s competitors –

Only recently, SBI has come up with an offline training set up to provide trainings to banking professionals in a similar way.

In context with the online frame, Udemy, Coursera and other online training/certification platforms provide similar training at the surface level.

Industry classification

NIBM is a training institute which operates under RBI in the Banking and Finance Industry. NIBM is also an educational institute that offers professional degree of PGDM and provides training to banking officials. Hence, it has been placed into educational training industry. India’s Corporate Training industry is segmented on the basis of following parameters which primarily include industry verticals, type of training services, industry, mode of learning, training to level of employees, open and customized training programs, learning mode and learning technologies and demand from MNCs and domestic organizations.

For NIBM in educational industry (precisely B-schools category), the industry is classified on the basis of course offered such as Full time MBA, distance MBA, MBA executive, etc. on the basis of tier such as tier 1, 2, 3,etc.

Industry structure –:

General nature of competition – Positioned as the ‘Apex’ Institution, this Institute was setup in India by the RBI itself. So naturally there is no direct competition for this Institute in its area of activities in India. It enjoys the benefits of a monopoly market mostly as it is the first Institute of its kind. The functioning of the Institute falls broadly into three categories: Education, Training and Skill Development, Research and Consultancy.

In the Education department, NIBM falls in Tier 2 among the B-schools, but its specialized Programme (PGPBF) is offered by no other recognized B-schools in the country. Thus, it might have an indirect competition from Tier 1 and Tier 2 B-schools but specifically considering its unique offerings, it has no competitors.

Similarly, in the other two departments as well, there is no major competition for this Institute. As it is directly controlled and headed by RBI, its reputation and reliability increases by many folds in areas for Training, Research, and Consultancy in the Banking and Finance industry.

Economic policy- Training & Education industry does not have any impact of economic policy. Although, Government of India’s initiative of 'skill India' project has induced private players to enter into training industry. GOI has also strived hard to boost the education sector. This has helped the institute providing higher education.

The growth story of the company

NIBM was established by the Reserve Bank of India in 1969, in consultation with the Indian Government. It was decided to be governed by an autonomous Board, headed by the Governor of RBI and was positioned as an autonomous apex organization for education, training, consultancy and research in the field of bank management. It aimed to provide thought induced leadership to banks and financial institutions.

Over the years, NIBM has sought to create and implement Programmes to assist banks in developing capabilities for meeting national priorities in the banking sector, while at the same time providing world class financial and banking services. The Institute has become a part of the long term vision of giving a new focused direction to the banking sector of India and making it a cost-effective tool for overall development of the nation.

The Institute began its educational services in 2003-04, when it introduced its PGPBF (Post-Graduate Programme in Banking and Finance. Thus, it became the first institute which started offering programmes in specialised fields like banking and finance. It was a significant and innovative development for the Institute to establish and provide periodically the banking sector, a managerial cadre for its current activities and for the future requirements. The young executives are vigorously trained in various concepts like Perspectives in Banking and Finance, Analytical Skills, Foundation, etc and are well equipped to shoulder managerial responsibilities in the industry. The first batch of 2003-04, comprising of 34 students was completely absorbed through campus placements by Banks and Financial Institutions. Dr. C Rangarajan, the then Governor of RBI, delivered the first Convocation speech and conferred gold medals to students for achieving academic excellence.

With a view to meet the expectations of the banking system, the Institute amended its PGPBF programme to two-year course from the academic year 2009-10 onwards with enhanced inputs and deeper specialization in Finance and Banking. NIBM achieved approval / recognition for its two-year PGPBF programme from All India Council of Technical Education (AICTE), in order to deepen and widen the scope of career opportunities for its students. AICTE granted the recognition to the Institute in April 2013. PGPBF was then renamed as Post-Graduate Diploma in Management (PGDM) - Banking and Financial Services.

The Post-Graduate Programme continues to focus on Banking and Finance as an integrated and mutually inclusive areas of specialization and is an additional key identity of the Institute. In all fifteen batches up to 2019 numbering 821 students have since passed out from the Post-Graduate Programme successfully and all of them are well placed in banks and financial institutions. The PGDM 2017-19 batch consisted of 88 students. Now, the organisation boasts of achieving 100% placement of its students in prestigious companies every year. The Institute celebrated its Golden Jubilee in 2019.

The company's Organisation Culture based its growth patterns, achievements and recognition, value system, adapting to changing contexts -:

Being recognized as an autonomous apex Institute, NIBM has maintained a fine balance of formal and informal approach in the development of their organisational culture. It was established by Reserve Bank of India and is governed by a Board. This Governing Board consists of many quintessential personalities from the banking sector, including the Governor of RBI who holds the position of the chairperson. Due to this factor, the structure and working of the organisation has been quite smooth and flexible since its inception.

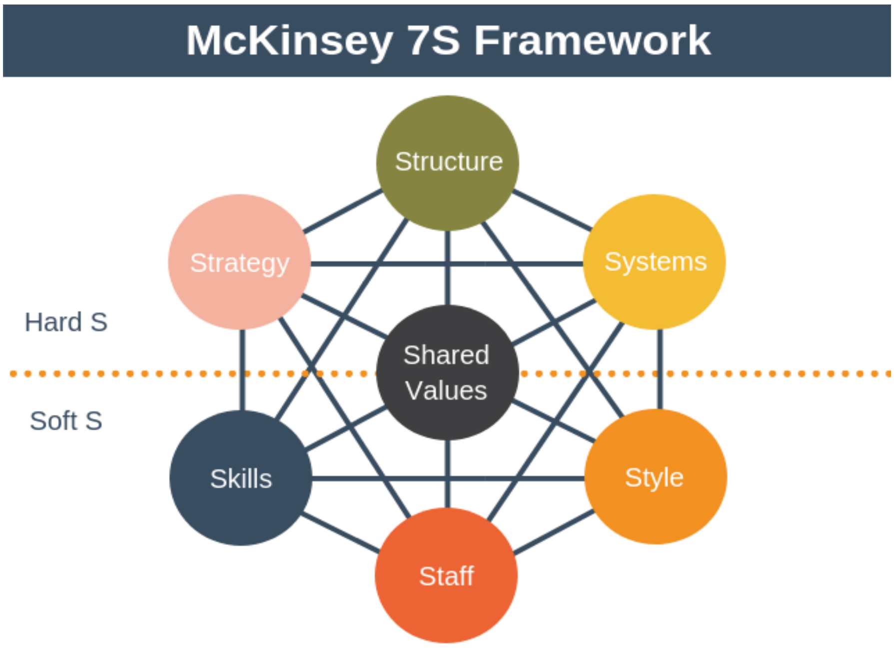
Along with flexibility and informality, the Institute has given utmost importance to professionalism and development – oriented behaviour. It also aims to imbibe ethical values in the organization through regular drills and workshops. As quoted by Shri Shaktikanta Das in his speech delivered at NIBM at Annual Convocation in 2019, "An ethical breach by one executive may defame the entire banking system." For the compliance function to be effective, it must be supported by a healthy compliance culture within the organisation.

The Institute promotes equality amongst all its stakeholders. Education and training is provided to every personnel in the organisation, may them be experts or faculties or students. This type of culture builds an opportunistic platform for the students and gives them that vital exposure which is necessary for success in the industry. Besides, the Institute conducts extra – curricular activities for all-round development of the students.

Also, the Institute has been quite liberal with the faculty staff, in the sense that they can implement their own methodology to impart knowledge. They are given opportunities to conduct various research and project, and publish their journal, paper, newsletter, etc. Thus, their skills and expertise in the area are acknowledged and rewarded by the Institution.

Analysis of the company's strategic framework -:

NIBM's Strategic Framework (7 S Framework)



- **STRATEGY:** NIBM is administered by RBI and the governor of RBI is the Chairman of its Governing Board. So they enjoy the advantage of the strategic policies coming directly from the apex bank of India. NIBM has been mandated to play a proactive role in the banking and financial system.

- **STRUCTURE:** It is headed by a Governing Board which consists of leading personalities from the banking sector. There are Member Banks and Associate Member Banks in the NIBM society. These banks have been admitted by the Governing Board for specific purposes. All the Member Banks contribute to the budget of NIBM on non-temporary basis, and ten of these banks are also represented in the Governing Board on rotational basis. On the other hand, the Associate Member Banks contribute only a specific amount to the budget of NIBM. The working of the Institute is overlooked by the Director of the Institute.

- **SYSTEMS:** The Institute has emerged as an epicentre for education, skill development, research, and advanced learning in all fields of banking and finance. Rapid technological innovations, succession planning for top management, regulatory compliance, competency enhancement, financial inclusion, etc are some areas which have emerged out as a problem for banking sector in contemporary times.

Identification and integration of these aspects in the courses and regular amendments in the curriculum have been unique features of this Institute.

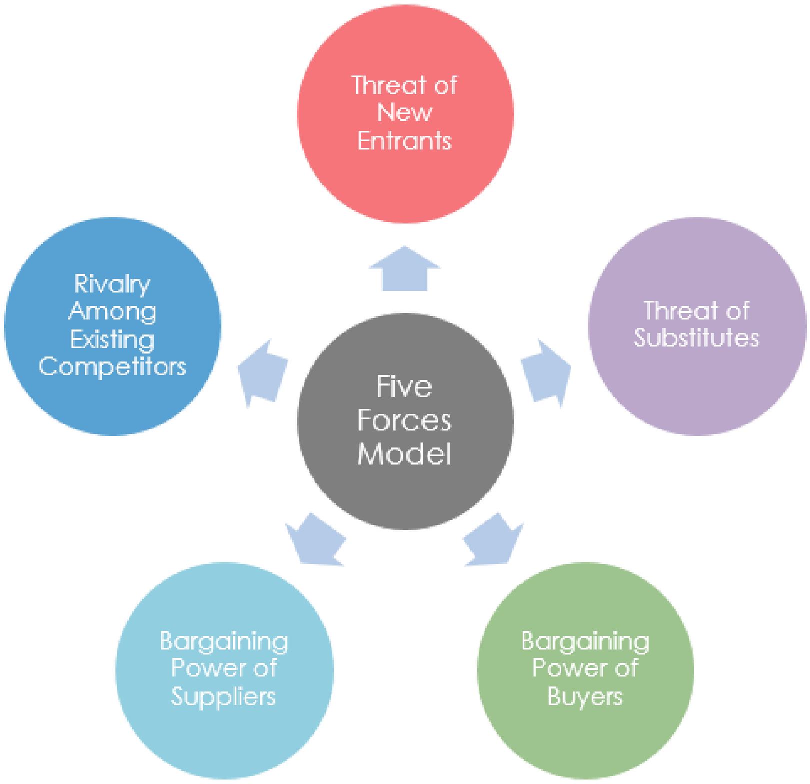
- **SHARED VALUES:** The Institute believes in the notion of Learning while working. They have programmes, not only for the graduate students, but also for the industry experts. Thus, they promote equality among experts and students, also providing healthy platform to all the classes to learn and showcase their skills. The courses offered by the Institute realize the importance of ethics and morals in the banking sector and focus on inculcating them into the future managers.

- **STYLE:** NIBM has adopted a transformation and democratic methodology which puts emphasis on use of flexible teaching styles by the faculties there. Their aim is to engage all the stakeholders in brain storming and effective administration of the Institution. This further leads to sustainable growth of the Institute. Keeping the demand and availability of technology in mind, the Institute also provides Online Certification Courses. These courses have been designed with a view to impart skill, aptitude and knowledge, thus leading to enhancement in competencies of students and officers in performing their jobs.

- **STAFF:** The faculty staff of the Institute comprises of academicians from a broad variety of disciplines such as Commerce and Business Administration, Economics, Political Science, Sociology, Agriculture Sciences, Computer Science, Mathematics, Statistics, Psychology, etc. Practising bankers add to this pool by serving the Institute for temporary periods; thus strengthening the faculty staff for this time.

- **SKILLS:** The faculties are expert in different management areas, and are categorized into seven groups with different focus, namely, Finance, Information Technology, Rural Finance and Development, Human Resource Management, Money International Banking and Finance, Strategic Planning, and Marketing and Control. Also, the staff is provided with various training programmes regularly for continuous skill enhancement.

Porter's Frame work



Competitive position in industry-

- **Competitive rivalry**: NIBM is the first training institute established and governed by Reserve Bank of India in the field of Banking and Finance. It not only provides training to professional nationally but also has its trainees from international lands. NIBM enjoys monopoly and hence there is no competitive rivalry around it. Though SBI has recently started providing such trainings, they have a long way to come before it gives strong competition to NIBM.

- **Bargaining power of suppliers**: The authorities and faculties of NIBM have maximum power in terms of setting up training fees. But since it's an NGO and their main motive is to inculcate and polish skills in banking professionals at minimum cost, they do not exercise their bargaining power. 70% of the operational costs are taken care by NIBM itself and rest 30% are covered by the banking sector. Even in case of the PDGM programme, they have all the authority and have maximum power.

- **Bargaining power of buyers**: The buyers do not possess any bargaining power. They are entitled to pay for the training as per the requirements. The same is the case with students. Students are supposed to pay the required fee and enrol themselves into the course. Since NIBM is an education and training institute, there are no fee variations for different students or trainings. The amount is fixed and not up for any discounts.

- **Threat of substitution**: There is no threat of such sort as it is governed by the RBI itself. RBI has titled the institute with the name of "think-tank" of the banking system. It is one of its kinds and even if new training institutes open up, the goodwill and quality of its trainings would still back NIBM. In terms of education, NIBM can be substituted by any of the tier 2 B schools like IMT, SIBM, SIMSR etc. Though they have a specialized curriculum towards Banking and Financial services, they lack the holistic training towards all domains like marketing, HR, Operations etc. in this matter, they do no provide flexibility for its students like other tier 2 B schools.

- **Threat of new entrants**: It is difficult for any institute to stand in competition with NIBM as RBI forms its founding pillar. Hence there is no threat of new entrants in this segment. As far as the education concentrated wing of NIBM is concerned, there is considerate threat of new entrants. There are institutes which provide PDGM programme in various domains and pose a threat to NIBM.

Problem areas the company might foresee within the next 3-5 years' time -:

- Impact due to Covid19: A lot of significance of NIBM's services is on the banking professionals coming to their campus and availing the training. The ban on air travel and also restrictions due to safety during these unprecedented times will have an impact on NIBM. There will be less number or trainees altogether.
- Due to complete fending and bending of financial sector in the year 2020, NIBM will have to completely revise its training modules and also strategies in collaboration with RBI.
- Various frameworks would have to be developed for management of concentration risks and in order to align banks with the current scenario.

Possible approaches to address these problems -:

- The possible approach towards these problems would be the increase in the access to online trainings.
- The curriculum designed for offline training could be improvised and made suitable for online training.
- Probably, instead of calling in trainees, the faculty/coach would visit different countries and provide trainings.
- Encouragement towards research and development of models to be used by banks.

Part B: RESEARCH BASED PROJECT

I. Introduction

1. Nature of the problem

The industry works on qualitative grounding which is backed by quantitative proofs. Nowadays numbers are given utmost importance to understand whether an organization is doing well or not. Especially, when we are to invest or look for expanding our businesses, the value worth of the company takes the driving seat.

The industry as a whole realizes an absence of a quantitative tool which helps in understanding the risks as well as operational inefficiencies of individual companies. This would help in making cost effective business strategies and create an attractive representation of its financial situation. Hence, the core problem is the lack of financial forecasting of revenues and other cost of operations to understand the value a company is likely to hold in the future.

2. Objective of the study

To prepare a fully linked financial model (using DCF method) and a valuation report which would represent the economic performance of a business entity.

3. Utility of the study

- The value of financial modeling is rapidly increasing.
- This tool will enable business to strategize their future plans and minimize risks in a cost-effective way.
- Financial models help in making decisions in regards to mergers and acquisitions, raising capital, planning and managing a business. Hence, I made an attempt to valuate Apollo Hospitals ltd and facilitate the following processes.

II. Methodology

1. Approach

- Initially a qualitative research is undertaken about the company which is followed by strict quantitative support with the help of financial statements.

2. Sources of data

- Primary data: Financial statements (FY15-FY19)
  Investor presentations
  Con-call recordings
- Secondary data: Top Management disclosures
  Success stories

3. Method of data collection and data analysis

- The first step is a thorough analysis of the financial statements and investor presentations of the company taken i.e. Apollo Hospitals ltd. The con call recordings are also a source of information about the growth strategies of the company in the past as well as in the present scenario.
- The numbers from previous years financial statements about the revenues and other parameters in check are hard coded in order to observe the growth trend.
- This is followed by understanding the financial statements and making assumptions to predict the future revenue structure. The capital expenditure and debt schedules are also prepared for the same.
- Revenue and cost drivers are identified to prepare a fully linked model which allows trial of various assumptions to reach an appropriate worth of the company based on its past performance and asset size.
- FCFE and sensitivity analysis is also done to back the prepared model with relevant data.
- The end goal is to analyze if the stock trading in the market is over-valued, at par or under-valued.

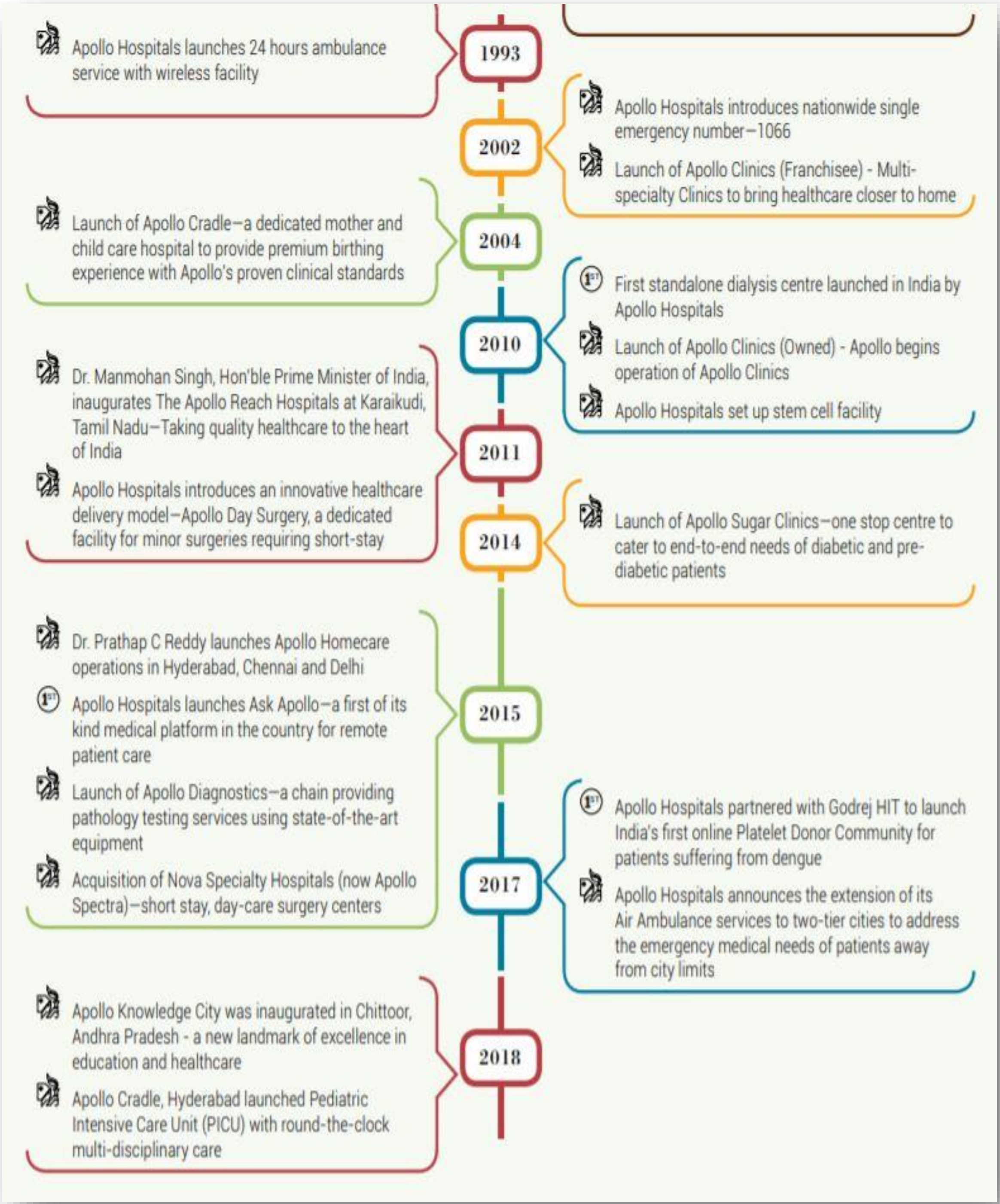
III. Presentations of Data

Valuation report on Apollo Hospitals ltd

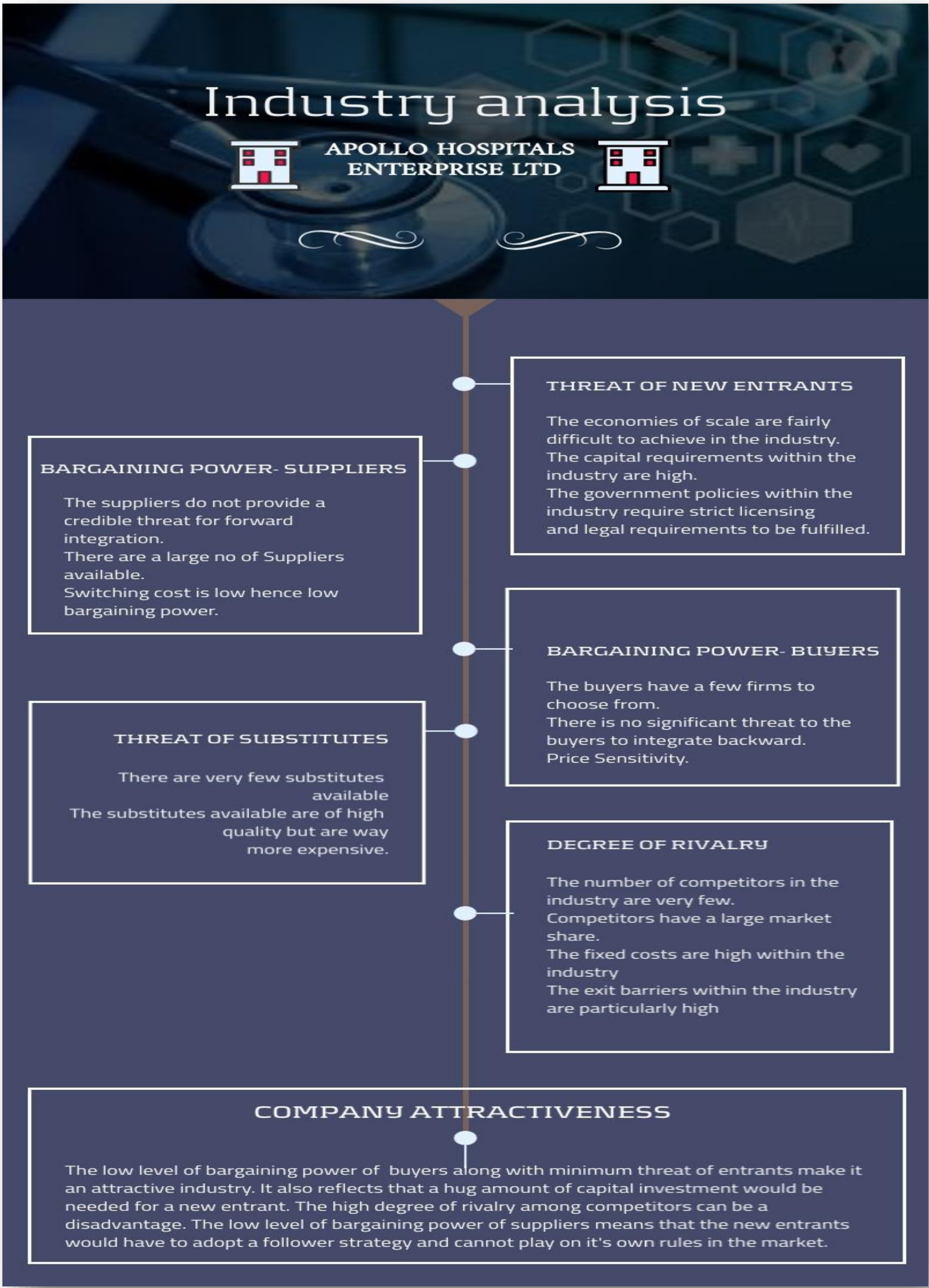
Organization Brief

- Apollo Hospitals enterprise ltd was established in 1983 and is now one of the very few listed players in the healthcare space. The business is committed to the provision of health care services and the running of standalone pharmacies.
- The tertiary care hospitals offer care in more than 50 specialties including heart sciences, oncology, psychiatry, critical care, orthopaedics, radiology, gastroenterology and transplantation. The tertiary care hospitals have more than 9,550 beds in approximately 70 states, more than 2,330 pharmacies, approximately 170 primary care and testing centres and more than 150 telemedicine systems in approximately 70 states in 10 countries.
- All facets of hospital development and operation are involved including market research, technical design, financing arrangements, staff hiring and facility management.

Journey So Far…



Industry analysis



- Demand: The Indian healthcare market is projected to hit US$ 372 billion by 2022, powered by increasing incomes, increased understanding of safety, lifestyle diseases and increased access to insurance;
- Opportunities: The hospital industry in India is projected to rise CAGR 16-17 per cent to cross Rs.8.6 trillion (US$ 132.84 billion) in FY22 of Rs.4 trillion (US$ 61.79 billion) in FY17.
- Manpower: The number of doctors in 2018 rose from 8, 27,006 in 2010, to 11, 54,686.
- Policy support: On 23 September 2018 Ayushmann Bharat, the world's largest government-funded healthcare system, was unveiled.

Investments

According to the Department for promotion of Industry and Internal trade (DPIIT), the hospital and diagnostic centres attracted Foreign Direct Investment (FDI) worth US$ 6.625 billion between 2000 and 2019.

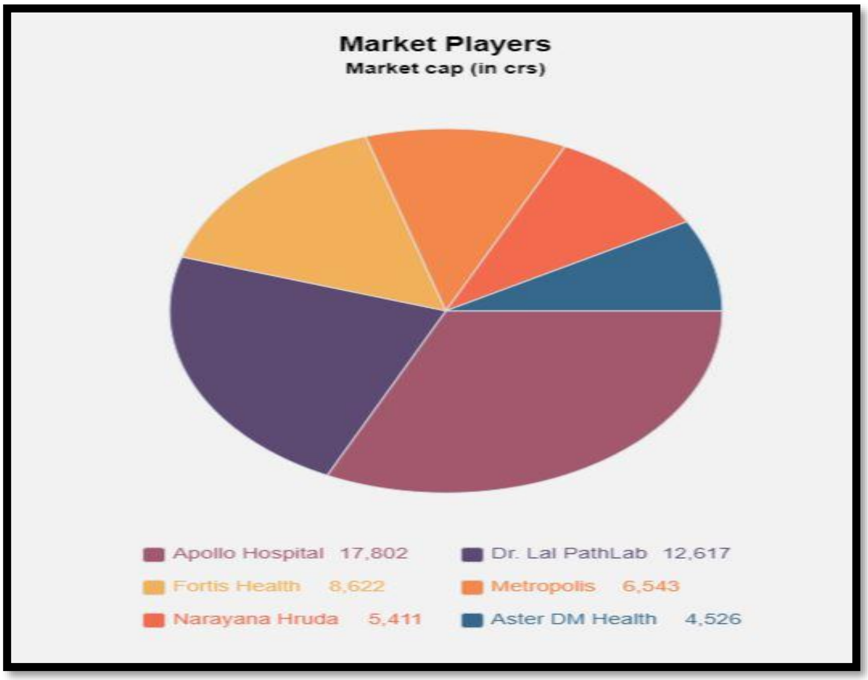
Some major investments were as follows:

- In the hospital market, the value of merger and acquisition (M&A) deals jumped by record 155 per cent in FY19 at Rs.7,615cr (US$ 1.09 billion).
- Microsoft India and the Apollo Hospitals Group entered into an agreement in August 2019 to create a National Clinical Coordinating Committee for AI-powered cardiovascular disease risk score API.
- According to the Ministry of Health and Family Welfare, Government of India, India and Cuba have signed a Memorandum of Understanding (MoU) to increase cooperation in the areas of health and medicine.
- The de-merger of its hospital company with Manipal Hospital Enterprises was approved by Fortis Healthcare. TPG and Dr Ranjan Pal could invest Rs.3,900cr in Manipal Hospital Enterprise (US$ 602.41mn).

Growth opportunities

- With massive capital spending for advanced diagnostic facilities, the country has also become one of the leading destinations for high-end diagnostic services, catering for a larger proportion of the population. In turn, users of Indian medical services have become more aware of their health care maintenance.
- Indian healthcare industry is very diverse and full of opportunities in every category that includes providers, payers and medical technology. With competition growing, companies are trying to explore the new developments and patterns that will have a positive effect on their business.
- The hospital industry in India is expected to rise from Rs.4 trillion (US$ 61.79 billion) in FY17 to Rs.8.6 trillion (US$ 132.84 billion) in a CAGR of 16-17 per cent by FY22.
- India's government is expected to increase spending on public health to 2.5 per cent of the country's GDP by 2025.
- India's competitive advantage also lies in Indian companies' improved success rate in receiving Abbreviated New Drug Application (ANDA) approvals.
- India also provides huge opportunities in both research and technology and medical tourism.

Market players and their market cap



Macro environment analysis

- **Political/ Legal factor**: Each government policy would have a direct effect on Apollo Hospital's business laws, so politics would increase the Apollo Hospital risk factor. The government has developed an Indian for all public health systems since independence of India. The government will not only support the public hospital, it will also be able to manage the service, but also encourage the sustainable growth of private hospitals. It is the coexistence situation of public, private hospitals, so that all of India's medical institutions (including the Apollo Hospital) can have a good development area.
- **Social/Economic factor**: Due to the lack of funds in India, public hospitals cannot meet all Indians' needs. In order to maintain the public health system, the Indian government has increased the hospital's private funding, so that private hospitals can make more profit in this case, use their profits back to society, reduce the burden on public hospitals. This makes the Apollo Hospitals have more resources, equipment and optimization in the hospital setting, while enhancing credibility to attract more clients.
- **Technological factor**: Not only does Apollo Hospitals have the most sophisticated medical facilities in the world, the world's leading medical technology, and every medical doctor has achieved a world-class level of care in many medical fields. With such outstanding health conditions, the therapeutic impact can be greatly improved, although the low price helps the world attract patients in medicine.
- **Environmental factor**: India's medical standards are much better than other developing countries. Indian star quality hospital and medical care practice with its basic healthcare and hardware facilities, divided Samsung, 3,4 and 5-star quality. Apollo hospital with its pleasant atmosphere, clean equipment, has received the praise of patients in different countries
- **Globalization**: Globalization forces also affect the healthcare industry in India. Apollo Hospital's active medical outsourcing, the UK's annual revenue for more than $1 billion in medical services. It makes it much easier for Britain to see a doctor at the hospital queuing time. It shows that, due to the rapid growth of the medical industry, the powers of globalization for India's economy, while the consequences of globalization can be made stronger so that Apollo Hospitals can be increased.

Major revenue and cost drivers

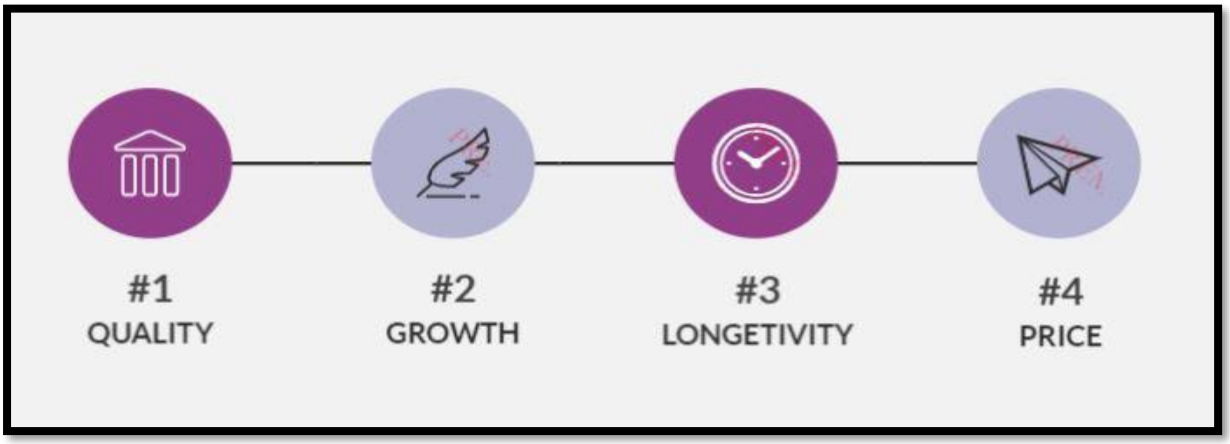
Revenue drivers

- No. of beds
- Occupancy rate
- No. of admissions (in patient)
- Average revenue per in-patient
- Average length of stay
- Footfall of pharmacies
- Average revenue per person
- Others like consults, check ups

Cost drivers

- No. of patients and treatment
- Minutes used by medical professionals
- Minutes used by technological assistants
- No. of setups used
- No. of associated manpower

QGLP Analysis



#1 Quality: Apollo is the Leading Company in the healthcare industry with a market cap of Rs.19,407.96 Cr

• Apollo is also focussing on reducing its debt from Rs.3300cr to Rs.2500cr by the end of FY, as per the press release from MD.

• About 55% of sales are generated from Hospitals and 40% from Pharma stores.

#2 Growth: Earnings are expected to grow significantly over the next 3 years.

• According to Frost & Sullivan, the ePharmacy market in India was around INR 3,500cr in 2018 and is estimated to grow at a CAGR of 63% to reach INR 25,000cr by 2022

• Q3 FY20 Consolidated EBITDA margin at 12.2% as compared to 11.2% in Q3FY19.

• As per research, Online Pharmacy Market is expected to grow tremendously by 2027.

#3 Longetivity: Apollo Hospital owns 32 Subsidiaries.

• 8 of the hospitals of Apollo are JCI accredited.

• The company is planning an expansion of 2000 new beds, with an increasing presence in new cities.

• In the coming year, the company would have specialty beds for cardiology and cancer.

#4 Price: Current P/E ratio is 60.54 above from the industry P/E ratio of 56.59

• Stock is trading at 5.61 times its book value

Competitive positioning

Financial highlights

- The promoters have reduced their pledge to 29.64% (down from 67.33%) of the total 30.8% holding using proceeds from the Apollo Munich deal. The management is expecting that the pledge will come down further by 25% by March/April 2020.
- The net debt according to consolidated accounts is Rs.3180cr. The company is planning to bring down the debt by Rs.2500-2600cr after the completion of the pharmacy restructuring exercise.
- ARPOB for mature hospitals might grow 7-8% going forward. The margins of new hospitals are supposed to expand by 11-15% in the next year.
- Consolidated healthcare services margins of EBITDA were at 18.4% in Q3 of FY20.
- Apollo Hospital Enterprise Ltd primary sources of liquidity are cash flows generated from operations as well as long-term borrowings. They believe that their internally generated cash flows, amounts invested in liquid funds and their approved and proposed debt will be adequate to service existing debt, finance internal growth and deploy funds for capital expenditure.
- Return on Net worth ratio increased from 6.31% to 7.80% for the financial year ended 31st March 2019.
- Constant improvement in inventory turnover ratio to 16.45 in the FY 2019 from 14.57 in FY 2018
- Cash generated from operating activities has increased from Rs.5369.60cr in March 2018 to Rs.9049.49cr in March 2019 Indicating a strong business performance.
- Company has increased its Investing Activities which has negatively affected its Cash flow from investing activities major investing has been done for building of new Hospitals and acquiring new equipment.
- Cash Flow from financing activities also showed a decline falling from -1084.98 Cr. to -2145.12 Cr. in the year ended March 2018 and 2019 respectively.
- Bad Debt recovery has been improved drastically also the company debt has been reduced as major cash inflows are used to pay off the debts.
- The total profit has been increased by 336% from 595.57cr to 2001.68cr from March 2018 to March 2019.
- The region wise growth was observed to be 1) Tamil Nadu- 13% to Rs.1712cr 2) AP, Telangana – 10% to Rs.838cr, Karnataka- 14% to Rs.556cr, new hospitals- 18% to Rs.834cr.

Rationale behind assumptions

1. Occupancy Rate: A 2% increase per year seemed appropriate because of the on-going Covid-19 pandemic. The occupancy rate of the number of beds will see a surge in the coming year. Also, people have become aware of the importance of getting treatment at early stages of any disease.
2. No. of hospitals: Since the occupancy rate will go up, the organisation will need to put up more infrastructures to accommodate their patients. They can also use their existing hospitals and add more beds. Hence, 1 hospital per year seemed logical.
3. No. of admissions: Following the trend observed in previous years, 0.02% increase in the no. of admissions per year was applied. It was a conservative approach as there are chances that there will be an increase up to 0.1% due to Covid-19.
4. Average length of stay: Average length of stay at the hospital has drastically reduced as compared to previous years due to technological advances and enhanced health consciousness among people. But there is a certain saturated limit which is needed to perform procedures and carry out the treatment. Hence, 3.99 no. of days was kept constant for the coming years.
5. Footfall in pharmacies: Medical supplies are need of the hour. Apollo Pharmacies observed more than 1 lakh customers in one day due to current circumstances. As an inference, 8% increase in footfall is assumed to continue for the following years.
6. Average revenue per occupied bed: There are various initiatives that the Government is taking in terms of welfare of patients like Ayushmann Bharat, 2018. Also, the treatment is becoming costlier per the day even for the hospitals. Collectively, this might impact the average revenue per occupied bed.
7. Revenue contribution from hospitals: A conservative assumption of 15% increase is taken owing to the increased number of admissions.
8. Revenue contribution from pharmacies: The CEO has already spoken about the rapid increase in the footfall at the pharmacies. This will generate extra revenue and hence the contribution is assumed to be 41%
9. Revenue contribution from other services: Though the other services provide a very small portion of total revenue, the contribution is expected to increase because of the varied new offerings like consults.

10. COGS: Due to increased medical needs, there is a competition between market players for supplies. This increases the bargaining power of suppliers and hence they are free to sell at their own chosen cost. This affects the COGS.
11. Employee Cost: Employee cost will by and large remain same. Promotions and appraisals are being held off for this year and hence the company will bear the same percentage of employee cost.
12. Non Cash Current Assets and Current Liabilities: For the Non Cash Current Assets and Current Liabilities, the trend was observed and a conservative assumption was made. Since it's a well-established company, they have already streamlined all their processes and have a way around their operations. There might be a few changes at some ends but they do not have any significant impact. The suppliers have also been conducting business with Apollo since a long time and there is a certain degree of security and understanding in terms of their deals. Hence, growth trend was kept constant moving forward.
13. Interest cost: The Company seems to depend less on the loans. There is no regular pattern of paying off their debts and so the interest cost is assumed to be at 7% following the trend of previous years. The company has planned to reduce its debt in the coming year and so there might be an impact on interest cost as well.

The choice between FCFE and FCFF! WHY?

- Firstly, we are interested in calculating the value of equity.
- FCFE is preferred because it provides a more accurate understanding of the firm's sustainable strategy.
- It helps in calculating the residual amount which is left for the common equity holders of the firm.

Calculation of cost of equity

Cost of equity = Risk free rate + (beta* Risk Premium)

= 6.5% + (0.99*6.5%)

= 12.94%

Valuation

After making assumptions moving forward from 2019 based on trends and current scenarios, the company according to the analysis is valued at **Rs.1678 per share.**

Relative Valuation for peer evaluation

KEY RATIOS	APOLLO	SHALBY	HEALTHCARE GLOBAL	ASTER DM	NARAYANA
Net Profit Margin	2.8	2.2	2.8	3.5	4.1
ROE	8.5	6.3	7.8	8.7	10.8
Asset Turnover	1.3	0.6	0.6	1.5	1.1
EBITDA Margin	14.3	20.1	15.5	14.2	13.4
P/E	31.2	9.5	12.4	15.4	39.7

Ratio Analysis:

Net Profit Margin: Higher the value of this ratio, the more valuable the company is.

- Since Narayana Hrudhayala shows the highest NPM, it means that it generates more net profit as a proportion of sales amongst its counterparts.
- The company is efficient in conversion of sales to actual profit.
- The rest of the market players follows the order: Aster DM > Apollo > Healthcare Global > Shalby ltd.

ROE: This ratio helps us understand the parameters of sustainability of a company. The higher the ratio, the company's management is considered to be more effective in using the assets to create profits.

- Narayana shows the highest value of ROE, followed by Aster DM, Apollo, HG, Shalby ltd.
- Since Apollo has an ROE equal to the industry average, it is deemed pretty good for the company.

Asset Turnover: This is an efficiency ratio. It shows a company's ability to generate sales from its assets in terms of sales.

- Aster DM tops this ratio amongst the chosen competitors followed by Apollo.

EBITDA Margins: This ratio helps us to conduct a fair comparison between all the players. The operating profit is calculated as a percentage of its revenue.

- Shalby ltd seems to leave its peer way behind in this context. This means that they have highly streamlined operating activities and have maintained very low amount of associated costs.
- The order is as follows: HG > Apollo > Aster DM > Narayana

P/E: It helps us to calculate the relative value of a company's shares amongst its peers.

- Narayana gives a tough fight and shows a great performance followed by Apollo, Aster DM, HG, Shalby ltd.
- It means that maybe the stock of Narayana is over-valued or there are expectations for its high growth.

Impact of Covid19 on healthcare industry

- The continuing spread of the Covid-19 pandemic continues to impact globally economy. The Covid-19 cases continue to grow with significant speed specifically regulated markets in many parts of the world. There is considerable uncertainty about when things are going to normalise. It's even unlikely that the hospital sector will remain unscathed.
- Covid-19 's impact on hospital stocks has taken on a toll, most of which have corrected between 20 per cent and 50 per cent anywhere in the last month. Large players such as Apollo Hospitals have seen a considerable drop in occupancy levels up to 40 percent from 69 percent in the middle of restrictions on movement of people (~50 percent volume of patients traveling) and postponement of elective procedures. Fortis has also begun to see a drop in elective numbers of operations resulting in a sharp decline of ~65%, 40% OPD volumes, IPD volumes, respectively. Occupancy levels are down from 68 per cent in Q3FY20 to 43-45 per cent. Domestic Narayana Hrudayalaya (NH) in outpatient volumes fell by 30-40% due to travel restrictions and postponement of elective procedures. The company have also temporarily suspended its operations at Cayman facility for two weeks due to an undisclosed Covid-19 case.
- Aster DM expects occupancy rates to decline by 20 per cent in India and GCC amid diminishing volumes of patients. According to management, the fall in crude oil prices is not expected to have a substantial effect on its Dubai sector (60% of GCC revenues), but may postpone payments from Saudi Arabia where 40% (4.4% of GCC revenues) of businesses are government-owned.
- As per the management, the impact on operations of Health Services Global (HCG) is likely to be limited since oncology is a non-elective & essential procedure with most cases formed by local patients. Also, margins are likely to be least impacted due to higher variable costs. However, the volumes of outpatients and hospital patients in Shalfy have dropped dramatically due to a 50-60% contribution to the orthopaedic mix.
- Hospital-wide business was also affected by the absence of medical tourists in the midst of inbound travel advisories and national lockdown. Medical tourism contributes 11 per cent to the income mix of Apollo, Narayana: 11%, Fortis: 10%, Aster DM: 5.2%, HCG: 4-5% and Shalfy: 2-3%. On the other hand, the

pharmaceutical industry in Apollo is seeing a surge in demand, especially in chronic segment.

- Growth in clinics at Aster DM is also likely to increase due to an increase in respiratory patients and pharmacy business as demand for hand sanitizers, vitamins and immune booster increases. But volumes of the diagnostic segment (SRL) at Fortis are likely to be affected by the lockdown 60 per cent. With fixed costs accounting for 60-80 per cent of hospital costs, low occupancy numbers and ARPOB hit are likely to affect the hospital sector results. Despite short-term outbursts, the Hospital Sector fundamentals remain intact. All in all we are expecting hindrances from proceeding with complete normalcy from H2FY21 for the next two to three months.

IV. Analysis and Discussion

CREDIT RISK ANALYSIS

1. OPERATIONAL ANALYSIS

In-Patient Admissions

- Steady Growth of In-Patient admissions from 211000 in FY09 to 451000 in FY19.
- CAGR of 8%.

Average Length of Stay (ALOS)

- Consistent reduction in ALOS due to use of advanced methods for treatment.
- ALOS reduced from 5.15 days in FY09 to 3.99 days in FY19.

Average Revenue Per Occupied Bed (ARPOB)

- ARPOB has a healthy CAGR of 8% for the last nine years.
- Culmination of high occupancy, higher realizations, better case mix and decreasing ALOS.

2. INDUSTRY HIGHLIGHTS

Attractiveness

- Hugely under-penetrated market with attractive dynamics.
- Increase in medical tourism.

Competition

- AHEL is the leading private sector health care service provider in the Indian market.

Investments

- Attracted FDI worth US$ 6.625 billion between the year 2000 and 2019.

Opportunities

- Looking at the present scenario, health care sector has emerged out as the sole most important service.
- Expected increase in government spending on public health across the globe.

3. FINANCIAL ANALYSIS

Revenue

- Strong Growth in Revenues across businesses.
- Consolidated Revenue growth was about 17% from FY2018 to FY2019.

Profitability

- Consolidated EBITDA growth stood at 34% in the previous year.
- But the EBITDA margin ratio has been constantly decreasing for the company.

EPS

- EPS doubled from Rs. 8.44 in FY2018 to Rs. 16.97 in FY2019 making the company attractive for investors.

Solvency

- The Solvency Ratios are well above the danger limit, indicating strong financial position of the company.

ROI

- Steady impprovement in Return on Capital Employed through efficient use of capital.
- ROCE, including investment for new hospitals, stood at 12% for FY2019.

Borrowings

- The reliance on long term borrowings was the most for sourcing of funds.
- There was no breach of loan covenants as specified by the Independent Auditor in his report as at 31st March 2019.

4. MANAGEMENT RISK ANALYSIS

Management Team

- The board has a diverse profile both in terms of educational qualifications and work experience.

Financial Risks

- The decreasing growth rate of revenue has been a major problem for the company.
- Net profit has been decreasing.
- But the company bounced back in 2019 and is on its way to revive its financial figures.

Major Decisions

- Recently, In order to streamline the group's business and maximise shareholder value, the country's largest private sector healthcare provider, Apollo Hospitals has spinned off its front-end retail pharmacy business into Apollo Pharmacies (APL).

Conclusion

Overall, a positive outlook for the company can be developed. This may well be further enhanced, considering the future opportunities, and its stronghold in the market, coupled with the robust all-round performance.

Part C- Learning from the summer training project

Learning outcomes

After building a comprehensive financial model I was not only able to evaluate businesses against its peers but also value a business in the industry. It has helped me develop deep industry insight and analyse nuances in the efficiency of businesses. I spent days analysing the annual reports, understanding key drivers, metrics of evaluation and linked them to recent news and policy to develop a forecast on research backed assumptions. Besides developing fast and accurate excel skills, I believe I have learnt some insightful financial forecasting techniques. I consider myself capable of auditing and debugging such financial models and evaluate their assumptions on multiple aspects. Designing and constructing useful and robust financial modelling application is a very valuable skill that I hope to nurture further. Using the financial model and I was able to not only assess opportunity, but also align expectations for the business in the coming years.

In hindsight, I now realize that when I started this internship, I did not fully understand the implications of everything stated in the annual report. However, after having been through a dozen analyst reports and equity research reports, I realize that reading an annual report with industry insight brings a whole new dimension to understanding the inefficiencies of the business. I developed a research based objectives and acquired enough information to make logical assumptions. Toggling through the multiple spreadsheets of financial statements, assumptions and the model, I have become highly proficient in excel. The model is robust and can be updated easily by changing the colour coded assumptions.

The entire internship experience has also allowed me to interact with many industry experts and professors of reputed institutes. Besides adjusting to a virtual work environment, I also gained experience in presenting my findings. The in-depth analysis and constructing a financial model required me to derive from my learnings in accounting and finance classes of the first year. A practical application of these concepts have emboldened my confidence and acquired skills that could possibly also be used in building a business of my own. Concepts which had earlier seemed abstract have now become very clear and have aided in my choice of subjects for the second year. I believe this internship has helped my understanding of finance concepts and will allow me to get better job prospects in the future.

References

http://www.nibmindia.org/

https://www.apollohospitals.com/apollo_pdf/annual-report-year-2019.pdf

https://www.apollohospitals.com/apollo_pdf/ahel-annual-report-2018.pdf

https://www.apollohospitals.com/apollo_pdf/annual-report-2017.pdf

https://www.apollohospitals.com/apollo_pdf/annual-report-year-2016.pdf

https://www.apollohospitals.com/apollo_pdf/AHEL-Investor-Presentation-June19-INR.pdf

https://www.apollohospitals.com/corporate/investor-relations/financial-reports

https://www.apollohospitals.com/apollo_pdf/AHEL-Q3FY20-Earnings-Update.pdf

https://www.ukessays.com/essays/business/analysis-of-the-apollo-hospitals.php

https://www.apollohospitals.com/corporate/the-apollo-story/milestones/a-day-at-apollo

IDirect_ApolloHospitals_Q3FY20.pdf