

CHAPTER II

FACTORS UNDERLYING THE DEVELOPMENT OF THE INDIA

This chapter discusses the factors underlying the progress of India. The first sub-chapter explains about how trade and economic progress experienced by India, the second sub-chapter is about the progress experienced by India in the field of industry and technology, while the third sub-chapter describes the development of India in science.

It's no secret that the strength of India has increased the dynamic and try to increase their influence and power in the realm of international relations. The size of India's population is more than 1 billion people. The increased economic achievements over the past decade makes India became a hub of economic relations in the region and led to the emergence of increased national confidence / self-awareness and the political will for more active participation in the international order. India is a country in South Asia. It is the seventh-largest country by area, the second-most populous country with over 1.2 billion people¹, and the most populous democracy in the world. Bounded by the Indian Ocean on the south, the Arabian Sea on the south-west, and the Bay of Bengal on the south-east, it shares land borders with Pakistan to the west; China, Nepal, and Bhutan to the north-east; and Burma and Bangladesh to the east. In the Indian Ocean, India is in the vicinity of Sri Lanka and the Maldives; in addition, India's Andaman and

¹ Public data, India population, Retrieved from http://www.google.com/publicdata/explore?ds=d5bncppjof8f9_&met_y=sp_pop_totl&hl=en&dl=en&idim=country:IND:CHN#lctype=l&strail=false&bcs=d&nselm=h&met_y=sp_pop_totl&scale

Nicobar Islands share a maritime border with Thailand and Indonesia. We can see the map of India as follow.



Image 1. Map of India

India is a federation with a parliamentary system governed under the Constitution of India, which serves as the country's supreme legal document. It is a constitutional republic and representative democracy, in which "majority rule is tempered by minority rights protected by law". Federalism in India defines the power distribution between the federal government and the states. The government abides by constitutional checks and balances. The Constitution of India, which came into effect on January 26th, 1950, states in its preamble that India is a sovereign, socialist, secular, democratic republic. India's form of government, traditionally described as "quasi-federal" with a strong centre and weak states, has grown increasingly federal since the late

1990s as a result of political, economic, and social changes. There are several factors that also underlies the progress of India, among others:

A. Economic and Trade

Indian economy was once much depend on agriculture, but now it only accounts for less than 25% of GDP. Other important industries are mining, petroleum, diamond, films, textiles, information technology, and crafts. Most of India's industrial area entered in the main cities. Recent years, India has emerged as one of the greatest players in the software and business process outsourcing. And there are also many small scale industries that provide steady employment for residents in small towns and rural areas. Although India has only received about three million foreign visitors every year, tourism remains an important source of national income but still undeveloped. Tourism accounts for 5.3 percent of India's GDP. India's major trading partners including the United States, Japan, the People's Republic of China and the United Arab Emirates. India's main exports include agricultural products, textiles, precious stones and jewelery, software services and technology, the results of engineering, chemistry, and the results of skin while commodity imports are crude oil, machinery, gems, fertilizer, chemicals.

As one of two new forces in the international community who is also a deputy Asia, India, is now being considered by many observers to be the opportunities the most influential country in the world and even

listed to be the second most powerful country in the world after China as a "newcomer". Although China

has annual growth reached 9.5%, exports are 10 times larger than India, and downgrades India as foreign investment magnet. In contrast, India's 7% growth per year, or higher only seven times during the last two decades period.²

According to the chief growth economist Keystone into account the average Chinese economy will peak of 8.8% in the next five years, and then tended to fall to below 7% in the 2020s, and about 4% in the 2040's. While India's growth in 2010 reached 7.3% and remained at a value of 7% until the mid 2030s, and is still within the range of 6% in 2050.³

India's economic revival seemed calmer. Less than 15 years ago, the Asian giant is not monitored by American radar. Although India has a well-established democracy and the private sector is very large, diplomatic relations with Washington is calm down, its economy is strangled by bureaucratic controls, and most of the industry can not be reached by overseas investors. Indeed, since the economic difference with the gaping authoritarian China, India's vibrant democracy is considered as a barrier to progress. It can be seen from the sluggish business conditions, so the dramatic reforms proposed by Prime Minister Narashima Rao welcomed doubts abroad.⁴

The biggest reasons why India has such a large growth potential in the long run simply because the population is younger and growing faster

² *ibid*, pg. 33

³ *ibid*

⁴ *ibid*, pg. vii

than China. Currently China has a population of 300 million more than India. But because of political one family, one child then they are either very low birth rate, China's population is expected to peak to around 1.45 billion in 2030. India's population is expected to grow 350 million people in 2030, more births than the United States, Western Europe, and China combined though.⁵ China's population is also aging more rapidly, as a result, the number of working-age Chinese will peak in 2020 and will continue to decline thereafter. In contrast, India's labor force will continue to grow for at least four decades or more. However India's fertility rate will decline, meaning future families have fewer children to be supported, and will be spending a lot more for things that are consumptive. Development experts have said that a combination of increased labor force and declining fertility is a "savings of population" that had helped power the explosive growth economies of the East Asian tigers in the 1960s to early 1990s.⁶

Besides the economic potential of India is owned by capital efficiency. Although only about 22-23% menginfestasikan of its GDP but India has been able to achieve an average growth of about 6% per year. Compared with China that emotion invest half of its GDP, amounting to 1.5 trillion USD just to achieve growth of 9.5% per year. An India trade

Association from year to year continues to strengthen. In 2011 India's trade

balance has reached 16 billion U.S. dollars. And India have agreed to the trade target of 25 billion U.S. dollars in 2015.⁷

In addition, investment in India is so great. It reached 35% of its GDP in the last decade, enabling China to compete with the growth of 9% more valuable. One reason is that the savings rate in India increased from 23.5% of GDP in 2001 to 28.1% in 2004. And because labor force growth and the shrinking number of family members, India's savings rate will continue to rise to a projected figure of 37% in 20 years.

India also planning to open more sectors that have long protected which may lure more foreign investors and could absorb more money. Sectors such as telecommunications, where growth in India in this sector is now growing even faster than China, commercial housing, and department stores. The experts even predicted the housing sector in India will draw in a lot of money from investors-foreign creditors, and the liberalization of the retail sector will contribute greatly to the progress of the Indian economy

Another thing to force India is the emergence of new entrepreneurs that are reliable. Small companies will be more dynamic and led by a new generation of entrepreneurs who take greater risks because they are expected to youthful creative and always ready to berinovasi. That is why most international firms prefer to cooperate with companies small to medium which had a turnover of 10 million USD to 100 million USD. It

⁷ Perdagangan Indonesia dan India Naik Terus. Retrieved from <http://bisnis.kompas.com/read/2012/03/06/16111734/twitter.com.on.june.9th.2013>

is not apart from best-talent from the Indian Institute of Technology (IIT) and Indian Institute of Management (IIM) flows and the company employed middle class is equivalent to the quality of its graduates Wharton and Massachusetts Institute of Technology. The result is a future company in India will be more dynamic in comparison with the existing corporate governance in China's management system tend to be weak.⁸

Another thing that also acts as the potential of India is owned by India's productivity conclusively that continued to grow by 2.5% over the last two decades. But it will continue to grow considering the liberalization of the industry, the literacy rate increased from 18% in 1951 to 65% at this time. India's growing openness to foreign trade, which rose from a value of 15% of GDP in 1991 to 26% currently.

B. Industry and Technology

Even the success of Indian industry in the areas such as software, semiconductor design, and customer service, almost no plasticity until just lately. Western companies have discussed a handful of "offshore outsourcing" (offshore outsourcing, which contracts with other companies from abroad who have access to experts, to shift some of the work in the company with the goal of cost savings or that the company is better able

The most basic thing that can be seen as a reference continued growth and development of human resources in India is the increasing literacy rate in 1951 only to be in the range of 18% and continues to increase each year until now the success rate of literacy rate has reached 65 %.¹⁰

India on the other hand has a vision of the future which seeks to ensure that the country is able to meet the future demand for knowledgeable workers at home and abroad. India some time ago producing college graduates by 3.1 million people per year, but this figure doubled in 2010. Number of engineering college does grow up 50% to 1600 up to 2007.¹¹ Of course not all of them good enough to produce world-class graduates of top schools such like IIT graduates, who cuman received 3,500 of 178,000 applicants in 2002.

Government of India also continues to move with the motion stimulus to boost growth in faculty salaries and to reach more students across the country through lectures broadcast over long distances. Influential American Indians helped establish the Indian School of Business is the new, which has a partnership with the Wharton School and the Kellogg Graduate School of Management at Northwestern University, and emulate most of the faculty in the United States.

Meanwhile, six colleges contact the IIT alumnus to get donations

university. "Our mission is to become one of the respected scientific institutions in the world", said the director of IIT Bombay, Ashok Mishra, who withdrew funds approximately 16 million USD from the alumni in the span of only 5 years ie from 1998 to 2003.

If India deals with its growth well, a large population can be an asset. Until 2020, 47% of Indians will be between 15-59 years old, compared to today's berpresentase only 35%. While the working-age population in the United States and China will shrink. So India is destined has a working population and the biggest customer in the world.¹² In fact according to the company Goldman, Sachs & Co. Think India can sustain annual growth of 7.5% per year.

Other evidence suggests that the existing human resource in India has been progressing when an Indian is unexpectedly able to go to Wall Street, where the brokers are under pressure to generate more pressure. Many people are turning to firms like Office Tiger in the southern city of Madras. The company employs 1,200 people who write research reports and financial analysis for eight Wall Street firms. Morgan Stanley, J.P. Morgan, Goldman Sachs and other big investment banks hire workforce analysts and their own service staff. Some turn to Mindspace, a city within a city covering an area of 140 hectares that glitters in Bombay slums next to the rural areas. Approximately 3 million square feet has

been leased by the western financial firms including Morgan Stanley to fill several floors of new buildings.¹³

For fledgling company in Silicon Valley, the Indian engineers enabling them to streamline R & D budget. PortalPlayer Inc., A multimedia chip maker and planting software for small devices such as music players, has hired 100 engineers India and the United States were mutually to update every day at 09.00 and 10.00 hours J. A. Chowdary, CEO of PortalPlayer in Hydera-bad which is a branch of Pinexe, said that his company has cut its six-month development cycle and cut R & D costs by 40%. This makes large investors such as Ventura has been pumping money of 82 Million USD to PortalPlayer. Advances in science have been able increase the capacity of existing human resource in India. It has been proved, as mentioned above, a variety of international companies and has a reputation as a great factory building in India or hires Indian engineers in strategic places such as the kinds of Wall Street as a form of appreciation for their confidence in the ability.

C. Science

The Indian government made a new policy to encourage the development of scientific innovation. Prime Minister Manmohan Singh expressed his government's policy will focus on areas of scientific, technological, and innovation (STI). New in the field of STI policy was

¹³ *Ibid*

announced to the public by Singh at the Annual Congress of Indian Research in Kolkata. Singh has called this policy as ambitious goals. Because, Singh will increase investment in science to double in the next five years starting in 2013. It was intended that India could get a list of five countries with the highest scientific publications in this decade. Currently, India invested \$ 12 billion per year budget for science and technology. One third of this amount comes from industry or approximately one percent of the gross domestic product (GDP).¹⁴

India excellence in software and computer science is entering a whole spectrum of industries. Although today compared to China, India is a small fish in a manufacturing country but India was digging industrial area that is even more valuable software, design, and service. India's economic role is also well hidden. A wireless device for Motorola, Cisco network switches, or equipment through Philip, would read "Made in China" on the other side, but most of the software and the integration of multimedia technology that provides real profit margins could be developed in India. Cities like Bungalow, Pune, and Hyderabad are engineering centers that have an important mission for the General, Microsoft, SAP, Intel, Texas Instruments, and other technology giants.

Five years ago, exports of software and technology services from India, which includes outsourcing research and development facilities as well as work for the customer service (call center) is very small. This

¹⁴ Cara India Menjadi Negara Terdepan di Bidang Ilmu Pengetahuan. Retrieved from <http://kampus.okezone.com/read/2013/01/18/373/748228/cara-india-menjadi-negara->

exports only around 2.2 billion USD in 2005 and will reach 148 billion USD in 2012, as projected by the McKinsey Co. And Nascom, information technology services trade association of India.

Companies such as Infosys, Tata Consulting Services, Wipro, HCC, and Satyam have started their global action as a software designer cheap for foreign corporations. By providing a large increase in resource consisting of engineers and scientists nationwide, these companies have evolved into the field of consulting, outsourcing of business processes, services and R & D (research and development).

Through a bypass strategy Services companies such as IBM, Accenture, and EDS by 30% -40%, the company has transformed the Indian information technology industry prices and the global information technology services amounted to 650 billion USD.¹⁵ The company currently India's information technology industry became an important link in the innovation chain, ranging from cars and airplanes to pharmaceuticals. By using 3-D computer simulations, the Indian engineers can remotely test the chemical reactions of a new composition and design tweaking virtual prototype engines, aircraft wings, and even entire assembly line factory automation. India's soft power in perangkat planted, meanwhile, grew to more valuable as more functions car,

1. machine tools convert into silicon filter

The next step for India, is expected by many experts, is to integrate the software and its design industry as a footstool to serve as the next major world manufacturing base. It is then seen by many international companies such as Nokia, Hyundai, BMW, and Jabil Circuits (leading electronics contract manufacturing company) is building industrial park that will evoke Indian component industry.

India also encourages manufacturing companies that are globally competitive in producing sophisticated products that are small-scale and intensive engineering techniques, such as medical equipment, generators, and auto parts that require precision. India's infrastructure is outdated, bureaucratic-round ban, and strict labor laws that make it difficult for layoffs have slowed the development of the industry. If India can overcome this problem, however, this country will be able to challenge People's Republic of China with all the different manufactures.

From the three factors underlying the progress of India as described above, researchers create a table that contains the data about the progress of these three areas, which is in the field of Economics, Technology and Industry, and Science.

Table 1. The achievement of India in the field of Economics, Technology and Industry, and Science.

No	Sector	Year	Details
1	Economics	1984	Economic reform measures began to be implemented, Prime Minister Rajiv Gandhi (of Congress Party) exclude approximately twenty-five types of industry must follow this policy and conduct licensing liberalization measures for many

			other branches of industry.
2	Economics	1991	Prime Minister Rarashima Rao (of Bharatiya Janata Party) take steps liberalization much more widely, for example, exclude the licensing policy for all branches of industry and opened the door wider to foreign investment. Measures is an embryo of the Indian economy "go global".
3	Economics	1991	In 1991 the main engine of economic growth in India is a large and medium-sized companies, such as and Bajaj groups, which are generally Tata grouped in the formal sector.
4	Economics	1991	The poverty rate in India fell from 50% (1970) to 38% (1991).
5	Industry and technology	1998	India experienced significant changes in the development of the information technology industry. India's prime minister at that time formed the National Technology and Software Development Task Force is composed of various individuals with the best skills and represent a variety of backgrounds such as government, industry and the academic world. ¹⁶
6	Industry and technology	2001	Government of India released a draft Communications Bill Cenvergence used as a regulatory framework for the convergence of telecommunications, Internet and broadcasting services.
6	Economics	2003	India's economic growth and consistently high average above 8.0%. This growth is closely related to the development of the sectoral and economic reform measures that have been conducted since 1984.
6	Economics	2006	This year India's economic growth reached 9.1%.
	Industry and technology	2006	India has hundreds of thousands of

			technicians yielding the industrial machinery and software. With the need for software installation, the expertise of Indian society can progress quickly.
7	Industry and technology	2006	This year India's industrial growth of 10.5%.
8	Industry and technology	2008	Prime Minister Mamohan Singh has inaugurated the DRDO (Defence Research and Development Organisation / Defence Research and Development Institute) India said that the Indian national industry in the near future will be able to develop technologically advanced weapons robotics, sensors and stealth (technology for combat aircraft that can not be detected radar).
9	Industry and technology	2008	India has managed to make his country a target of "outsourcing" (contracting a company to force other companies) by the IT major countries such as the U.S., in addition has enabled the industry to sustain its own technological advances, such as in Bangalore.