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Comparative Analysis of HDI of India and Singapore

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Abstract

We often associate the development of a country with its economic growth. However, it is interesting to see that a country like Singapore that has less economic growth than India, which is the third fastest-growing economy in the world, tends to score better in terms of human development, leaving us with the question of what worked for Singapore that India is not taking into account. The paper is an attempt to analyze these gaps in the context of India and also find out the shortcomings within the high HDI score of Singapore using both qualitative and quantitative secondary data. Among the three-dimension index of HDI score- Gross National Index (GNI), Life Expectancy Index and Education Index- it is seen that GNI of India is better than Singapore but problems like overpopulation, high unemployment rate along poverty do not let the economic growth assimilate in the economy. India has the potential to become a net exporter in the global market and the country is trying its way to becoming an attractive destination for companies abroad. Whereas, Singapore has well-structured and detailed healthcare facilities and a specialised education system these facilities are expensive to access, raising the cost of living for people. India has great scope in medical tourism (3rd in the world) as it offers cheap and accessible medical facilities (Tour my India, 2020) while Singapore is a knowledge-based economy and aspires to be a “global schoolhouse” by imparting qualitative and skill-based education to international students (Sidhu, R., Ho, K. C., & Yeoh, B., 2011).

Keywords: *human development, GNI, health expectancy, learning outcomes in education*

1.0 Introduction

1.1 Human Development Index (HDI)

The Human Development Index (HDI) is a statistical measure of a country's overall development in its social and economic aspects (The Economic Times, n.d.). HDI was created in 1990 as a measure of a country's development and is further used by the United Nations Development Program (UNDP) to rank the countries every year based on their development status. It is considered one of the best tools to track the progress of a country as it uses both social and economic indicators (The Economic Times, n.d.). HDI is a combined measure of a country's progress taking three basic aspects of human development into consideration:

health, knowledge level and standard of living.

- Health is computed by the Life Expectancy Index.
- Education level is measured by mean and expected years of schooling.
- Standard of living is measured by Gross National Income per capita in purchasing power parity (PPP) terms in USD.

HDI is expressed as a value between 0 and 1. The higher the HDI value, the higher is the country's development.

1.1.1 Life Expectancy Index

Life Expectancy at birth is the average number of years that a newborn baby could expect to live, if mortality patterns at the time of its birth remain constant in the future, for a specific year, in a particular country, territory, or geographic area. (Suzuki et al., 2013) Life expectancy at birth is obtained from life tables and is based on death rates specific to age and sex. It reflects the mortality pattern that prevails across all age groups- children and adolescents, adults, and the elderly.

1.1.2 Education Index

The Education Index is measured as a composite measure of the average adult years of schooling with expected years of schooling for students under the age of 25, each weighing 50%. Expected years of schooling (EYS) is a calculation of the number of years a student is expected to attend school or university. In most countries, the highest level of education is obtainable in 18 years (Wikipedia contributors, 2021). Mean years of schooling (MYS) is a calculation of the average number of years of education a student over the age of 25 has actually received. The projected maximum of this indicator by 2025 is 15 years (Education index, 2021).

In research from Chakravarthi (2011), the Education Index (EI) is calculated as:

$$EI = \frac{\frac{EYS}{18} + \frac{MYS}{15}}{2}$$

1.1.3 Gross National Income (GNI)

Gross National Income (GNI) is the total income or money earned by a nation's citizens, businesses, and investments. It is a tracker of a country's total wealth (Team, Gross National Income 2021). It is a composite measure of the country's GDP, foreign investments inflow and foreign investments outflow.

Gross Domestic Product (GDP) is the total sum of all goods and services produced in a country, in a given period of time. GNI is a more accurate indicator than GDP as it does not calculate the output, but calculates income (The Investopedia Team, 2021). Therefore, nations with substantial amounts of foreign investments will show a significant difference in their GDP and GNI values. GNI can be calculated by adding the income from foreign sources to GDP.

1.2 Reasons for Choosing India and Singapore

The reasons for taking India and Singapore for our analysis are as follows:

- India is the 6th largest economy while Singapore ranks 38th in the world. But Singapore still surpasses India in terms of HDI values. (Wikipedia contributors, 2021b)
- Both India and Singapore are Asian countries.
- India has the 2nd largest population in the world which means a higher amount of human capital, in contrast, even though Singapore's population is around 240 times lesser, it has a higher HDI value.
- Singapore does not have any natural resources, but its economy majorly depends on manufacturing, international trade and ease of doing business. India on the other hand, has significant natural resources but has a service-based economy.

So, using the above points as the basis of our research, we analyse why India is unable to overcome these shortcomings and how it can reach the higher level of HDI inspired by Singapore.

1.3 Methodology

This research paper analyses the different aspects of HDI for India and Singapore. The reasons for Singapore's high HDI value and what went wrong with India for a lower value are

reviewed. The paper uses qualitative data and some major statistics extracted through secondary research by a thorough reading of research papers and articles over the internet. A comparative analysis is done between India and Singapore on various parameters directly and indirectly related to the Human Development Index (HDI).

2.0 Literature Review

2.1 Singapore's Ranking in Health and Education Sector

Evidence showing the progress of the human development indicators and the efficiency level of government expenditure on per capita health and education sectors and transfers and subsidies in 81 countries taking human development as government target output in the respective countries using Data Envelopment Analysis (DEA), reveals that out of 81 countries, only Singapore and Zambia has positive improvements among the countries that were listed in efficient frontiers (Prasetyo & Zuhdi, 1970). This throws light on the fact that Singapore's brilliant health structure and efficient education system are the results of its government expenditure and subsidies in the mentioned sector. Also, the country's effort in research and technological improvement is an additive advantage to it.

2.2 History of India's GDP and HDI

Studies show that the Education Index has had the greatest impact on domestic growth Human Development Index than the GDP per capita index. Although life expectancy trends show an increase, it has had a lower impact than GDP per capita production index on human development index, which highlights that India is progressing more economically and improving upon the education index and the progress is noticeable but not sufficient for the country, given the resources it is endowed with. (Khodabakhshi, 2011)

2.3 History of India's Life Expectancy

There is a positive relation explored between life expectancy and public health expenditure and per capita public expenditure on health, monthly per capita consumption expenditure, per capita income (constant prices), literacy rate, electricity, telephone, and pucca housing facilities. A negative association exists between life expectancy at birth and

demographic variables like decadal population growth rate, birth rate and death rate in the literature (Singariya, 2013). This highlights a loop where a poor household with less per capita income would have fewer opportunities for education and good healthcare which further narrows their job prospects resulting in low income. Hence, the role of income, healthcare and education in human development is essential and an area of concern for countries. Besides, there is a population growth rate also impacting life expectancy, which can be a reason for the lower index for India and higher index for Singapore.

2.4 History of India's Education System

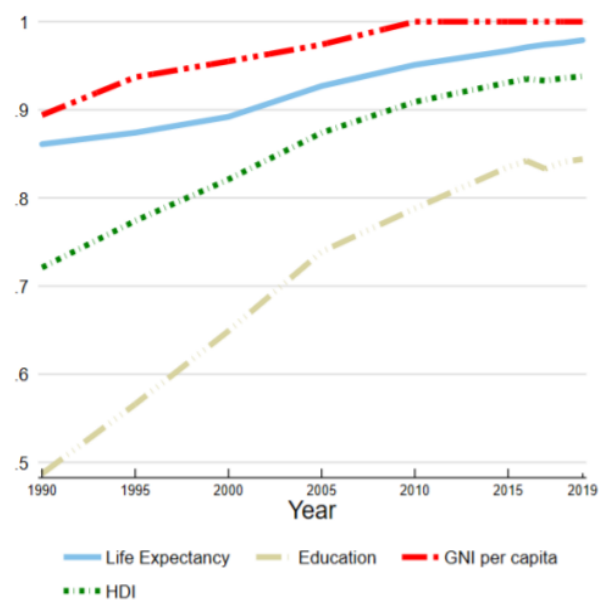
On the similar lines of public expenditure on education of India with others, it has been found out that among the countries like the USA, China, UK, Australia, Brazil, and South Africa, India has the lowest education expenditure (Bhatia & Dash, 2010). Additionally, 140 out of the 355 universities and 3,492 out of the 18,064 colleges have been accredited by National Assessment and Accreditation Council (NAAC). This covered just over 10 % of all institutions and barely any private colleges and universities. The results of the accreditation process indicate serious quality problems in the Indian education system. The Gross Enrollment Ratio (GER) of India is increasing at a very slow rate, which highlights the problem of learning gaps in India.

3.0 Human Development Index Historical Analysis

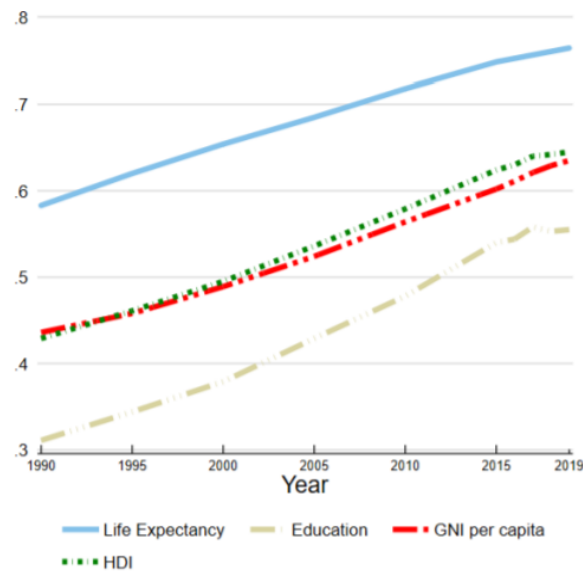
Parameter	Singapore	India
HDI (2019)	0.938	0.645
Worldwide HDI Rank (2019)	11	131
Category (2019)	High human development category	Medium human development category
Life expectancy at Birth (2019)	83.6 years	69.7 years

Expected years of schooling (2019)	16.4 years	12.2 years
Mean years of schooling (2019)	11.6 years	6.5 years
GNI per capita (PPP) (2019)	88,155 USD	6,681 USD

Figure 1.0 and 2.0: Trends in Singapore's (above) and India's (below) HDI and its component indices from 1990 to 2019



Source: UNDP. December 2020. Singapore-Human Development Reports, P. 3



Source: (UNDP, December 2020. India-Human Development Reports, P. 3)

- Singapore is a high human development country whereas India is a middle human development country. Between 1990 and 2019, the HDI of Singapore and India has seen an increase of 30.1% and 50.3% respectively.
- Between 1990 and 2019, Singapore's GNI per capita increased by about 137.8%. Singapore's life expectancy at birth increased by 7.7 years, mean years of schooling increased by 5.8 years, and expected years of schooling increased by 5.8 years.
- Between 1990 and 2019, India's GNI per capita increased by about 273.9%. India's life expectancy at birth increased by 11.8 years, mean years of schooling increased by 3.5 years, and expected years of schooling increased by 4.5 years.

The above analysis shows that there has been more significant growth in India with respect to HDI, GNI per capita and life expectancy at birth than in Singapore. However, in terms of mean and expected years of schooling, Singapore leads India. Hence, we can deduce that the education sector in Singapore has better growth than India's. Whereas, the healthcare system of India has a higher growth. This paper further analyzes India and Singapore on these bases in depth.

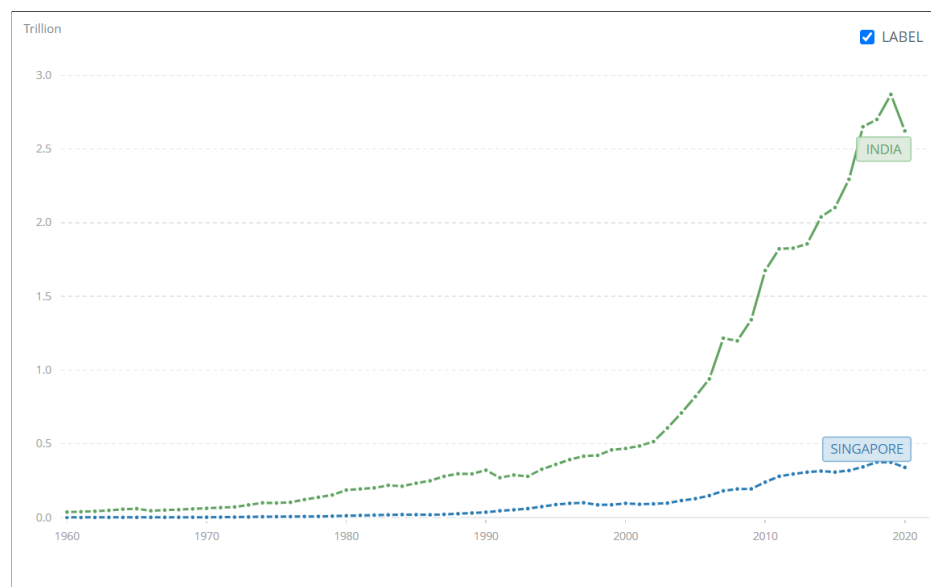
4.0 Comparative Analysis of the Factors Contributing to the HDI of India and Singapore**4.1 Economic Analysis**

Parameter	Singapore	India
Gross National Income (2020)	Singapore has a GNI of 298.439 billion USD.	India has a GNI of 2.598 trillion USD.
GNI (PPP) per capita (2020)	Singapore has a GNI (PPP) per capita of 86,480 USD and ranks 2 nd worldwide.	India has a GNI (PPP) per capita of 6,390 USD and a rank of 121.
Gross Domestic Product (2020)	Singapore is a high-income economy with a GDP of 339.998 billion USD and ranks 38 th in the world.	India is a middle-income developing market economy with a GDP of 2.623 trillion USD and ranks 6 th in the world.
GDP per capita (2020)	The GDP per capita of 59,797 USD.	The GDP per capita is 1,900.7 USD.
Unemployment Rate	The unemployment rate is as low as 2.7% in June 2021.	The unemployment rate is 8.32% as of August 2021.
Global Financial Centres Index	As a global financial center, Singapore has a rating of 740 and ranks 5 th in the world.	India's Mumbai city has a rating of 599 and ranks 65 th in the world.
Sovereign Wealth Funds (pool of funds in form of assets that can be deployed for investment purposes)	Singapore owns not only one but two SWF, namely Temasek Holdings and GIC Private Limited, worth around 1 trillion USD.	India owns one SWF, namely the National investment and infrastructure Fund, worth over 4 billion USD
Ease of Doing Business Rank according to The World Bank Group (2020)	Singapore ranks 2 nd in the world in ease of doing business.	India ranks 63 rd worldwide in ease of doing business.

Income Tax Rate	The income tax rate charged in Singapore lies between the range 0-22% progressively.	The income tax rate charged in India lies between the range of 0-30% proportionally.
Foreign Direct Investment (net inflows) (2019)	Net FDI inflows in Singapore were worth 120.439 billion USD; more than double India's.	Net FDI inflows in India were worth 50.611 billion USD.
Exports of Goods and Services (2020)	599.198 billion USD worth of goods and services were exported.	484.953 billion USD worth of goods and services were exported.

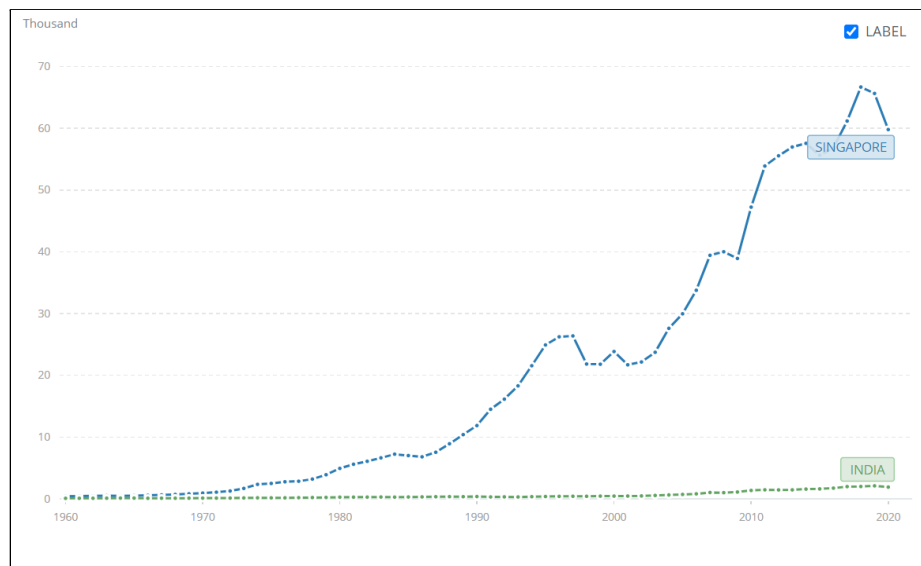
Source: (World Bank. World Bank Indicators. 2020)

Figure 3.0: GDP (USD) of India [above] & GDP per capita(USD) [below] of Singapore from 1960 to 2020



Source: (World Bank. World Bank Indicators, 2020)

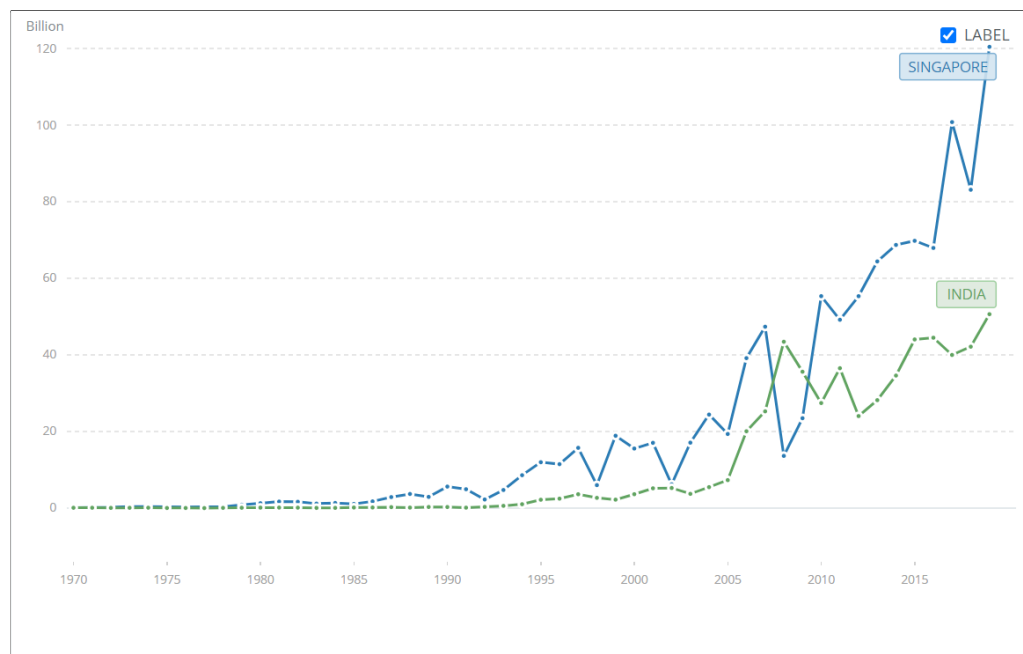
Figure 4.0: GDP per capita (USD) of India [above] & GDP per capita (USD) [below] of Singapore from 1960 to 2020



Source: (World Bank. World Bank Indicators, 2020)

In figures 3 and 4, a stark difference can be seen in the GDP distribution of the countries. India is a trillion-dollar economy and has 30 times lower GDP per capita than Singapore.

Figure 5.0: FDI, net inflows for India and Singapore from 1970 to 2019



Source: (World Bank. World Bank Indicators, 2019)

Singapore being a smaller nation, is able to attract FDI more than double of India's due to its effective government policies.

4.1.1 A Closer Look at Singapore's Economic Conditions

Singapore is a high-income country, having stability and a prime location.

- Singapore's economy is mainly driven by manufacturing, service sector, finance and insurance industry, tourism, and infrastructural exchange (The World Bank, 2019). The manufacturing sector makes up to 20% of the economy. There are oil refineries and large petroleum exports, even when there are no natural resources.
- The country acts as a regional hub, provides services to its neighbours and acts as a gateway to international giants wanting to operate in the region. Singapore has a network effect. The ports of the country are 2nd largest by volume in the world after Shanghai and 1st in the world for transshipment. The airports are a hub for several flights as the island lies between Asia and Europe (Bhaskaran, 2020).
- To attract more tourism, the government makes advancements in infrastructure. To get more FDI, the government fought corruption, being 3rd least corrupt country in the world according to The Transparency International (TI) Corruption Perceptions Index (CPI) 2020, built friendly relations with large international corporations, and made it easy to do business (Transparency International, 2019).
- The government provides different funds to the companies for upskilling and educating the workers to make their human capital more efficient.
- A National Wage Council is established that focuses on maintaining good relations between 3 key stakeholders - government, businesses and trade unions; it also ensures the increase in wages happens in line with productivity over the long term to maintain a competitive edge.
- There is a Central Provident Fund, in which citizens have to contribute willingly or unwillingly. The return on savings is approximately 5% (Kagan, 2020).

But there are some challenges that need to be overcome.

- It has a highly unequal society and the distribution of economic growth benefits

remains skewed. This can be measured by the Gini coefficient, which assigns a value between 0 and 1, and a lower value means a more equal society. The Gini coefficient value for Singapore was 0.35 in 2020 (Statista, 2021).

- The business costs are rising faster than in peer countries, which is becoming a burden on foreign investors.
- Singapore is ranked 27th in the affordability index 2021. Thereby, the affordability of people is low because of inequality and an expensive environment (The Inclusive Internet Index, 2021).
- The Return On Equity (ROE) has also declined in almost 6 out of 10 sectors, which in turn increases the risk of boosted competitiveness (Bhaskaran, 2020).
- The birth rate is as low as 8.5 births per one thousand people in 2020, and it is causing the workforce to stagnate and productivity to weaken.

This analysis shows that the measures Singapore has taken for growing incredibly have proved to be helpful. One reason for this incredible growth is effective government policies that have helped the country captivate huge foreign investments. Creative problem solving, political stability and careful regulation of the financial and banking system are some other characteristics of the country's economic model. But Singapore needs to make meticulous policy decisions to stay superior to its competitors and focus on achieving an equal society. The economy should be flexible enough to ensure that Singapore adjusts to changing situations, maintains its prime location and profits from emerging opportunities.

4.1.2 A Closer Look at India's Economic Conditions

India is a middle-income developing market economy and has a service-based economy.

- It is mainly driven by agriculture, the service sector and industrial production. Having an enormous amount of natural resources, India exports refined petroleum, gems and pharmaceuticals.
- The key sectors of growth include construction, financial services, technology, automotive and healthcare.
- The financial service sector of India is growing incredibly because of rising incomes

and awareness and several reforms launched by the government to liberalise the market and schemes such as 'Credit Guarantee Fund Scheme' and the 'MUDRA Yojana' to provide easy access to finance. The demonetization in 2016 benefited the economy through increased digital transactions, a rise in mutual fund and insurance investments, and an increase in income-tax returns filed (Invest India, 2019).

- The government launched the 'Make in India' initiative with an aim to support the country's manufacturing sector and elevate its contribution to the GDP by attracting new foreign market entrants.
- The Government of India passed an Amendment in August 2016 to roll out the Goods and Services Tax (GST) - simplifying the complex multiple indirect tax structure.
- The India Investment Grid (IIG) is an initiative launched with the aim to showcase a menu of investment options across India on a single interactive platform, thus connecting potential investors to project promoters.

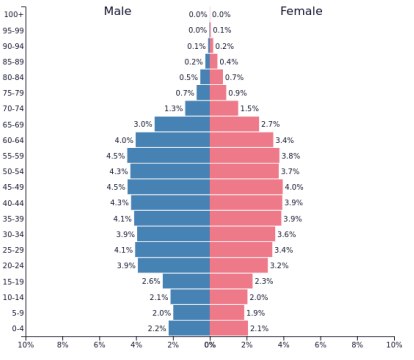
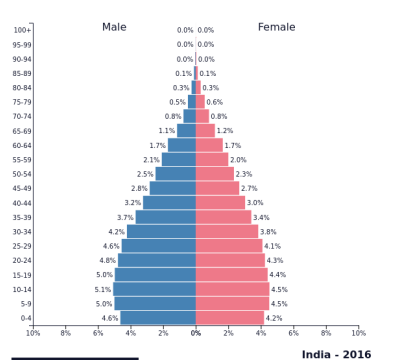
Some challenges faced by India's economy are listed below.

- High retail inflation of about 6.2% was there in 2020 due to which customer demand crashed.
- The rising debts of the country of around 570 billion USD in 2021 have put the banking system under massive bad loans (Bloomberg, 2021b).
- Unemployment is rising even when the labour force participation rate has declined from 49.3% in 2019 to 46.3% in 2020 (Misra, 2021).
- The decrease in the exchange rate of domestic currency (rupee) with the USD from a US dollar being worth Rs. 59 in 2014 to Rs. 73 in 2021, reflects the reduced purchasing power on the Indian rupee (Contributors, 2021).

India has high growth in GDP. The government has launched certain schemes that have proved to be efficient. To achieve a higher level of economic growth, consumer demand and purchasing power should be increased by either giving money directly to the people or indirectly by creating more jobs and putting the large human resources of the country to use. The economic policies are to be restructured for new growth drivers. There should be more

exports than imports by boosting the manufacturing sector. The country should also focus on providing skilled labour instead of cheap labour.

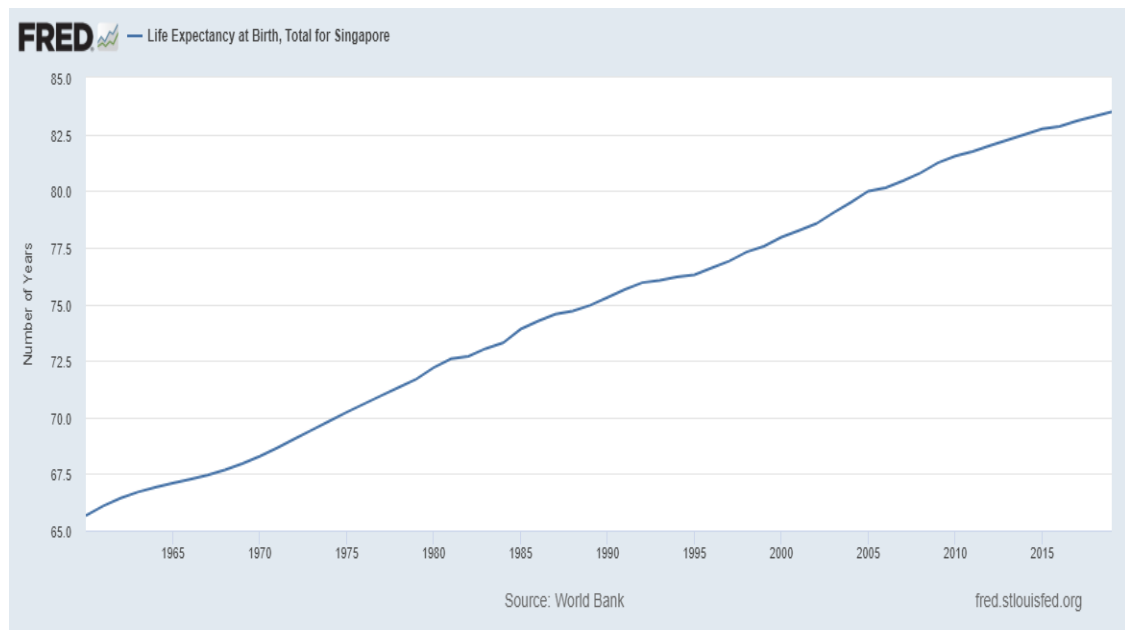
4.2 Life Expectancy Index Analysis

Parameters (2018-2019)	Singapore	India
Life Expectancy (Male, Female)	83.6 (81.5, 85.7)	70.8 (69.5, 72.2)
Health Life Expectancy	73.9	60.3
Rank	4	117
Birth Rate	8.6	19
Death Rate	3.5	7.3
Infant Mortality Rate	2.4	39.5
Fertility Rate	0.83	2.43
Population Pyramid	 <p>Singapore - 2019 Population: 5,804,343</p> <p>Source: Population Pyramid of Singapore, 2019</p>	 <p>India - 2016 Population: 1,324,517,250</p> <p>Source: Population Pyramid of India, 2019</p>

Source: (World Bank, World Bank Indicators, 2019)

India and Singapore, in terms of their population, are very different. India, being the second largest populated country in the world has more population to look after than Singapore. Furthermore, the demographic patterns are different for both countries.

Figure 6.0: Life Expectancy at Birth for Singapore from 1960 to 2019



Source: (FRED Economic Data. April 27, 2021)

4.2.1 A Closer Look at Singapore's Healthcare Structure

A good healthcare structure along with how health issues are addressed is a sector in which Singapore has successfully proved its prowess.

- The health expenditure constitutes 4.4% of the GDP (2017), and globally the first country to have skilled health personnel to attend to newborns. The country spends a good amount on health research and development as a part of its GDP which results in advancement in healthcare facilities and medical technology. (Michela Rahaim, 2019)
- The population has 100% access to clean drinking water and sanitation which prevents the spread of chronic and cardiovascular diseases.
- In addition to this, the longevity approach of the country also focuses on not only creating a longer but healthy life, which the people live by working more and delving into good lifestyles and dietary habits. (Professor Andrew Scott, 2019)
- The country has made announcements to devise policies such as increasing the retirement age and also increasing the employment ceiling from 62 to 65 years and 67 to 70 years by 2030 respectively to achieve the goal of a healthier life, especially for older people. (Professor Andrew Scott, 2019)

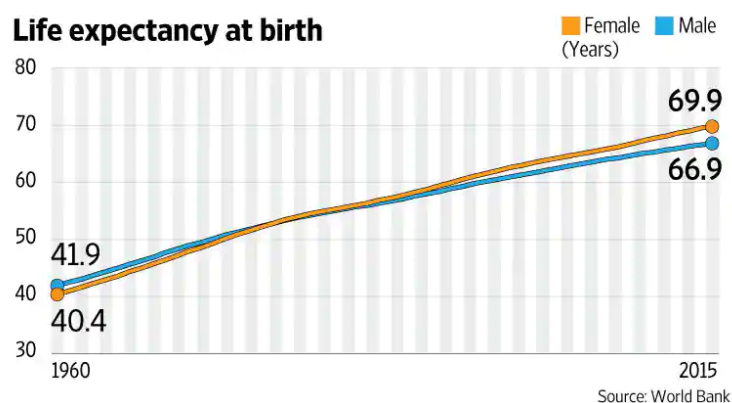
- The national government takes full responsibility for citizens' healthcare through the mixed financing system with a multiplayer healthcare financing framework. This system is called 3M- Medishield (healthcare insurance), Medisave (national medical saving scheme), Medifund (government safety nets) life, which is complemented by government subsidies. (Ministry of Health, Singapore)

Therefore, it ensures a well-organized way of ensuring primary, secondary and consultation healthcare services but there are hierarchies in the doctors' consultation as well. The better the physicians, the higher are the rates.

But, it seems that Singapore is one of the most expensive countries in the world (Formosa Post, 2019).

- The high living expenses of the country give a push to people to earn even after a certain age (Formosa Post, 2019).
- The health initiatives such as the 2016 Action Plan for successful ageing focused on health and wellness, senior volunteerism, life-long services, aged-care services, research on ageing along with active ageing and integrated community-based programs (Professor Andrew Scott, 2019).
- These are initiated to be used as preventive measures by the country, backed by sufficient Artificial Intelligence (IA) and available big data for the country (Michela Rahaim, 2019).

Figure 7.0: Life Expectancy at Birth for India from 1960 to 2015



Source: (World Bank. World Bank Indicators, 2015)

4.2.2 A Closer Look at India's Healthcare Structure

- On the other hand, in India, the public health expenditure is 1.4% (2017) of the GDP for a population of 3 billion people whereas the private health expenditure is at 70% (Bharath Kancharla, 2021).
- As far as India's health infrastructure network is concerned, there are a total of 25,308 Primary Health Centres (PHCs), 5,396 Community Health Centres (CHCs), and 763 district hospitals across the country (Maninder Dabas, 2017).
- According to India's union health ministry data, India is short of PHCs and CHCs by 22% and 32% as per the requirement of its population (Maninder Dabas, 2017).
- More to that there are problems of availability of doctors as well. The doctor to patient ratio in India is 9:10000 and the hospital bed to patients ratio is 7: 10000 (Maninder Dabas, 2017).
- The healthcare being pushed into the hands of the private sector is also a problem of unequal access to better healthcare facilities in India, which is something quite common in India and Singapore both.

However, unlike in Singapore, Indians bear about 57.7% out of the pocket expenditure on healthcare which is approximately doubled than what Singapore citizens have to pay (31%).

- In addition to the lack of healthcare facilities, hunger and lack of adequate nutrition are also problems that require immediate attention. Though India has improved its performance from 30.4 % to 22% in the Global Hunger Index over 20 years, it is far behind the country's development goals (Global Hunger Index Report, 2011).
- However, according to "The Dope" article on medical tourism, India's healthcare is very affordable. But, not for its own population, because of the country's low per capita GDP (1900 USD) and high poverty (50.9%-55.87%) (2021-22) (Raavya Bhattacharyya, 2020).
- Lack of proper access to drinking water, fresh air and sanitation in the country paved the way for various water-borne diseases and chronic diseases for infants and pregnant women as well (UNICEF, 2021).
- The infant mortality rate in India is 39.1/1000 and 2.4 /1000 in Singapore (UNICEF,

2021).

- More to this, India has a home to 25% of stunted children in India (The Hindu, 2019).

Our analysis shows that both the countries are making progress in order to achieve the goal of healthy and longer life, however, Singapore is way ahead of India in terms of building and making the healthcare facilities accessible because of its appreciated healthcare structure and higher % of GDP contributed to healthcare expenditure. Indian healthcare overdependence on private stakeholders, less governmental healthcare expenditure, low income and unequal facilities in urban and rural parts of the country hinders its progress in both generating and making healthcare accessible to people which contributes to lower life expectancy than Singapore. However, we can not deny that post-independence, there has been an upward rise in it but the pace is slow if we look at India's economic growth.

4.3 Knowledge Index

Parameters (2018-19)	Singapore	India
Education Index	0.844	0.555
Literacy Rate	97.3	74.4
Gross Enrollment Ratio (Primary, Secondary)	101,108	113,75
Government Expenditure	2.9% of GDP	3.8% of GDP
Dropout Percentage	0.9	8.8
Percentage Of Population With At Least Secondary Education (Male. Female)	81.4(85.1, 78.1)	39.3(47, 27.7)
Pupil-teacher ratio (Pupil Per Teacher)	15	33
Expected Year Of Schooling	16.4	12.2

Source: (World Bank. World Bank Indicators. 2019)

The Knowledge Index of Singapore indicates its better performance in seven areas - pre-university education, vocational and technical education, higher education, research, development and innovation, information and communications technology, economy and

general enabling environment.

4.3.1 A Closer Look into Singapore's Education Index

- Singapore's codified compulsory education makes it obligatory for its citizens to ensure primary education for its students. However, its gross enrollment ratio is less than India in primary education which can be due to much importance to homeschooling, which is not so encouraged in India (Luciana Schreier, 2019).
- Due to encouraging differentiated learning among students, according to their different learning dispositions and profiles, there is a division of students at the secondary level (Valerie Strauss, 2011).
- The education policy of Singapore focuses more on meritocracy and enhancing real-life skills. Gifted education programs and Special assistance plans are created to segregate intellectually gifted children and meritorious students in language and academics from others and help them provide better services and education facilities in terms of learning and fees (Mika Yamashita, 2002).
- The Ministry of Education is the main body that manages matters relating to education (Ministry of Education, Western Australia).
- Human manpower and enhancing their skills are considered important resources in Singapore due to the country's lack of natural resources.
- The country has only one technical institution National Institute of Education (NIE) to impart training to teachers to ensure the quality of training among teachers. Singapore's teachers generally spend long hours with their students as they are being advised to ensure building core values and morals. They are among the most highly paid teachers in the world (NCEE, 2021).
- The well-defined goals of education taking into account the strengths of its pupils encourage students to enrol more for secondary education (Pak Tee Ng; Charlene Tan, 2010).
- The PISA (Programme for International Assessment) measures students' reading, mathematical and science literacy, the country's students are among the highest scores, which indicate good learning outcomes as well (Sean Coughlan, 2016).

- The country aims to become a “Global Schoolhouse” for the source of revenue (Pak Tee Ng; Charlene Tan, 2010).

However, according to critics,

- The education system in Singapore is very rigid and elitist and higher education comes at a higher price (David Hogan, 2014).
- One of the OECD reports about students' well-being indicates 75% of students face anxiety issues (Luciana Schreier, 2019).
- Besides, Singapore's education system is not very inclusive as it does not ensure compulsory primary education for disabled students, which is left to their choice and there is less inclination to vocational training as well (David Hogan, 2014).
- Also, the country has a very rigid and competitive assessment system to compete in international science and mathematics competitions which indicates more use of rote learning by institutions than critical thinking skills (David Hogan, 2014) (Rebecca Lim, 2012).

4.3.2 A Closer Look into India's Education Index

- Even the Indian government has taken rigorous steps to ensure effective learning by making the Right to Compulsory Education (RTE), a fundamental right and ensuring enrollment in the primary section. (Ministry of Education, Government of India)
- The government expenditure in the education sector (3.1% of GDP) is higher than its health expenditure (1.8% of GDP), but still not satisfactory if we see the population of 1.3 billion. (Shreya Khaitan, 2021)
- In terms of vocational studies and training, India outnumbers Singapore with more than 4000 institutes devoted to vocational training (AICTE, 2021).
- The socially disadvantaged people have been supported by the reservation system. The present statistics is 7.5% of the scheduled tribes, 15% for the scheduled castes and 27% of the other backward class, but the exact percentages vary from state to state (Wikipedia contributors, 2021).
- But it seems that the learning gaps or access to education become difficult as the

students progress from primary to secondary. The reasons for these gaps can be manyfold - poverty, lack of schools, less parental education, tough curriculum, lack of teacher's training etc (Table 2.11; World Bank, 2018-19), (ASER report, 2020).

- Due to more numbers of learners and fewer teachers, the gaps in learning are bound to be seen (UNESCO Report, 2021).
- Moreover, there is a huge infrastructural difference between government and private schools. Even in India, higher and qualitative education comes with a high price (ASER, 2018).
- The government's policies like Sarva Shiksha Abhiyan, midday scheme, National Common Minimum Programme (NCMP) have tried to give education a major push. But, apart from enrollment, the curriculum needs to be devised in a way that it encourages conceptual based learning and not rote learning (Manesh Pratim Gohain, 2021).
- Grade inflation is a major problem seen in many countries like the USA, Japan and India as well, the reason for overanalyzing the merit is by giving them more marks than they deserve ("The 95% problem", TOI, 2021).

However, according to critics,

- The country lacks in the sphere of problem-solving which makes the learning in India more sort of cramming and rote than analytical. (Surabhi Sharma, 2020)
- Access to education is a very grave problem in both rural and urban areas and most of the time, economic deprivation and financial constraints force children to give up on their education (39% of the rural population in India and 6% of India's population, around 84 million, is under extreme poverty) (World Data Lab, 2021).
- In terms of addressing the gaps, Indians have great hope from the New Education policy (2019) to address all the institutional issues and it would be interesting to see how this policy fills the gaps in the Indian education sector catering to its vast population and poor infrastructure (Ministry of Education, Government of India).

5.0 Findings

- India has a long way to go in terms of catering and developing its social infrastructure (health, education, poverty, unemployment) to be able to improve its HDI score, yet the country has a good amount of natural resources, budding industries and third-largest economy to rely on that gives it some relative advantage to Singapore.
- Singapore's development was not mainly through its GDP growth rather the optimum utilization of its only resource, that is the human resource, through effective education and a well-structured health system the country was able to achieve a higher HDI score.
- Singapore advocates meritocracy, but there is no individual freedom in selecting the subjects students want to study; their merit decides their learning. Moreover, until now, the country has not been very supportive of the education of people with disabilities.
- Singapore economy is a free market has its root lies in its ease of doing business (2nd in the world), which attracts most people towards it and results in high FDI inflows. Whereas, India is not at a bad spot (65th in the world) in ease of doing business but has a lot of potentials owing to its growth rate and export flows as well (The World Bank, 2019b).
- India's gross enrollment ratio statistics show that it is easy to bring students to school but difficult to retain them from primary to secondary. Singapore through its differentiated learning and clear goals of education has been able to do that.

6.0 Recommendations

- India is growing progressively in terms of its economic growth, but the need is to focus more on social infrastructure like increasing expenditure on the health infrastructure, opening up clinics and dispensaries in remote areas, ensuring doctors availability, attention on learning outcomes, building school infrastructures etc.
- To achieve inclusive growth, the country needs to cater to its increasing population and better policies to alleviate poverty and reduce inequality by making basic needs accessible to poor people.

- Singapore became a developed country, part of East Asia Miracle because the country utilised the only resource they have i.e. human resources. Wonder what the optimum utilisation of human resources would do in a country that inhabits 1.3 billion people. Surely, India can have a very strong human capital!
- Singapore, in order to utilise its knowledge-based economy at a global level, must check the expensive cost of living and education in the country, which makes it less attractive compared to countries like China, Korea, Germany etc.

7.0 Conclusion

In terms of GDP and GNI, India (2.63 trillion and 2.6 trillion) has more economic potential than Singapore (339.9 billion and 298 billion). The growth rate of the country (4.2%) is 4 times more than Singapore (0.7%). Likewise Singapore, the Indian economy is also gradually transitioning to the manufacturing and service sector. But it lacks a formal system of regulating workers through formal trade unions. Among the growth sectors of India, healthcare is the most important and there is both lack of access and production of healthcare facilities within the country, which needs immediate attention both from the policy making and implementation part.

There is more scope for medical tourism in India because of its cheaper and affordable healthcare facilities, which can increase its exports of healthcare services, thereby boosting more GDP. The government of Singapore has thought out plans for its living, elderly population through integrated community action plans to ensure their quality of living and care for their mental health too. Singapore, due to lack of resources has empowered its humanity living resources in a way that it aims to generate revenue from its knowledge-based economy by becoming a “Global Schoolhouse”. Singapore’s system encourages merit whereas, in India, there is no such exclusive programme for students to appreciate their intellectual skills. Due to this, the meritorious students lack motivation and incentive to do better next time. Some might face financial constraints but have no alternative other than to leave school.

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