



## **HUMAN CAPITAL INDEX RANKINGS 2013 FOR ASIA AND PACIFIC COUNTRIES AND EVALUATION OF HUMAN CAPITAL INDICATORS FOR PAKISTAN**

**Muhammad Bashir**

*Pakistan Council for Science and Technology, Shahrah-e-Jamhuriat, Islamabad, Pakistan*

### **ABSTRACT**

*This paper presents Human Capital Index Rankings for 20 Asia and Pacific Countries. The Human Capital Index (HCI) developed by the (World Economic Forum) assesses 122 countries, representing over 90% of the world's population. The Human Capital Index (HCI) measures the countries on their ability to develop and deploy healthy, educated and able workers through 4 pillars: education, health & wellness, workforce & employment and enabling environment. The Index consists of 51 indicators in total, spread across the 4 pillars. The Education pillar contains 12 indicators relating to quantitative and qualitative aspects of education across primary, secondary and tertiary levels and contains information on both the present workforce as well as the future workforce. The Health and Wellness pillar contains 14 indicators relating to a population's physical and mental well-being, from childhood to adulthood. The Workforce and Employment pillar having 16 indicators is designed to quantify the experience, talent, knowledge and training in a country's working-age population. The Enabling Environment pillar with 9 indicators captures the legal framework, infrastructure and other factors that enable returns on human capital. Singapore was ranked 3rd in the Human Capital index Ranking 2013 and was the only Asian country in the top 10. Japan (15) ranked the next highest after Singapore. These countries are followed by Malaysia (22), Korea (23), China (43) and India (78). Pakistan ranked 112th out of 122 countries in the World Economic Forum's Human Capital Index. Pakistan ranked 111th in the education pillar, with regard to health and well-being pillar, the country's ranking was 115th. For workforce and employment pillar, Pakistan's ranking was 104th, and for enabling environment, it ranked 95th.*

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## 1. INTRODUCTION

A nation's human capital endowment—the skills and capacities that reside in people and that are put to productive use—can be a more important determinant of its long term economic success than virtually any other resource. This resource must be invested in and leveraged efficiently in order for it to generate returns, for the individuals involved as well as an economy as a whole. Additionally, despite high unemployment in many countries, the global economy is entering an era of talent scarcity that, if left unaddressed, will hinder economic growth worldwide. Understanding and addressing challenges related to human capital is thus fundamental to short term stability as well as the long term growth, prosperity and competitiveness of nations. The Human Capital Index from The World Economic Forum, developed in collaboration with Mercer, shows 122 countries — representing more than 90% of the world's workforce — are setting the standard for workforces that are best positioned to contribute to economic success. The Index takes into consideration 51 factors in four categories: education, health and wellness, workforce and experiences, and critical enablers such countries' infrastructure and legal environments. The Human Capital Index explores the contributors and inhibitors to the development and deployment of a healthy, educated and productive labour force. The Index provides country rankings that allow for effective comparisons across regions and income groups. The methodology and quantitative analysis behind the rankings are intended to serve as a basis for designing effective measures for workforce planning. The Human Capital Index seeks to create greater awareness among a global audience of human capital as a fundamental pillar of the growth, stability and competitiveness of nations. This Index is a first attempt at measuring human capital holistically and across a large set of countries. The Index seeks to serve as a tool for capturing the complexity of workforce dynamics so that various stakeholders are able to take better-informed decisions. Because human capital is critical not only to the productivity of society but also to the functioning of its political, social and civil institutions, understanding its current capacity is valuable to a wide variety of stakeholders. This index can help governments, business, universities and civil society institutions identify key areas for focus and investment. All of these entities have a stake in human capital development, whether their primary goal is to power their businesses, strengthen their communities, or create a population that is better able to contribute to and share in the rewards of growth and prosperity. This index will also foster collaboration between sectors to address human capital gaps.

## 2. DEFINITION OF HUMAN CAPITAL

The formal concept of human capital was developed in the 1960s by a group of economists associated with the University of Chicago although the idea that investment in education has a long-term economic and social payoff for the individual and society at large goes back to Adam Smith if not earlier. Human capital is defined as the aggregation of investments in such areas as education, health, on-the-job-training, and migration that enhance an individual's productivity in the labour market, and also in non-market activities. Some definitions of human capital include the innate abilities as well as the knowledge and skills that individuals acquire throughout their lifetimes. It is argued that since the number of skills individuals acquire through their lifetime

depends partly on their initial abilities, this potential is an important aspect of the human capital concept identify five aspects or characteristics of human capital that merit attention. They are: a) human capital is a non-trade able good embodied in human beings, although the flow of services generated by human capital is marketed; b) individuals, particularly the young, do not always control the channel or pace by which they acquire human capital; c) human capital has a qualitative as well as a quantitative aspect reflecting the quality of the educational inputs; d) human capital can be either general in nature or specific to a firm or sector; and e) human capital generates individual and social externalities.

### 3. MEASURING HUMAN CAPITAL

The Human Capital Index is a new measure for capturing and tracking the state of human capital development around the world. It has three key features.

First, the Index measures a broader set of indicators than the traditional definitions of human capital. Human capital is not a one-dimensional concept, but means different things to different stakeholders. In the business world, human capital is the economic value of an employee's set of skills. To the policy maker, human capital is the capacity of the population to drive economic growth. Traditionally, human capital has been viewed as a function of education and experience, the latter reflecting both training and learning by doing. But in recent years, health (including physical capacities, cognitive function and mental health) has come to be seen as a fundamental component of human capital. Additionally, the value of human capital is critically determined by the physical, social and economic context of a society, because that context determines how particular attributes a person possesses may be rewarded. The Index is thus based on four pillars: three core determinants of human capital (education, health and employment) plus those factors that allow these three core determinants to translate into greater returns.

Second, the Index takes a long-term approach to human capital. In addition to providing a snapshot of the state of a country's human capital today through measures that reflect the results of a country's past practices, it includes indicators resulting from practices and policy decisions impacting the children of today and which will shape the future workforce. Long-term thinking around human capital often does not fit political cycles or business investment horizons; but lack of such long term planning can perpetuate continued wasted potential in a country's population and losses for a nation's growth and productivity. The Index seeks to develop a stronger consciousness around the need for such planning.

Third, the Index aims to take into account the individual life course. For example, the WHO states that "early childhood is the most important phase for overall development throughout the lifespan," elaborating that "many challenges faced by adults, such as mental health issues, obesity, heart disease, criminality, and poor literacy and numeracy, can be traced back to early childhood." The Index thus includes measures indicating quality of early childhood. Furthermore, the Index captures the extent to which investments made in earlier years in health and education are being realized in the working age population through lifelong learning and training. Finally, at the other

end of the continuum, the Index takes into account the health and productivity of the older population.

#### **4. PILLARS OF HUMAN CAPITAL INDEX**

The Index contains 51 indicators in total, spread across the four pillars, with 12 indicators in the Education pillar, 14 in the Health and Wellness pillar, 16 in the Workforce and Employment pillar and 9 in the Enabling Environment pillar. The four pillars and indicators of the Index are:

**4.1. Pillar 1: Education** The Education pillar captures several dimensions of education—access to education and quality of education, impacting the future labour force, and the educational attainment of those already in the labour force.

**4.1.1. Access to education:** Access to education for today's children and youth—the future workforce—is captured using net adjusted enrolment rates for primary and net enrolment rates for secondary school, as well as through gross tertiary enrolment ratios and a measure of the education gender gap. The net enrolment ratios capture all children who are enrolling at the right age for that school level. Social, in addition to economic, marginalization still denies education to many. Education sub-index from the World Economic Forum's Global Gender Gap Report, which measures the gap between females' and males' access to the three selected stages of education, is included in this pillar as an indicator of educational inclusion.

**4.1.2. Quality of education:** Although access measures show exposure to learning, they do not capture the quality of these learning environments. A third of the Education pillar thus comprises qualitative indicators, such as the quality of primary education, quality of math and science instruction, the quality of management schools, the level of access to the Internet in schools and the quality of the education system overall for meeting the needs of a competitive economy.

**4.1.3. Educational attainment:** Included in this sub-pillar are three measures of educational attainment to capture the percentage of the population (aged 25 and over) who have achieved at least primary, lower secondary or tertiary education.

#### **4.2. Pillar 2: Health and Wellness**

The Health and Wellness pillar captures how various socio-cultural, geographical, environmental and physiological health factors impact human capital development. Based on a life-course approach, it includes early development indicators, that are predictive of the health of the future workforce, and communicable and non-communicable disease indicators that impact the productivity and capacity of the current labour force.

**4.2.1. Survival:** A fundamental determinant of human capital is the survival of its population. In the crudest terms, longer lives equal more productive years per capita, but are also a strong indicator of the overall health and living conditions of a population. This sub-pillar includes a simple measure of average life expectancy across the population, infant mortality and the health parity sub-index from the World Economic Forum's Global Gender Gap Index.

**4.2.2. Health:** The state of physical health of the population is captured in the Health sub-pillar, focusing on both children and adults. The first few years of infancy are critical for a child;

nutritional deficiencies and disease at this age may impede the child's physical and cognitive development so that he or she is unable to reach his or her productive potential in adulthood. Early development indicators of long-term cognitive and physical impairment include an average of stunting (refers to low height-for-age, when a child is short for his/her age but not necessarily thin; a results of chronic malnutrition) and wasting (refers to low weight-for-height where a child is thin for his/her height but not necessarily short; a result of acute malnutrition) in children under five.

The Health sub-pillar also seeks to capture the years spent in poor health in the adult, working age population by measuring the difference between this life expectancy and the number of years that a person can expect to live in "full health" without disease and/or injury. Non-communicable diseases (NCDs) kill more than 36 million people each year, a quarter of who die before the age of 60. We capture these losses through a measure of the proportion of the population under 60, (i.e. the population that is normally considered of economically active age), that dies 'prematurely' from NCDs. In addition, NCDs as well as communicable diseases have adverse effects throughout the life course. The Health sub-pillar includes five measures of NCDs, and their impact on business. These comprise: heart diseases, cancer, mental illness, diabetes and chronic respiratory disease. These groups of five NCD indicators, which measure the seriousness of their impact on business, together contribute a single weight to the 'Average business impact of non-communicable diseases' composite indicator. In addition, the following three communicable diseases: HIV, tuberculosis and malaria combined, carry a further single weight for the 'Average business impact of communicable diseases' indicator.

In 2008, there were more than 1.4 billion adults in the world overweight, and more than half a billion globally obese (having a body mass index of equal to or greater than 30). More of the world's population is killed through being overweight than underweight today. Obesity causes lost productivity and is a substantial burden on the health resources of a nation. We thus include a measure of BMI for the adult population.

**4.2.3. Well-being:** The WHO estimates that the impact of mental health illnesses costs developed countries between three and four percent of GNP annually. Depression is ranked as the leading cause of disability worldwide. While many cases go unreported due to lack of access to care or stigma, this sub-pillar comprises two perception-based indicators reporting experiences of depression and stress. This means that the data is not reflective of those who have received a medical diagnosis for stress or depression, but is a measure from a sample population who have experienced what they understand to be feelings of stress or depression.

**4.2.4. Services:** This sub-pillar includes three additional indicators that provide a broad view of the quality of healthcare and access to healthcare services. The qualitative measures of quality and access to healthcare were chosen because they are more closely related to individual health than are measures of expenditures on healthcare infrastructure. The final indicator in the sub-pillar measures the use of improved drinking water sources and improved sanitation facilities, which can reduce illnesses leading to loss of productivity and absenteeism.

### 4.3. Pillar: 3 Workforce and Employment

There are no standard, internationally comparable datasets that directly measure skills, talent and experience despite agreement among governments, academia and business leaders that these should be measured. Therefore, the Index relies on a number of proxy variables to seek to provide an aggregate measure for quantitative and qualitative aspects of the labour force. The Workforce and Employment pillar combines labour force participation rates to measure how many in a country are gaining experience in the workforce with indicators of the level or quality of experience gained.

**4.3.1. Participation:** This sub-pillar measures how many people are able to participate actively in the workforce as well as how successfully particular sectors of the population are able to contribute (women, youth and those aged over 65). In addition to labour force participation rates for those aged 15–64, this sub-pillar includes a measure of the gender gap in economic participation—whether an economy is leveraging both halves of its human capital pool or not impacts the aggregate accumulation of experience. We have also included an indicator representing labour force participation of the over 65's. From a human capital stock perspective, a low labour force participation rate for the “silver” workforce is treated as undesirable but is particularly negative for those countries with long, healthy life expectancies that face ageing populations and shrinking workforces. Further information on statutory retirement ages is included in each country's profile. Unemployment rates for both the youth and adult population are included. These indicators capture a subset of those in the economy who are in the labour force and are actively looking for and are available for work, and exclude those who are outside of the labour force, i.e. are not working nor looking for work. We include both adult and youth unemployment because of its greater multiplier effects in the future. With youth unemployment worsening globally and with young people more than three times more likely to be unemployed than adults, the ILO warns of a “scarred generation” and that “youth unemployment and underemployment impose heavy social and economic costs, resulting in the loss of opportunities for economic growth [...] and unutilized investment in education and training.”

**4.3.2. Talent:** This sub-pillar contains several concepts to capture a broad, aggregate measure of talent. First, it contains a high-level measure of the average level of experience in an economy in the form of the median age of the working age population (15–64). Second, it integrates business leaders' assessment of their countries ability to attract and retain talent, of their companies' ability to find skilled employees and of the existence of merit-based rewards for employees. Third, it assesses whether the talent available in a country leads to economic results in the form of production, learning within firms, innovation and knowledge generation, captured through the Index of Economic Complexity—countries that make sophisticated products must possess the skills and expertise to do so—two survey variables on firm level technology absorption and capacity for innovation, and the prevalence of scientific and technical journal articles.

**4.3.3. Training:** Two quantitative indicators serve as a proxy for continued training and learning. The extent of staff training indicator measures the extent to which companies invest in training and employee development and the training services indicator measures the extent to which high-quality specialized training services are available.

#### **4.4. Pillar 4: Enabling Environment**

The indicators included in this pillar capture whether human capital is deployed effectively or whether barriers in the environment are preventing the effective use of human capital, thereby negating the investments made in human capital development.

**4.4.1. Infrastructure:** This sub-pillar looks at three basic aspects of physical and communication infrastructure as facilitators of human capital. Physical transport, which facilitates access to workplaces and is critical to connecting industry and communities together, is measured through a survey indicator on the quality of domestic transport. The use of ICT, such as mobile phones and the Internet, can also accelerate communication and exchange across the complex networks that underpin human capital growth. These are captured through prevalence indicators for mobile phones and Internet use, respectively.

**4.4.2. Collaboration:** Cross-industry and cross-sector learning facilitate innovation, information exchange and the development of human capital. These concepts are captured through two survey indicators from the Executive Opinion Survey. We include a measure of the extent to which universities and industry collaborate on R&D. We also include a measure of how prevalent are well-developed and deep clusters.

**4.4.3. Legal framework:** This sub-pillar looks at the legal environment within which people are employed self-employed. In particular, we include the ease of doing business in a country, using the World Bank's Doing Business Index, which looks at how conducive the legal and regulatory environment is to starting and operating a local business. The protection of both physical property and intellectual property is important from a human capital perspective as it protects the knowledge—the intangible assets—of an individual as well as the assets connected with that knowledge. This is measured through a combination of two survey variables. We also include in this sub-pillar social safety net protection for its role in preserving skills and knowledge and reducing the attrition on human capital.

**4.4.4. Social mobility:** Finally, we include a measure of rigid socio-cultural practices that may thwart progress in human capital development despite investments through policy instruments. The opportunity for an individual to transcend social strata may be a significant motivational factor for investment in their own and their offspring's human capital development. Therefore in countries where status is ascribed rather than achieved, the incentive for investing in human capital is reduced.

### **5. HUMAN CAPITAL INDEX RANKINGS FOR ASIA AND PACIFIC COUNTRIES**

The World Economic Forum's first Human Capital Index has identified the most successful countries in the world when it comes to maximizing the long-term economic potential of their respective labour forces. The Index, which measures countries on their ability to develop and deploy healthy, educated and able workers through four distinct pillars: Education; Health and Wellness; Workforce and Employment; and Enabling Environment.

The region has a diverse spread of wealth, comprising five of the sample’s high-income economies, four upper-middle income, nine lower-middle economies as well as Bangladesh and Cambodia, two low-income countries. As a region, Asia ranks third overall, behind North America and Europe and Central Asia. Singapore (3) is the highest ranked of the region’s countries and the only country from the region in the top ten. Singapore’s excellent rank is due to its very strong scores on the Education and Workforce and Employment pillars, and good scores on Enabling Environment. Exceptionally strong scores across the qualitative education indicators and the high level of tertiary education among the adult population drive up its Education pillar ranking. Strengths on the Enabling Environment’s Collaboration and Legal framework sub-pillars include a top rank on the Doing Business Index. The Health and Wellness pillar is weakened mainly due to the burden of disease in the country. Despite the Enabling Environment being New Zealand’s (12) weakest pillar at 18th, the country also performs very well in some aspects, with top ten ranks across the Legal framework sub-pillar and a rank of 3 in Social mobility. New Zealand’s strengths in Education are similar to those of Singapore, but it ranks lower in the qualitative talent indicators on the Workforce and Employment pillar, including a particularly low rank (69) for the ability of the country to retain talent, or the ‘brain drain’ indicator. Japan’s (15) strong performance in Health and Wellness is due to excellent scores in the Health and the Survival sub-pillars. Top rankings for life expectancy and years lived in good health help drive the strong rankings. Japan’s training indicators on the Workforce and Employment pillar are also strong, with top ten rankings. Enrolment rates in secondary education rank at the top while the Primary enrolment indicator gives Japan third place. However Japan’s relatively weaker spots in the Index include gender gap indicators for education and the workforce, the country’s ability to attract talent, and reported depression in the Well-being sub-pillar.

**Table-1.** Human Capital Index Rankings for Asia and Pacific Countries

Index	Overall Index		Education		Health and Wellness		Workforce and Employment		Enabling Environment	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Singapore	3	1.232	3	1.348	13	0.762	2	1.345	5	1.471
New Zealand	12	0.978	5	1.204	15	0.743	17	0.804	18	1.163
Japan	15	0.948	28	0.628	10	0.836	11	1.027	13	1.302
Australia	19	0.831	13	0.988	18	0.663	19	0.675	23	0.999
Malaysia	22	0.644	34	0.526	39	0.301	18	0.736	22	1.014
Korea. Rep.	23	0.640	17	0.899	27	0.481	23	0.596	30	0.582
China	43	0.186	58	0.069	65	0.010	26	0.516	47	0.147
Thailand	44	0.158	79	-0.242	40	0.281	27	0.482	48	0.112
Sri Lanka	50	0.020	51	0.172	35	0.323	62	-0.127	70	-0.288
Indonesia	53	0.001	61	0.040	84	-0.215	32	0.262	58	-0.082
Philippine	66	-0.161	65	0.011	96	-0.473	38	0.164	78	-0.344
Vietnam	70	-0.202	73	-0.176	88	-0.291	57	-0.040	73	-0.302
India	78	-0.270	63	0.020	112	-0.868	49	0.005	67	-0.239
Lao PDR	80	-0.297	83	-0.320	91	-0.407	59	-0.097	80	-0.364
Bhutan	88	-0.370	89	-0.498	83	-0.208	74	-0.231	85	-0.545
Mongolia	89	-0.400	76	-0.198	80	-0.139	106	-0.610	92	-0.651
Iran	94	-0.487	68	-0.051	87	-0.274	119	-1.059	88	-0.564
Cambodia	96	-0.505	99	-0.839	102	-0.596	42	0.104	93	-0.688
Bangladesh	110	-0.782	104	-0.959	104	-0.606	103	-0.543	110	-1.019
Pakistan	112	-0.837	111	-1.166	115	-0.920	104	-0.545	95	-0.718

Australia (19) and Malaysia (22) have almost identical scores on the Workforce and Employment and Enabling Environment pillars, but their performance within the pillars varies. Australia ranks poorly on its labour force participation of those over the age of 65, whereas Malaysia, the highest of the region's upper-middle income countries, ranks very low for the Economic participation gender gap indicator. Malaysia performs well on most of the qualitative talent and training indicators in the Workforce and Employment pillar. Australia performs well on the majority of indicators in Enabling Environment, in particular those concerning the legal framework. Australia also performs well on the Educational attainment of the population over 25 indicators. The Republic of Korea (23) has its strongest performance on the Education pillar, with a rank of 17. Korea's enrolment rates for tertiary education take the top spot overall and the educational attainment of the adult population has consistently strong ranks. Despite good scores across the qualitative indicators, overall Quality of the education system was particularly low at 52nd position. Korea's scores on the Enabling Environment pillar are pulled down by low scores on the Social mobility and Social safety net protection indicators. Korea also has a notably low score on the Business impact of non-communicable diseases indicator, in the Health and Wellness pillar. China's (43) positions across the four pillars vary greatly from the 26th rank on the Workforce and Employment pillar to 65th on the Health and Wellness pillar, the latter due in part to weak scores across the Health and Services sub-pillars. China's overall scores are boosted by good performance on the Talent sub-pillar of indicators, such as the Attraction and Retention of talent. The country's highest scores are from the Labour force participation of the 15 to 64 age group and Pay relating to productivity measures indicators. Thailand (44) also has a hugely varied distribution of rankings across the pillars, ranging from 27th on Workforce and Employment to 79th in Education. Thailand ranks 94th on the Enrolment in primary school indicator, and the majority of the education indicators are in the bottom half of the sample countries.

Thailand's very low levels of unemployment yields two top-five rankings for these indicators. Good performances on the qualitative talent indicators are also strong points. Sri Lanka's (50) scores are boosted by good performances on the Health and Wellness pillar, but it performs poorly on the labour force participation indicators (103). India (78) performs well on the Workforce and Employment pillar (49) while holding only 112th position for Health and Wellness. India's high prevalence of stunting and wasting, low scores in sanitation and hygiene and second-to-bottom rank on the health gender gap indicator are some of the variables driving down the scores for India. India's Collaboration sub-pillar scores boost its ranking on the Enabling Environment pillar. Indonesia's (53) ranks vary between 32nd on the Workforce and Employment pillar to 84th on the Health and Wellness pillar. A relatively low unemployment rate and good labour force participation of the over 65s, as well as a good performance on some of the qualitative talent indicators, support Indonesia's strong overall performance on the Workforce and Employment pillar. Paradoxically, the country's strongest performance overall is on the Well-being sub-pillar, with top and second rankings for the Depression and Stress indicators respectively. The Philippines (66) follows a similar profile to Indonesia with a 38th ranking on the Workforce and Employment pillar and 96th on Health and Wellness. The Philippines has top scores for the education and health

gender gap indicators as well as a strong 15th rank for economic participation. Ranks below 100 on Well-being sub-pillar indicators pull down the aggregate Health and Wellness scores. Vietnam holds 70th position and Lao PDR holds 80<sup>th</sup> position. Bhutan's (88) strong labour force participation and in particular low unemployment rates drive strong scores on the Workforce and Employment pillar. However, weak scores in technology absorption and training pull down the overall ranking to 74th spot. Mongolia's (89) lowest performance is on the Workforce and Employment pillar, where the country scores 106th. Although Mongolia takes the top spot for the Economic participation gender gap indicator, Mongolia is in last position for the Training services indicator. Mongolia shows a stronger performance on the Education pillar where its primary and tertiary enrolment rates are both in the top 40 rankings. Iran (94) is the lowest of the upper-middle income economies represented in the Asia and Pacific region. Iran has a wide distribution of ranks across the four pillars, from 68th for Education to 119th for Workforce and Employment. Strong enrolment rates push up Iran's scores for the former pillar, whereas bottom five positions for the Economic participation gender gap and Labour force participation (15-64) indicators contribute to driving down the aggregate scores for the latter pillar. Cambodia (96) is followed by Bangladesh (110) and Pakistan (112).

## 6. EVALUATION OF HUMAN CAPITAL INDICATORS FOR PAKISTAN

Pakistan has been placed at a low 112<sup>th</sup> slot on a global Human Capital Index, which ranks countries on the basis of economic potential of their labour force. Pakistan was ranked 111<sup>th</sup> in the education pillar. On Education indicators, Pakistan does badly. For quality of math and science education, the country is ranked a lowly 87<sup>th</sup>. It comes in at 71<sup>st</sup> for quality of primary school. The country came 111<sup>th</sup> in terms of access to primary enrolment, 92<sup>nd</sup> in secondary enrolment and 103<sup>rd</sup> in tertiary enrolment. In addition, Pakistan ranked 80<sup>th</sup> in the internet access in school and 71<sup>st</sup> in the quality of the education system. In the health and wellness pillar, Pakistan ranked 112<sup>th</sup> in the index in relation to infant mortality per 1,000 live births, 95<sup>th</sup> in the life expectancy index and 106<sup>th</sup> in the survival gender gap and 110<sup>th</sup> for access to healthcare. The Pakistan ranked 88<sup>th</sup> in the index in relation to deaths over 60 from non-communicable diseases and 21<sup>st</sup> in the rate of obesity of adults, with body mass index over or equal to 30.

**Table-2.** Evaluation of Human Capital Indicators for Pakistan

<b>Pillar 1 and 2</b>	<b>Rank</b>	<b>Value</b>	<b>Pillar 3 and 4</b>	<b>Rank</b>	<b>Value</b>
<b>Access</b>			<b>Participation</b>		
Primary enrolment rate (%)	111	72	Labour force participation rate, age 15-64 (%)	108	54.9
Secondary enrolment rate (%)	92	35	Labour force participation rate, age 65+ (%)	37	30.4
Tertiary enrolment ratio (%)	103	8	Economic participation gender gap	118	0.310
Education gender gap	113	0.762	Unemployment rate (%)	31	5.5
<b>Quality</b>			Youth unemployment rate (%)	11	7.7
Internet access in schools	80	3.75	<b>Talent</b>		
Quality of the education system	71	3.49	Country capacity to attract talent	88	2.66
Quality of primary schools	97	2.94	Country capacity to retain talent	88	2.90
Quality of math & science education	87	3.40	Ease of finding skilled employees	67	3.86
Quality of management schools	63	4.27	Pay related to productivity	75	3.78
<b>Attainment</b>			Capacity for innovation	45	3.74

*Continue*

Primary education attainment (population age 25+)	(% 64)	45	Index of Economic Complexity	76	-0.44
Secondary education attainment (population age 25+)	(% 73)	32	Firm level technology absorption	71	4.60
Tertiary education attainment (population age 25+)	(% 74)	7	Scientific and technical journal articles (per 1,000 people)	86	0.006
<b>Survival</b>			Median age of the working population	97	30
Infant mortality (per 1,000 live births)	112	59	<b>Training</b>		
Life expectancy	95	67	Staff training	109	3.23
Survival gender gap	106	0.956	Training services	94	3.63
<b>Health</b>			<b>Infrastructure</b>		
Stunting and wasting (% in children under 5)	75	28.9	Mobile users (per 100 people)	109	62
Unhealthy life years (% of life expectancy)	103	18	Internet users (per 100 people)	106	9
Deaths under 60 from non-communicable diseases (%)	88	34.3	Quality of domestic transport	71	4.22
Obesity (% of adults with BMI $\geq 30$ )	21	5.9	<b>Collaboration</b>		
Business impact of non-communicable diseases	114	3.90	State of cluster development	56	3.95
Business impact of communicable diseases	100	4.37	Business and university R&D collaboration	86	3.25
<b>Well-being</b>			<b>Legal framework</b>		
Stress (% of respondents)	38	27	Doing Business Index	80	107
Depression (% of respondents)	113	28	Social safety net protection	109	2.55
<b>Services</b>			Intellectual property protection and property rights	101	3.12
Water, sanitation and hygiene (% with access)	93	69.2	<b>Social mobility</b>		
Healthcare quality	111	2.73	Social mobility	77	3.96
Healthcare accessibility	110	3.16			

In the workforce and employment pillar, Pakistan ranked 108<sup>th</sup> out of 122 countries in terms of labour force participation rate among the 15-65 age category, and 37<sup>th</sup> in the category of 65 years and above. Pakistan stood 31<sup>st</sup> place in the ranking that evaluates the unemployment rate and 11<sup>th</sup> in terms of youth unemployment. Pakistan was 37<sup>th</sup> in the ranking that analyses the participation of the workforce over age 65 years and 75 in the ranking which measures wages compared with productivity. In the fourth pillar, enabling environment, Pakistan ranked 109<sup>th</sup> in terms of mobile users per 100 people and 106<sup>th</sup> in terms of internet users per 100 people, collie in the quality of domestic transport, the country ranked 71<sup>st</sup> in the index.

## 7. CONCLUSION

The World Economic Forum has developed the Human Capital Index which ranks countries on the basis of the economic potential of their labour force. Human Capital Index is a new tool designed to measure how countries manage human capital endowments and the countries have been ranked on the basis of long term economic potential of their respective labour forces. The index measures countries on their ability to develop and deploy healthy, educated and able workers along four broad parameters-education, health and wellness, workforce and employment, and enabling environment. While India scores well on the parameter workforce and employment, it fare poorly on health and wellness. A nation's human capital endowment - productive skills and capacities - can be a more important determinant of long-term economic success than virtually any other resource. "The key for the future of any country and any institution lies in the skills and talent of its people,"

"In the future, human capital will be the most important kind of capital. Investing in people is not just a nice to have and it is imperative for growth, prosperity and progress".

Discussions about economic outlook tend to revolve around GDP growth. Human capital – people who keep the machine running – is seldom considered. In an attempt to assess how well countries around the world are making use of their respective work forces, the World Economic Forum has compiled the first-ever Human Capital Index. With the exceptions of Singapore, Japan and Australia – the Asia-Pacific region has some work to do. Ranked third of the 122 countries in the study, Singapore is the only state in the region to make it into the top 10. While Japan's performance is strong across Health and Wellness, the quality of education remains a persistent issue, particularly in management schools. Low levels of integration of the “silver workforce” are also a barrier. After Singapore and Japan, Asia's highest ranking countries are Malaysia (22) and Korea (23). China, at 43, benefits from low unemployment and high business perceptions of skill levels, but is held back by health measures, the quality of its legal framework and low levels of tertiary education in the current workforce. Thailand followed just behind in 44th, followed by Sri Lanka (50<sup>th</sup>), Indonesia (53<sup>rd</sup>), and the Philippines (66<sup>th</sup>), and Vietnam (70<sup>th</sup>). India came in at 73<sup>rd</sup>, followed by Pakistan at a dismal 112th.

“The key for the future of any country and any institution lies in the talent, skills, and capabilities of its people”. “By providing a comprehensive framework for benchmarking human capital, the index highlights countries that are role models in investing in the health, education, and talent of their people and providing an environment where these investments translate into productivity for the economy.” A nation that wishes to hone its populace into a more smoothly operating economic machine apparently needs to focus on four factors: health and wellness, education, workforce and employment, and fostering an “enabling environment” (infrastructure, legal framework, social mobility). Some countries score well in one or two categories but flounder in another – such as China, the world's largest economy that struggles with obesity and stress.

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