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From Income to Inclusion: A Comparative Human Capabilities Index for South Asian Economic Development

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ABSTRACT

A new Comparative Human Capabilities Index (CHCI), which goes beyond conventional measures like GDP or HDI, is presented in this study to evaluate the economic progress of South Asian nations. GDP per capita, GDP per person employed, trade as a percentage of GDP, life expectancy, secondary school enrollment, and GDP per capita are the six main variables that make up the index, which is based on Amartya Sen's capacity approach. Data collected from World Bank for eight nations between 2001 and 2015: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. In order to ensure comparability across variables, the CHCI was built using equal weighting and min-max normalization. The findings indicate that while Bangladesh and India have made notable progress over time, the Maldives and Sri Lanka continue to rank first in terms of human skills. Despite beginning with lower levels, Afghanistan and Nepal showed signs of improvement over time. As an alternative to more conventional indices like the Human progress Index (HDI), the index offers a more human-centered and inclusive lens through which to view the region's economic progress. This strategy emphasizes how crucial it is to make investments in productivity, health, and education in order to achieve long-term, fair development.

1 Introduction

In South Asia, trade volume, GDP growth, and per capita income are often used indicators of economic development. Although such indicators are helpful, they only provide just a part of the picture. Instead, then concentrating on people's lives or their potential, they emphasize economic productivity. Poverty, inequality, and social exclusion coexist with rapid economic expansion in many South Asian nations (Azam & Ahmad, 2010).

Essential facets of life are overlooked by traditional indicators. They don't represent the availability of good healthcare, education, or individual freedoms. They fall short in capturing political voice, decision-making power, and gender inequities. Using GDP alone to gauge development results in imprecise and perhaps misleading findings (Appleton & Tea, 1998).

Human-centered indices of progress must become the accepted standard. People's capabilities (the actual freedoms they have to live the lives they value) should be used to evaluate development. This concept has its roots in Amartya Sen's capability approach. It emphasizes what individuals can truly do and be (Barro, 2001).

The Comparative Human Capabilities Index (CHCI), a new tool, is presented in this study. It seeks to assess economic progress in a broader sense. Health, education, income, gender equality, political involvement, and access to essential services are some of the components that make up the CHCI. Both an opportunity and actual outcomes are reflected in these indicators (Iontsev & Magomedova, 2015).

Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka are the eight South Asian nations that are covered by the CHCI. Although these nations face similar economic difficulties and cultural ties, their development paths diverge. Finding their advantages, disadvantages, and policy gaps is made easier by comparing them using CHCI.

GDP is not replaced by this index. Rather, CHCI enhances it by providing attention to areas where nations may excel economically but fall behind in terms of human development. It also identifies areas where long-term advancement can be enhanced by investing in equity, health, and education. So, the main objective of this study is to develop and apply a Comparative Human Capabilities Index (CHCI) to measure economic development across South Asian countries.

The study's conclusions add to the global discourse on sustainable development. They promote the Sustainable Development Agenda of the United Nations. The CHCI encourages more inclusive and significant development initiatives by emphasizing capabilities rather than just revenue.

In summary, this study provides a new perspective for evaluating South Asia's economic development. It advocates for advancement that is people-centered rather than growth-centered. For governments, scholars, and legislators looking to create a more just future, it offers a helpful foundation.

To ensure a coherent flow of analysis and discussion, this study is divided into five main sections. The research goals, and significance are introduced in the first section, which also emphasizes the significance of evaluating the developments in human capability in South Asian nations. Drawing from prior research and theoretical viewpoints on human development, the Human Capabilities Approach, and comparative regional analysis, the second section provides an extensive assessment of the relevant literature. The research methodology, including data sources, indicator selection, the creation of the Comparative Human Capabilities Index, and the analytical methods used, is described in the third section. With the help of tables, figures, and trend analysis, the fourth section presents and analyzes the findings, comparing trends across nations using six important indicators: GDP per capita, GDP per person employed, GDP per capita, GDP per gross domestic savings, trade, life expectancy, and secondary school enrollment. The conclusion, policy implications, and recommendations are presented in the last section, which also summarizes important findings and offers suggestions for improving human capital development and minimizing inequalities throughout South Asia.

2 Literature Review

Over time, our understanding of how human capital contributes to economic development has changed. It started out with a limited focus on GDP and income. It now highlights the wider range of human talents. The capability approach was developed by scholars such as Amartya Sen. According to Sen (1992), growth entails the expansion of human liberties. Growth in income is not the only factor. Sen's research altered how we quantify progress. It placed value on people's abilities and qualities. Romer (1993) also emphasized the importance of innovation and ideas. He maintained that nations develop via the creation and application of knowledge.

Human capital thresholds are necessary for development, according to Azariadis and Drazen (1990). Countries may become trapped in low-growth traps if this isn't done. Development thought changed as a result of these concepts. These days, social inclusion, health, and education are all part of economic development. A Human Capability Index was created by Mine and Cinar (2015). They adhered to Sen's model. Their efforts aided in the transition away from GDP-based development. They demonstrated that skills are more important than assets. Global objectives like the SDGs are now based on this concept.

Chakravorty (2012) concentrated on the quality of schooling. It must align with the demands of the labor market, he said. More schools are insufficient on their own. In South Asia, this is significant. Many schools fail to educate students for real-world careers. Health is also a component of human capital. Neagu (2011) demonstrated that production is increased by health. Work capacity is diminished by poor health. In 2015, Iontsev and Magomedova examined demographics. They discovered that the labor supply is impacted by aging and unequal growth. Developmentally, this is important. In 2013, Liana and Noja conducted research on migration. They claimed that human capital is impacted by migration.

Brain drain might be painful, but remittances are beneficial. Beine et al., (2008) presented a fair assessment. Knowledge may also return home as a result of brain drain. It can encourage study and investment. Regional patterns were explored by Florida et al., (2008). They discovered that growth is a result of both talent and tolerance. Areas with innovative residents have faster growth. In the EU, Laskowska and Dańska-Borsiak (2016) verified this. Higher GDP is associated with tertiary education. In 2016, Bakirbekova and Konys examined innovation. They said that local progress is driven by skilled labor. This clarifies South Asia's regional disparities. Despite having comparable resources, some states grow more quickly. Trade openness is also important. The growth rate of open economies is higher, according to Edwards (1998). However, they need to make human capital investments.

Elmawazini et al., (2013) conducted research on technology transfer. Educated workers are better at using new technology, they added. If employees are trained, foreign companies can assist. Resource dependence was cautioned about by Gylfason (2001). Resource-rich nations risk stagnation without education. For some regions of South Asia, this is accurate. Long-term growth may be harmed by short-term resource gains. We need to measure development more accurately. According to Appleton and Teal (1998), literacy numbers overlook important details. A superior model was put forth by Mustafin and Ignateva (2016). They blended quantity and quality. According to Tamura (2002), developing countries require better and more education.

Diana (2013) concurred. "Human capital is a long-term asset," she remarked. All of these researches indicate a single need. Human progress needs to be better measured. The Comparative Human Capabilities Index was developed for this reason. It encompasses employment, health, education, and income. It depicts growth in its entirety. This wider perspective is needed in South Asia. The population of the area is young. It is also very unequal. This is hidden by GDP alone. The CHCI aids in displaying the actual level of development. It expands upon established indications. It monitors life expectancy and school enrollment. It illustrates how people are impacted by trade and jobs. This change is supported by the literature. Human capital is more than a mere instrument. That in itself is a goal.

3 Data and Methodology

With the use of a recently developed Comparative Human Capabilities Index (CHCI), this study seeks to quantify the connection between economic development and human capital in South Asian nations. Amartya Sen's capability approach, which stresses people's actual freedoms and opportunities to lead meaningful lives, serves as the foundation for the index.

3.1 Data Source

All data used in this study were obtained from the World Bank's World Development Indicators (WDI) database. The analysis covers eight South Asian countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. The time frame for data collection spans from 2001 to 2015, depending on data availability across countries.

3.2 The Comparative Human Capabilities Index (CHCI)

The CHCI is a composite index that incorporates six essential variables chosen to reflect aspects of human and economic development:

1. The average economic output per person is reflected in GDP per capita.
2. Gross Domestic Savings measures the economy's financial stability and investment potential.
3. Trade as a percentage of GDP is an indicator of economic openness and integration.
4. Life Expectancy at Birth is general health and medical quality.
5. Access to and involvement in formal education are measured by gross secondary school enrollment.
6. GDP per Person Employed is workforce efficiency and labor productivity.

CHCI=1/6 (GDP per Capita) + 1/6 (Gross Domestic Saving) + 1/6 (Trade) + 1/6 (Life Expectancy) + 1/6 (Secondary School Enrollment) + 1/6 (GDP per person employed).....…..(1)

To calculate Comparative Human Capabilities Index used another index which is component indicator index. This index converts all values into a standard scale ranging from 0 to 1, zero indicate less development and one indicate highest development (Yilmazer & Cinar, 2015).

This is;

CII= (current value - minimum value) / (maximum value - minimum value)…… (2)

3.3 Software Used

The analysis was conducted using Microsoft Excel and SPSS. Data cleaning, index construction, and visualization were completed in Excel, while statistical analysis was carried out in SPSS.

4 Results and Discussion

Human development in South Asian nations has improved significantly and steadily between the first and last time periods, according to the Comparative Human Capabilities Index (CHCI) data. Because to its significant investments in health, education, and job productivity, the Maldives continuously ranks as the best-performing nation as shown in (table 1). Additionally, Sri Lanka consistently maintains high competence scores throughout time. Bangladesh has impressive growth in human capital, going from extremely low values (0.04) to high competence levels (0.85). India's long-term growth in health, work, and education is highlighted by its notable improvement over time, which starts at the lowest point (0.00) and ends at (0.84). Pakistan also exhibits consistent growth, although more slowly than its neighbors. Bhutan's performance has been steadily improving in recent years. Afghanistan and Nepal score poorly at first but make significant strides later on, especially in life expectancy and education. The above observations imply that South Asian nations are making significant advancements toward enhancing their human potential in spite of structural and economic obstacles. The region's move towards more inclusive and people-centered development is reflected in the overall increase in CHCI scores, demonstrating the critical role that human capital expansion plays in long-term economic progress.

Table 1
Results of Comparative Human Capabilities Index

Year	Bangladesh CHCI	Afghanistan CHCI	Bhutan CHCI	India CHCI	Nepal CHCI	Maldives CHCI	Pakistan CHCI	Sri Lanka CHCI
2001	0.04	0.2	0.18	0	0.27	0.31	0.19	0.3
2002	0.15	0.28	0.19	0.04	0.12	0.36	0.24	0.34
2003	0.15	0.35	0.23	0.11	0.11	0.43	0.36	0.36
2004	0.16	0.38	0.28	0.25	0.27	0.34	0.38	0.44
2005	0.22	0.28	0.26	0.33	0.29	0.17	0.51	0.46
2006	0.32	0.4	0.53	0.41	0.24	0.56	0.53	0.46
2007	0.35	0.4	0.45	0.55	0.3	0.68	0.56	0.48
2008	0.33	0.44	0.52	0.56	0.41	0.72	0.56	0.45
2009	0.44	0.45	0.51	0.59	0.45	0.63	0.52	0.44
2010	0.5	0.6	0.66	0.71	0.6	0.7	0.53	0.43
2011	0.59	0.68	0.77	0.77	0.7	0.7	0.58	0.61
2012	0.68	0.74	0.83	0.79	0.67	0.66	0.59	0.75
2013	0.78	0.8	0.64	0.8	0.74	0.69	0.67	0.74
2014	0.88	0.74	0.75	0.84	0.86	0.75	0.68	0.73
2015	0.85	0.67	0.75	0.81	0.81	0.88	0.69	0.73

These results highlight that;

South Asia's human capital has increased, yet the pace of improvement is still unequal. In terms of capability growth, the Maldives continuously performs better than others. India's level of human development is lower than that of smaller countries, not standing with its size. Over time, Bhutan and Sri Lanka exhibit significant and consistent progress. Afghanistan began at a poor point but has made great progress. Pakistan has proven resilient, but it still needs to close its health and education imbalances. In recent years, Bangladesh has made impressive progress. Nepal exhibits uneven development, which suggests systemic issues. In South Asia, regional differences continue to be a major concern. Education reforms must be commensurate with trade and employment benefits. Hidden disparities that GDP overlooks are captured by the CHCI. Balanced investment is associated with better success across all metrics. In certain nations, early-stage progress has halted recently. Two important factors driving growth are innovation and postsecondary education. South Asia needs to match educational output with labor markets.

In several countries, low secondary enrollment continues to lower capacity scores. In many instances, gains in life expectancy have fueled the expansion of capabilities. Human capital formation can be accelerated through greater gender inclusion. The Maldives' consistently excellent ratings demonstrate their significant human capital investment. Growth in human capital is not exclusively correlated with GDP performance. With the right policies, small countries like Bhutan can outperform larger economies. Although evident, Pakistan's advantages require further development and consolidation. India needs a reassessment since its neighbors are growing their capabilities faster than it is. The Maldives is a model for developing human capital in a sustainable way. Deeply ingrained policy disparities are reflected in capability gaps.

Nowadays, the key determinant of regional competitiveness is human capital. Gains in one area may be counterbalanced by poor performance in another. High performers have one thing in common: effective governance. Long-term planning is advantageous for nations with steady upward tendencies. Human potential will be more important to future progress than natural resources.

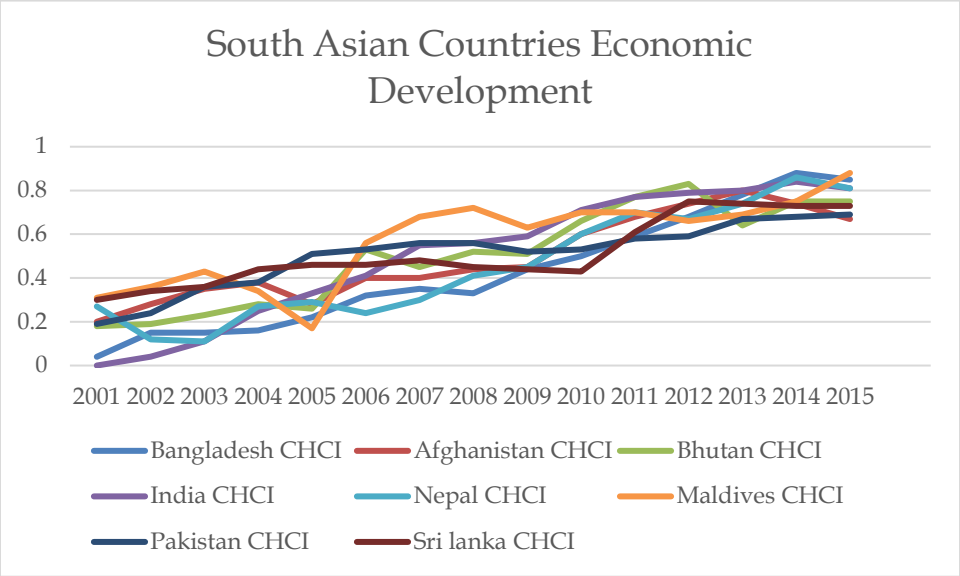

Figure 1
Trends in South Asian Countries Economic Development

On the basis of above result (Fig.1) depicts the trend in economic development of South Asian countries.

- The CHCI values for all nations exhibit an overall rising trend, suggesting progress over time.
- The countries with the highest CHCI levels were Bangladesh (0.852), India (0.817), Nepal (0.811), and the Maldives (0.888) in 2015.
- There were few declines and steady growth tendencies in Bangladesh, India, and Nepal.
- Afghanistan experienced a robust increase following 2010, while the Maldives experienced a notable increase between 2006 and 2007.
- Pakistan and Sri Lanka both experienced growths, but at slower rates than the others.
- In 2001, India's value was the lowest (0.0087), but by 2015, it had much improved.

5 Conclusion and Recommendations:

According to the study, human skills have advanced significantly in South Asian nations throughout time. Even historically underperforming nations like Afghanistan and Nepal have showed encouraging improvements, while nations like the Maldives and Sri Lanka continuously perform at high levels. Other nations like India, Bangladesh, and Pakistan have also shown constant growth. All things considered, the growing Comparative Human Capabilities Index (CHCI) shows a favorable trend toward people-centered development and emphasizes how important work, education, and health are to long-term economic progress.

These are following policies recommendation:

- Invest in Human Capital: Healthcare and education ought to be top priorities for governments. Countries may create a strong basis for sustainable growth by expanding access to high-quality education and bolstering health care.
- Boost Labor Productivity: Policies that encourage workers to adopt new technologies, enhance their skills, and be creative can increase economic output and productivity.

- Encourage Inclusive Economic measures: Make sure that development benefits are shared equitably by enacting measures that assist marginalized populations. More balanced progress can be made by advancing gender equality and fortifying social safety nets.
- Promote Regional Cooperation: By exchanging resources and best practices, South Asian nations may work together to address shared challenges and boost human skills more quickly.

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