

## Analysis of Human Capital Development Index in Kano State

Dr. Nazifi Abdullahi Darma<sup>1</sup> Aigbedion I. Marvelous<sup>1</sup> Nafiu Bashir<sup>2</sup> Umar Abubakar kari<sup>3</sup>

1. Department of Economics, University of Abuja

2. Department of Economics, Bayaro University Kano (BUK)

3. Department of Sociology, University of Abuja

### Abstract

The study focuses on the analysis of human capital development index domesticated in Kano state, Nigeria. The main objective of this study is design human capital index and explores the contributors and inhibitors to the development and deployment of a healthy, educated and productive labour force in the state. The study covers the 44 local government areas and 122 wards of the State. Four key indicators were used for the design of human capital index in Kano State which are; level of education, health and wellness, workforce and employment and enabling environment. These indicators were analyzed using standardization method of ranking. From the index, some regions of the states have impressive and fair human capital index which are Northern Central, Eastern and North Western regions while some regions have poor ranking of human capital index in the State especially Far South, Western and Southern regions were most of the index were negative as per the defined indicators as captured by the level of education, health and wellness, workforce and employment and enabling environment. In view of these findings and low public sector resource availability, the study recommends that government should overhaul the financial management system in health and education towards attaining higher value for money in expenditure spent and enhance the ease of access for private providers of health and education services towards complementing that provided by the public sector and strengthen regulatory framework for effect supervision and quality standardization.

**Keywords:** Human Capital Development Index, Kano State, Health, Education

### Introduction

Human capital development has been identified not only as a major growth determinant and a channel to ease poverty but it is also very important in building or improving the quality of human beings in general (Sarah, Adam, Ben & Yelwa, 2015). The growth focus in Sustainable Development Goals (SDGs) is more concentrated at the importance in achieving clear and real progress as an indicator or human capital indicator measured through educational foundation. The status of human development in Nigeria has not shown remarkable improvement in spite of the changes in the social and economic conditions in recent years (UNDP, 2014). The social conditions can be explained by the trends in the political development and investments in the social sectors, particularly education and health. Education and health are the basic objectives of human capital development because they are important ends in themselves. Health is central to well-being, and education is essential for satisfying and rewarding life: both are fundamental to the broader notion of expanded human capabilities that lie at the heart of the meaning of development (Lawanson & Marimathu, 2009).

The Nigerian economy could be said to have enjoyed some macro-economic stability in the recent time as its rate of economic growth averaged 2.01 percent within the last two decades (World Bank, 2010). However, as a result of high and rapid growth rate of the population, per capita growth rate has remained negative and it averaged -0.852 in the last decade (World Bank, 2010). With her large reserves of human and natural resources, Nigeria has the potential to build a prosperous economy, reduce poverty significantly, and provide health care services, education, and infrastructural services that meets the needs of her population. However, despite the country's relative oil wealth, poverty is widespread and Nigeria's basic social indicators place her among the twenty poorest countries in the world (World Bank, 2014).

Similarly, Poverty in the North-West zone, where Kano State is located, is comparatively higher than in the Southern part of the country. Generally, the North West zone has the highest poverty rate of 77% followed by a rate of 70% in North East. These rates are all higher than the rates in the Southern parts of the country. The North also has the worst educational indicators, with literacy levels, school enrolment and retention rates decreasing the further one moves to the northern border of the country. The female literacy rate in the South East is almost three time higher than the rates of 21% in the North East zone and 22% in the North West zone while the male literacy rate of 74% in both the South East and South West zones is 1.7 times the rates in the Northern zones. Illiterate and without economic power, women are excluded from decision making in critical areas of health and education of the household (KNSHDP, 2010).

Despite the effort of the government in the Kano State to improve the human capital development, most schools and health care centres in the state are characterized by overcrowding, poor sanitation, poor management, low students-teachers' ratio, low doctors-patients ratio, poor teachers and health workers' remunerations and welfare packages. Other features are to include abandoned capital projects, inadequate funding, poor condition of

service and others, (FRN, 2000). On this note, this study intends to examine and domesticate human capital development index in Kano State. 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 human capital indicators ranking, which in our report represents all the entire local government in Kano state.

This index provides the ranking 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. While the rankings are designed to create greater awareness among and between policy makers in Kano state, wider audience both at the country and the global levels seeks to serve as a basis for dialogue and action by leaders toward increased public-private collaboration on developing human capital.

## **2.0 Brief Literature Review on Human Capital Development Index**

Frank & Bemanke (2007) define that human capital is ‘an amalgam of factors such as education, experience, training, intelligence, energy, work habits, trustworthiness, and initiative that affect the value of a worker's marginal product’. Considering the production-oriented perspective, the human capital is ‘the stock of skills and knowledge embodied in the ability to perform labor so as to produce economic value’ (Sheffin, 2003). Furthermore, some researchers view human capital as ‘the knowledge, skills, competencies and attributes in individuals that facilitate the creation of personal, social and economic well-being’ with the social perspective (Rodriguez & Loomis, 2007).

Human capital development is a continuing process from childhood to old age, and a must for any society or enterprise that wishes to survive under the complex challenges of a dynamic world (Adebiyi & Oladele, 2005). Based on the foregoing, human capital can be seen as the wealth of knowledge, skills and capabilities that accrue to any country and facilitates economic growth and development leading to full employment in the country.

The Human Capital Index seeks to serve as a tool for capturing the complexity of education, employment and workforce dynamics so that various stakeholders are able to make better-informed choices and decisions. Human Capital Index measures how well an organization makes use of the ability of an individual to perform and create shareholder value through his/her competencies, knowledge and expertise. A higher human capital index indicates better management of human capital by the organization. It is measured on a scale of 100 (UNDP, 2014).

## **3.0 Methodology**

### **3.1 Area and Population of the Study**

The study area is Kano State and Kano State as a whole is made up of 44 LGAs. The Index covers 44 local governments in the state which are further sub-divided into 122 wards in total. The terms local government, ward and zones as used in this report do not in all cases refer to a territorial entity that is a state as understood by international law and practice. The term covers well-defined, geographically self-contained economic areas that may not be states but for which primary data on some indices can be generated and statistical data are maintained on a separate and independent basis.

### **3.2 Methods and Variables of Measurement of the Human Capital Index**

The Human Capital Index is a new measure for capturing and tracking the state of human capital development around the world. The four pillars of the Index are: The *Education* pillar contains 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 indicators relating to a population's physical and mental well-being, from childhood to adulthood; the *Workforce and Employment* pillar is designed to quantify the experience, talent, knowledge and training in a country's working-age population and the *Enabling Environment* pillar captures the legal framework, infrastructure and other factors that enable returns on human capital.

The Education pillar captures several dimensions of access to education and its quality, impacting the future labour force, and the educational attainment of those already in the labour force. 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 on the productivity and capacity of the current labour force. 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.

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 result 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.

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 that 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 State are gaining experience in the workforce with indicators of the *level* or *quality* of experience gained.

#### 4.0 Presentation and Discussion of the Human Capital Development Index in Kano State

The Index results are primarily reported in the context of 122 wards from the 44 local governments in Tables 1, Figure 1, 2, 3 and 4 to allow for comparisons within regional groupings and income groupings. The top ten local governments are dominated by the North-Central regions of the state, with eight of the top ten spots occupied by local governments from this region. Kano Municipal-North (1) tops the rankings for the Human Capital Index, demonstrating consistently high scores across all four pillars, with top spots on Health and Wellness and Workforce and Employment, second place on Enabling Environment and fourth on Education.

**Table 1: Detailed Ranking**

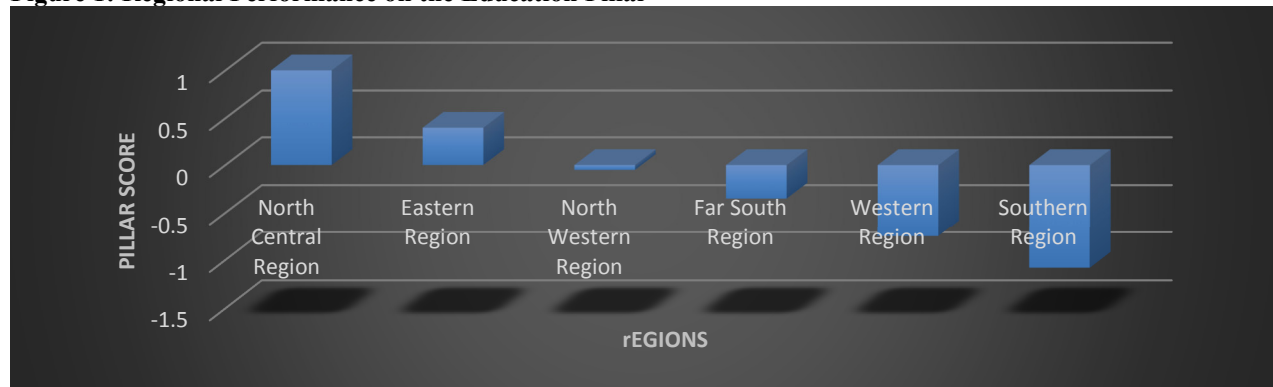
LGA	Education		Health and Wellness		Workforce and Employment		Enabling Environment			
	Rank	Score	Rank	Score	Rank	Score	Rank	Score		
Kano Municipal North	1	1.455	4	1.313	1	0.977	1	1.736	2	1.793
Kano Municipal South	2	1.406	1	1.601	9	0.844	3	1.25	1	1.926
Kano Municipal East	3	1.232	3	1.348	13	0.762	2	1.345	5	1.471
Kano Municipal West	4	1.161	7	1.106	4	0.901	8	1.15	4	1.484
Dala North	5	1.111	14	0.977	2	0.96	6	1.154	10	1.351
Dala South	6	1.109	19	0.888	8	0.877	9	1.149	3	1.522
Dala East	7	1.104	15	0.97	6	0.89	5	1.182	8	1.373
Dala West	8	1.042	10	1.031	17	0.682	10	1.072	7	1.384
Nassarawa North	9	1.024	18	0.891	3	0.943	12	0.932	11	1.33
Nasarawa south	10	0.987	2	1.355	20	0.548	15	0.875	17	1.168
Nasarawa East	11	0.985	6	1.191	11	0.78	21	0.673	14	1.296
Nasarawa West	12	0.978	5	1.204	15	0.743	17	0.804	18	1.163
Fagge North	13	0.977	25	0.713	7	0.886	14	0.886	6	1.424
Fagge South	14	0.957	8	1.075	5	0.9	16	0.826	20	1.026
Fagge East	15	0.948	28	0.628	10	0.836	11	1.027	13	1.302
Fagge West	16	0.92	11	1.027	43	0.239	4	1.235	16	1.181
Ungogo North	17	0.881	35	0.522	16	0.704	13	0.928	9	1.372
Ungogo South	18	0.834	26	0.684	44	0.206	7	1.154	15	1.294
Ungogo East	19	0.831	13	0.988	18	0.663	19	0.675	23	0.999
Ungogo West	20	0.824	9	1.033	25	0.516	22	0.645	19	1.103
Kumbotso North	21	0.746	22	0.776	14	0.744	25	0.52	24	0.943
Kumbotso South	22	0.644	34	0.526	39	0.301	18	0.736	22	1.014
Kumbotso East	23	0.64	17	0.899	27	0.481	23	0.596	30	0.582
Kumbotso West	24	0.61	29	0.626	70	-0.032	24	0.527	12	1.32
Tarauni North	25	0.587	27	0.651	29	0.457	20	0.674	32	0.568
Tarauni South	26	0.581	12	1.007	42	0.245	29	0.34	27	0.73
Tarauni East	27	0.571	20	0.862	22	0.536	39	0.142	26	0.745
Tarauni West	28	0.473	24	0.716	28	0.473	30	0.33	37	0.371
Gwale North	29	0.465	31	0.59	12	0.778	70	-0.185	28	0.679
Gwale South	30	0.453	37	0.411	23	0.532	34	0.243	29	0.624
Gwaale East	31	0.452	16	0.938	32	0.352	33	0.252	41	0.268
Gwale West	32	0.445	21	0.825	26	0.516	41	0.106	38	0.332
DawakinTofa North	33	0.387	36	0.452	36	0.31	36	0.21	31	0.576
Dawakin Tofa South	34	0.36	23	0.745	41	0.252	56	-0.018	36	0.462
Dawakin Tofa East	35	0.32	39	0.382	30	0.445	28	0.378	50	0.077
Tofa North	36	0.305	49	0.25	38	0.306	37	0.194	35	0.471
Tofa East	37	0.266	40	0.378	19	0.601	75	-0.243	39	0.329
Rimin Gado North	38	0.248	30	0.615	48	0.151	54	-0.011	43	0.237
Rimin Gado South	39	0.245	55	0.098	72	-0.041	61	-0.099	21	1.023
Rimin Gado East	40	0.232	48	0.274	64	0.011	43	0.099	33	0.544
Bagwai North	41	0.22	62	0.032	37	0.307	78	-0.280	25	0.822

LGA	Education		Health and Wellness		Workforce and Employment		Enabling Environment			
	Rank	Score	Rank	Score	Rank	Score	Rank	Score		
Bagwai South	42	0.207	66	-0.006	60	0.055	31	0.301	34	0.477
Bagwai East	43	0.186	58	0.069	65	0.01	26	0.516	47	0.147
Gezawa North	44	0.158	79	-0.242	40	0.281	27	0.482	48	0.112
Gezawa South	45	0.124	43	0.359	69	-0.031	40	0.107	51	0.061
Gezawa West	46	0.099	38	0.394	24	0.526	88	-0.378	60	-0.146
Minjibir North	47	0.099	50	0.234	45	0.202	64	-0.143	49	0.102
Minjibir South	48	0.096	67	-0.037	21	0.543	84	-0.340	44	0.219
Dambatta South	49	0.087	42	0.376	47	0.173	63	-0.139	57	-0.064
Dambatta North	50	0.02	51	0.172	35	0.323	62	-0.127	70	-0.288
Makoda North	51	0.01	41	0.377	62	0.027	66	-0.163	63	-0.201
Makoda South	52	0.005	44	0.35	68	-0.015	97	-0.481	46	0.167
Kunchi North	53	0.001	61	0.04	84	-0.215	32	0.262	58	-0.082
Kunchi South	54	0	33	0.53	73	-0.064	77	-0.275	62	-0.190
Bichi North	55	-0.011	47	0.28	34	0.331	86	-0.365	71	-0.291
Bichi South	56	-0.048	46	0.282	33	0.333	100	-0.496	74	-0.311
Tsanyawa North	57	-0.054	88	-0.497	49	0.15	45	0.078	52	0.054
Tsanyawa South	58	-0.057	82	-0.291	56	0.074	48	0.011	53	-0.022
Shanono South	59	-0.059	80	-0.285	58	0.065	80	-0.297	40	0.281
Shanono East	60	-0.065	77	-0.220	51	0.117	83	-0.337	45	0.181
Gwarzo North	61	-0.099	69	-0.090	76	-0.094	47	0.034	68	-0.244
Gwarzo East	62	-0.120	56	0.091	31	0.362	92	-0.408	84	-0.527
Karaye North	63	-0.124	45	0.316	55	0.078	67	-0.166	96	-0.725
Karaye South	64	-0.157	71	-0.153	94	-0.414	55	-0.016	55	-0.044
Karaye East	65	-0.160	52	0.165	63	0.013	115	-0.784	54	-0.033
Rogo East	66	-0.161	65	0.011	96	-0.473	38	0.164	78	-0.344
Rogo West	67	-0.165	70	-0.099	46	0.173	101	-0.499	66	-0.236
Rogo North	68	-0.171	81	-0.285	50	0.126	76	-0.246	69	-0.279
Kabo North	69	-0.176	57	0.077	61	0.048	85	-0.364	83	-0.463
Kabo South	70	-0.202	73	-0.176	88	-0.291	57	-0.040	73	-0.302
Bunkure North	71	-0.202	72	-0.169	79	-0.116	73	-0.229	72	-0.296
Bunkure South	72	-0.216	54	0.136	54	0.083	71	-0.207	105	-0.874
Bunkure East	73	-0.218	60	0.042	71	-0.035	113	-0.678	64	-0.201
Kibiya North	74	-0.220	32	0.548	77	-0.099	96	-0.458	104	-0.870
Kibiya South	75	-0.227	84	-0.323	82	-0.204	50	-0.003	81	-0.377
Kibiya East	76	-0.233	53	0.164	121	-1.043	53	-0.008	56	-0.047
Rano North	77	-0.258	74	-0.191	66	-0.005	102	-0.514	76	-0.321
Rano South	78	-0.270	63	0.02	112	-0.868	49	0.005	67	-0.239
Rano West	79	-0.291	85	-0.386	86	-0.270	93	-0.416	59	-0.090
Tudun Wada North	80	-0.297	83	-0.320	91	-0.407	59	-0.097	80	-0.364
Tudun Wada South	81	-0.306	90	-0.503	103	-0.603	35	0.226	79	-0.347
Tudun Wada East	82	-0.336	93	-0.590	59	0.061	99	-0.485	77	-0.328
Doguwa North	83	-0.337	64	0.014	53	0.092	110	-0.654	102	-0.801
Doguwa South	84	-0.341	105	-0.968	81	-0.196	46	0.035	65	-0.234
Doguwa East	85	-0.343	59	0.053	52	0.115	118	-0.945	89	-0.596
Madobi North	86	-0.361	92	-0.589	98	-0.533	105	-0.588	42	0.265
Madobi South	87	-0.363	91	-0.505	99	-0.533	60	-0.099	75	-0.317
Madobi East	88	-0.370	89	-0.498	83	-0.208	74	-0.231	85	-0.545
Kura North	89	-0.400	76	-0.198	80	-0.139	106	-0.610	92	-0.651
Kura South	90	-0.405	95	-0.612	92	-0.409	68	-0.175	82	-0.425
Kura West	91	-0.420	87	-0.423	67	-0.010	109	-0.640	90	-0.607
Garun Mallam North	92	-0.440	78	-0.233	75	-0.073	112	-0.673	100	-0.781
Garun Mallam South	93	-0.446	94	-0.594	78	-0.100	89	-0.386	94	-0.704
Bebeji North	94	-0.487	68	-0.051	87	-0.274	119	-1.059	88	-0.564
Bebeji South	95	-0.499	97	-0.732	85	-0.223	91	-0.401	91	-0.641
Bebeji West	96	-0.505	99	-0.839	102	-0.596	42	0.104	93	-0.688
Kiru North	97	-0.539	98	-0.817	100	-0.560	108	-0.620	61	-0.160
Kiru South	98	-0.546	102	-0.906	57	0.072	94	-0.433	108	-0.916
Kiru East	99	-0.552	86	-0.409	113	-0.878	69	-0.185	97	-0.736
Sumaila North	100	-0.560	103	-0.947	89	-0.335	90	-0.397	87	-0.561
Sumaila South	101	-0.564	75	-0.194	74	-0.068	114	-0.746	120	-1.250
Sumaila West	102	-0.602	112	-1.202	90	-0.404	51	-0.006	101	-0.794
Garko North	103	-0.629	101	-0.897	107	-0.723	52	-0.007	106	-0.890
Garko South	104	-0.680	100	-0.870	117	-0.957	58	-0.087	103	-0.805
Garko West	105	-0.725	107	-0.997	109	-0.749	44	0.084	118	-1.238
Takai North	106	-0.727	108	-1.036	118	-0.959	65	-0.147	99	-0.767
Takai South	107	-0.728	96	-0.687	111	-0.850	79	-0.295	113	-1.082
Takai East	108	-0.751	110	-1.084	101	-0.588	95	-0.438	107	-0.894

LGA	Education		Health and Wellness		Workforce and Employment		Enabling Environment			
	Rank	Score	Rank	Score	Rank	Score	Rank	Score		
Albasu North	109	-0.759	114	-1.302	95	-0.418	72	-0.208	114	-1.107
Albasu East	110	-0.782	104	-0.959	104	-0.606	103	-0.543	110	-1.019
Albasu East	111	-0.790	113	-1.206	97	-0.521	116	-0.878	86	-0.555
Gaya North	112	-0.837	111	-1.166	115	-0.920	104	-0.545	95	-0.718
Gaya South	113	-0.865	109	-1.044	106	-0.689	98	-0.481	119	-1.244
Ajingi North	114	-0.878	116	-1.411	120	-1.034	81	-0.328	98	-0.740
Ajingi South	115	-0.954	106	-0.991	93	-0.413	121	-1.345	112	-1.066
Wudil North	116	-0.961	115	-1.380	108	-0.749	111	-0.660	111	-1.056
Wudil South	117	-0.966	117	-1.474	114	-0.916	82	-0.337	115	-1.135
Warawa North	118	-1.034	120	-1.747	110	-0.826	107	-0.614	109	-0.949
Warawa South	119	-1.077	121	-1.817	116	-0.943	87	-0.374	117	-1.173
Dawakin Kudu North	120	-1.272	118	-1.482	119	-1.026	117	-0.911	122	-1.667
Dawakin Kudu South	121	-1.297	119	-1.744	105	-0.666	122	-1.404	121	-1.373
Dawakin Kudu East	122	-1.395	122	-1.972	122	-1.134	120	-1.320	116	-1.153

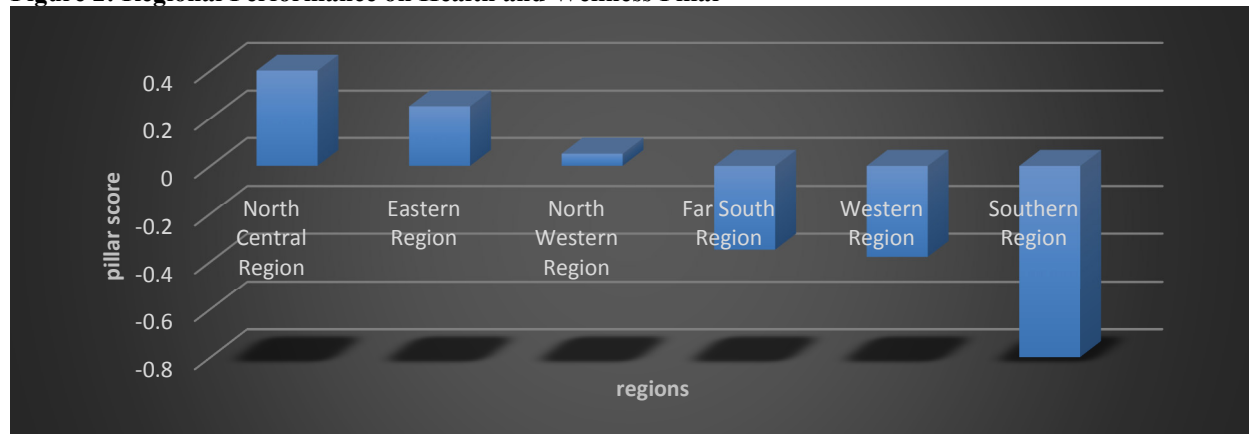
Source: Authors Computation, 2016

Figure 1: Regional Performance on the Education Pillar



Source: Authors Computation, 2016

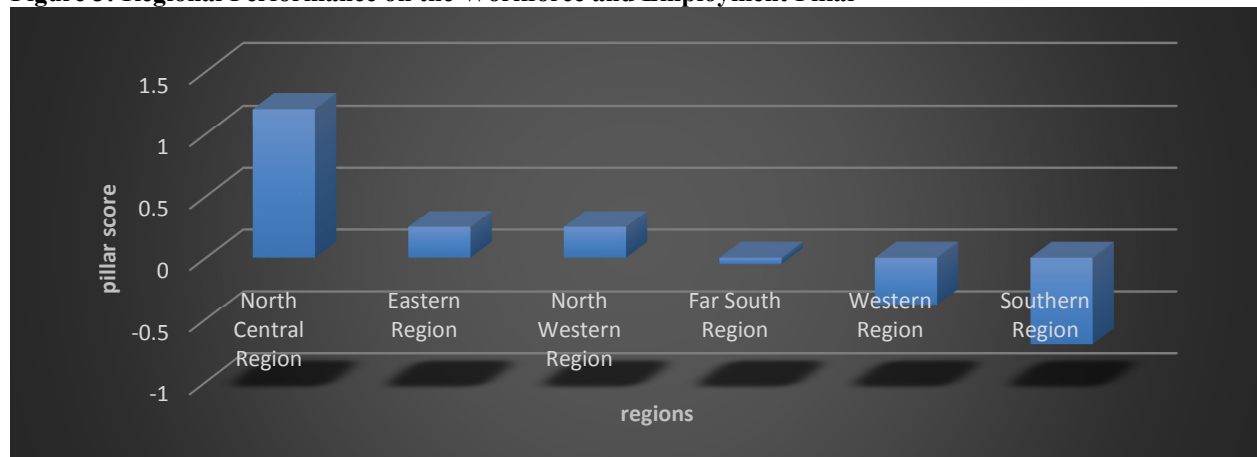
Figure 2: Regional Performance on Health and Wellness Pillar



Source: Authors Computation, 2016

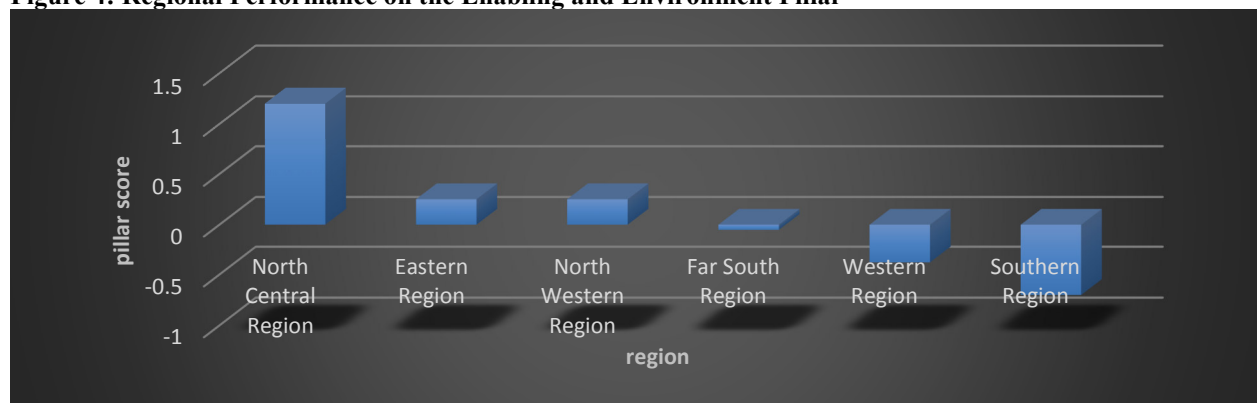


**Figure 3: Regional Performance on the Workforce and Employment Pillar**



Source: Authors Computation, 2016

**Figure 4: Regional Performance on the Enabling and Environment Pillar**



Source: Authors Computation, 2016

**North Central Kano**

Within the local governments from North Central Kano in the top ten, Kano Municipal-South (2), Dala-North (5), Dala-East (7) and Nassarawa-North (9) dominate. Kano Municipal-South’s exemplary Education and Enabling Environment scores put it at the top of the rankings for these two pillars and seven ranks ahead of the next highest-ranking Kano Municipal local government. The overall strength of the local governments from North Central Kano lies in the Workforce and Employment pillars, with Kano Municipal-South, Dala-North and Dala-East occupying three of the top six ranks. Nassarawa-North drops out of the top ten, to 12th position in this pillar and down to 11th position for the Enabling Environment pillar. Kano Municipal-East (3) is the only Kano Municipal local government in the top ten due to very strong scores on the Education pillar, Workforce and Employment pillars and a strong fifth position on the Enabling Environment pillar.

The Kano Municipal-West (4) is the third of the Kano Municipal local government in the top ten due to strong performances for Health and Wellness and for Enabling Environment. Dala-South (6) just edges ahead of the Kano Municipal-West on the Enabling Environment rankings in third place but holds ninth position on the Workforce and Employment pillar. Dala-South’s relatively low place on the Education pillar (19) pulls down the local government’s overall score in the Index.

The Dala-West (8) performs well on Enabling Environment but has lower scores on Health and Wellness, holding 17th position. Nassarawa-South (10) is the first of the two Kano Municipal local governments in the Index and the only one in the top ten. Nassarawa-South’s overall scores are greatly enhanced by its second position on the Education pillar. Ranks for the remaining three pillars vary between 15th and 20th position.

**North West Zones**

The region has a diverse spread of wealth, comprising five of the sample’s high-income economies, four upper-middle income, nine lower-middle income economies as well as Gwarzo and Bichi, two low-income countries. Kano Municipal-East (3) is ranked in the top ten. Kano Municipal-East’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 Nassarawa-West's (12) weakest pillar at 18th, the ward performs very well in some aspects, with top ten ranks across the Legal framework sub-pillar and a rank of 3 in Social mobility. Nassarawa-West's strengths in Education are similar to those of Kano Municipal-East, 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 local government to retain talent, or the 'brain drain' indicator.

Fagge-East's (15) strong performance in Health and Wellness is due to its 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. Its 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 it third place. Its relatively weaker spots in the Index include gender gap indicators for education and the workforce, the local government's ability to attract talent, and reported depression in the Well-being sub-pillar.

Ungogo-East (19) and Kumbotso-south (22) have almost identical scores on the Workforce and Employment and Enabling Environment pillars, but their performance within the pillars varies. Ungogo-East ranks poorly on its labour force participation of those over the age of 65, whereas Kumbotso-south, the highest of the region's upper-middle income local government, ranks very low for the Economic participation gender gap indicator. Kumbotso-south performs well on most of the qualitative talent and training indicators in the Workforce and Employment pillar. Ungogo-East performs well on the majority of indicators in Enabling Environment, in particular those concerning the legal framework. Ungogo-East also performs well on the Educational attainment of the population over 25 indicator.

Tofa has its strongest performance on the Education pillar, with a rank of 17. Tofa'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. Tofa's scores on the Enabling Environment pillar are pulled down by low scores on the Social mobility and Social safety net protection indicators. Tofa also has a notably low score on the Business impact of non-communicable diseases indicator, in the Health and Wellness pillar.

Bagwai-East'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. Its overall scores are boosted by good performance on the Talent sub-pillar of indicators, such as the Attraction and Retention of talent. Its highest scores are from the Labour force participation of the 15 to 64 age group and Pay relating to productivity measures indicators.

Gezawa-North (44) also has a hugely varied distribution of rankings across the pillars, ranging from 27th on Workforce and Employment to 79th in Education. Its ranks 94th on the Enrolment in primary school indicator, and the majority of the education indicators are in the bottom half of the sample local governments. It's very low levels of unemployment yield two top-five rankings for these indicators. Good performances on the qualitative talent indicators are also strong points.

Danbatta-North'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). Rano-South (78) performs well on the Workforce and Employment pillar (49) while holding only 112th position for Health and Wellness. Rano-South'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 Rano-South. Rano-South's Collaboration sub-pillar scores boost its ranking on the Enabling Environment pillar.

Kunchi-North'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 Danbatta-North's strong overall performance on the Workforce and Employment pillar. Paradoxically, the local government area's strongest performance overall is on the Well-being sub-pillar, with top and second rankings for the Depression and Stress indicators respectively.

Rogo-East (66) follows a similar profile to Kunchi (North) with a 38th ranking on the Workforce and Employment pillar and 96th on Health and Wellness. Rogo (East) 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. Kabo (South) holds 70th position. Madobi (East)'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.

Kura-North's (89) lowest performance is on the Workforce and Employment pillar, where the local government scores 106th. It takes the top spot for the Economic participation gender gap indicator, it is also in last position for the Training services indicator. It shows a stronger performance on the Education pillar where

it's primary and tertiary enrolment rates are both in the top 40 rankings. Bebeji-North (94) is the lowest of the upper-middle income economies represented in the North-West region. It 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 Bebeji-North'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. Bebeji-West (96) is followed by Albasu-East (110) and Gaya-North (112).

### **Kano East Zones**

Kano eastern local governments holds the second highest overall rank of the six regions in the Index, with a top performance on Health and Wellness and second position on Enabling Environment. Two-thirds of the region's local governments are high-income economies, with eight of the top ten in the region and thirteen in the top 20, the Eastern local governments region has only fifteen of its local governments outside the top 50.

Takai (1) and Albasu (2) hold the highest ranks on the Index. In addition to investment in human capital across health, education and employment, both countries are able to leverage strong returns through creating an efficient, effective ecosystem or enabling environment. Takai and Albasu hold the top four spots across all pillars with the exception of Albasu on the Health and Wellness pillar where Albasu ranks ninth place. The Takai, Albasu, Gaya and Ajingi follow next. Wudil, in tenth spot, trails Gaya (third) on the Enabling Environment pillar, mainly due to Gaya's more advanced scores on the Cluster development and internal infrastructure indicators. However Takai's second position globally for Health and Wellness, due to low impact of NCDs, nudges the country ahead in the overall rankings.

The Nassarawa-South (8) leads Dala-West (9) on all but the Health and Wellness pillar. The Nassarawa-South's Health sub-pillar scores are held back due to obesity and well-being indicators. Nassarawa-East (11), Fagge-North (13) and Fagge-South (14) have good overall performances on the Health and Wellness pillar, due to excellent healthcare systems and, in particular for Fagge-South, high scores on the communicable and non-communicable disease indicators low prevalence. Fagge-North and Fagge-South both post very strong scores in Education, which supports their overall rankings. Tarauni-North's 25th position on the Education pillar is the weakest performance of the three countries on any of the pillars, but its ICT and physical infrastructure ensures a strong overall ranking on the Enabling Environment pillar at sixth spot, ahead of Fagge-North in the 14th and Fagge-South in 20th positions.

Ungogo-North (17) performance ranges from ninth position on the Enabling Environment pillar, due to strengths in Legal infrastructure and Social mobility, to 35th on Education, where enrolment rates and qualitative measures of education have a lower performance. Its (20) strengths lie in Education, in contrast to Kumbotso-North's (21) performance, which places it 13 positions below Fagge-North on this pillar. Tarauni-East (27) has a consistent performance across all pillars except for Workforce and Employment, which has the local government in 39th spot. Tarauni-East has excellent scores on the Tertiary attainment and Internet access in schools indicators, helping to drive up the overall results for this pillar, although high rates of unemployment are a weak factor. Tarauni-West's (28) strength is on the Education pillar, while Infrastructure and Collaboration indicators weaken performance on the Enabling Environment pillar.

Gwale-North (29) and Gwale-South (30) share similar ranks for Enabling Environment, but within this pillar they demonstrate different strengths and weaknesses. Gwale-North performs very well on the Health and Wellness pillar with a 12th spot ranking; however a very poor 70th rank on the Workforce and Employment pillar due to low labour force participation and high unemployment brings the overall scores down significantly. Gwale-North's participation and access measures for education are strong but qualitative measures are low in comparison. Gwale-South's rankings are supported by the local government's performance on the Health and Wellness pillar, however the Education pillar is Gwale-South's main weakness, in particular the relatively low levels of educational attainment in the current workforce.

Gwale-East (31) has strong scores on the qualitative education indicators. Below average scores in well-being reduce the performance on the Health and Wellness pillar and several weak indicator scores result in the lowest performance for Gwale-East on the Enabling Environment pillar. Gwale-West (32) has a varied performance across the pillars, with Education in 21st position due to high levels of educational attainment of the adult population, and Workforce and Employment in 41st position, where unemployment impacts profoundly on the overall scores. The Dawakin Tofa-North (33) has a notably homogenous performance across all pillars with a rank of 36 for all pillars, with the exception of a stronger performance on Enabling Environment, in particular for the group of infrastructure related variables.

Dawakin Tofa-South (34) and its neighbor Rimin Gado-North (38) both demonstrate similar scores on the Workforce and Employment pillars. Tofa East's (37) main strengths lie in the health of its population. With a rank of 19 in the Health and Wellness pillar, Tofa-East has some of the top rankings in several indicators. However its lowest performance is in the Workforce and Employment pillar, where it ranked at 75th, due to low levels of staff training and low perceptions of the use of technology within business. A notable strength for Tofa-East is its perceived top position in the State of cluster development indicator.



Gezawa-West's (46) performance in the legal and regulatory environment, an inability to attract talent and low scores on innovation contributed to its ranking. Gezawa-South (45), Danbatta-South (49) and the Makoda-North (51) have almost identical scores on the Education pillar, despite varying scores on the current access to education indicators. For the latter two local governments this was their strongest performing pillar. Danbatta-South also leads the health rankings for the three local governments with a score of 47th on the Health and Wellness pillar, however Gezawa-South's higher rankings on the remaining two pillars have ensured its higher overall position on the Human Capital Index. Excellent scores on the Participation sub-pillar drive a higher overall rank on the Workforce and Employment pillar. However, business leaders still indicate an inability of the local government to source the required talent. Danbatta-South leads Makoda-North in the Workforce and Employment pillar, especially in indicators of the Talent and Training sub-pillars. However, Makoda-North has a stronger performance on the Participation sub-pillar.

Kunchi-South's (54) overall scores are driven by excellent results on the Education pillar, in particular rankings of first and fifth for primary and secondary attainment among the population over 25 years of age, while the Well-being indicators and obesity and non-communicable disease indicators suppress performance on the Health and Wellness pillar, Bichi-North (55) and Bichi-South (56) follow next. Both hold similar aggregate scores on the Education and the Health and Wellness pillars, although within these groups Bichi-North outperforms Bichi-South on the access to education indicators and later leads the former significantly on the health gender gap and stress indicators. Both local governments have low scores across the Participation sub-pillar in the Workforce and Employment pillar.

Shanono-East (60) is the last of the Eastern local government in the upper half of the overall Index rankings. Strengths on the Collaboration and Legal framework sub-pillars of the Enabling Environment pillar push this pillar to a rank of 45, and generally sound performances across the Health and Wellness pillar offset weaker performances on the Education and Workforce and Employment pillars, the latter being due to low levels of labour force participation and a significant gender gap in economic participation.

Karaye-North's (63) performance is varied across the categories with 45th position on the Education pillars in contrast to its 96th rank on Enabling Environment. Tertiary enrolment and gender parity in education support the 45th ranking while very low Social mobility, Legal infrastructure and Cluster development scores are behind the low Enabling Environment pillar score. Karaye-South (64)'s weakest pillar is Health and Wellness, especially the Survival and the Health sub-pillars, and it has one of the region's lowest scores in the gender gap indicator. Karaye-East (65), Kabo-North (69) and Bunkure-South (72) follow next. Bunkure-East's (73) overall rank is reduced as a result of a very low score in the Workforce and Employment pillar at 113, where unemployment is among the highest in the region and levels of employee training are low. Rano-North (77) also has a weak performance on the Workforce and Employment pillar due to poor rankings on both unemployment and training indicators. A high proportion of years lived in good health and a low prevalence of stunting and wasting in children support stronger scores for the Health and Wellness pillar, where the country ranks 66th overall.

Doguwa-North (83) and Doguwa-East (85) perform significantly better on the Education and Health and Wellness pillars than on the Workforce and Enabling pillar. The education levels of the current workforce boost the pillar's aggregate scores although performance is weaker on the qualitative measures. Doguwa-North has one of the lowest labour force participation rates in the world, despite above-average rankings on the economic participation gender gap indicators and the two unemployment indicators. Doguwa-East's lowest scores are on the qualitative talent indicators, while low scores for staff training and high unemployment also bring down the overall score for the Workforce and Employment pillar for the local government.

The Garun Mallam-North (92) is the lowest performing of the Eastern local governments. Rankings of 78 and 75 for Education and Health and Wellness respectively are offset by lower rankings on the other two pillars. Very weak scores on the Enabling Environment's Legal framework and the Collaborative sub-pillars negate the top 50 rankings achieved on some of the infrastructure indicators. It scores its highest aggregate rankings on the Well-being sub-pillar within the Health and Wellness pillar.

### **Western Local Governments**

The Western region has a very diverse profile of local governments in terms of wealth. The region comprises 15 local governments; of which, seven are high income, four are upper-middle income and four are lower-middle income. The region ranks fourth on Health and Wellness, holds second to last place on the Education and Enabling Environment pillars and are in the last place on Workforce and Employment.

Karaye (18) has a broad range of ranks across the four pillars, from the seventh spot on the workforce and employment pillar to 44th position on the Health and Wellness pillar. Karaye's high ranking on the workforce and employment pillar is due to top rankings on both employment indicators and Country capacity to retain talent as well as top ten rankings on the Staff training, Capacity to attract talent, Pay related to productivity and Labour force participation (15-64) indicators. Other high scores for education quality and collaboration on the Enabling Environment pillar are also important contributing factors.

Rogo local government also benefits from high qualitative Education pillar rankings and Kuru's high educational attainment rates help drive its overall scores. The Rogo's rankings are pulled down by shortfalls on the Health and Wellness pillar with a last place ranking for Deaths under 60 from non-communicable diseases and a weak performance for Obesity. The Collaboration indicators of the Enabling Environment pillar are also helping to push up the overall scores for the score. Kuru's Life expectancy, Business impact of non-communicable diseases and health services indicators are strong performers for the country.

### **South Local Governments**

Three local governments are represented in the southern part of the state region, which scores at the bottom of the six regions overall, with the lowest scores for each pillar, except for the Workforce and Employment pillar where it ranks fifth, ahead of the Western region. Bebeji-North (94) is the highest-ranking local government in the region and the only local government from the region in the top 50. Fair performances on Education and Enabling Environment, and in particular Health and Wellness is ranked 94th, mean that the local government is significantly ahead of the region's second and third placed countries, Garko-North (103) and Garko-West (105). A lower 64th position on the Workforce and Employment pillar is due to low levels of labour force participation and a low ranking on the youth unemployment indicator.

### **Far South Local Governments**

Far south local governments ranks fourth on the overall Index, ahead of the West and South regions respectively. The region comprises predominantly upper-middle income economies, with four high-income economies and six lower-middle income economies. Doguwa-North (85) is the highest-ranking local government in the region due to its strong scores on the Education pillar, where it ranks in 12th place. The local government has four indicators in this pillar that rank in the top ten; these are mainly in the Qualitative sub-pillar. The obesity and non-communicable disease indicators in the Health and Wellness pillar pull down the overall scores for this pillar to 42nd place; otherwise, Sumaila has good results on the Survival gender gap and Healthcare accessibility indicators.

Tudun Wada and Kibiya are similarly ranked across a number of pillars; however, Kibiya has particular strengths on the Enabling Environment pillar. Conversely, Tudun Wada is substantially stronger than Kibiya in three of the five qualitative measures of the Education pillar. Tudun Wada performs well on the training indicators and better overall on the talent indicators than it does on the participation indicators in the Workforce and Employment pillar. Kibiya has stronger attainment and enrolment scores except for higher education.

Sumaila's Health and Wellness and Workforce and Employment pillars rank at 89th and 90th respectively and are the local government's strongest. The country's high rankings on the capacity to attract and retain talent indicators help drive the Workforce and Employment pillar scores up, as does the mobile phone penetration indicator within the Enabling Environment pillar. Weaker scores on obesity, stress, and qualitative indicators of math and science education contribute to a reduction in the overall rankings.

Rano has good enrolment rates for primary and tertiary education, which help keep the overall Education pillar scores buoyant, despite weaknesses in several of the qualitative indicators. A top rank for the Survival gender gap indicator is in contrast to the bottom rank on Pay relating to productivity measure.

## **5.0 Conclusion and Recommendations**

### **5.1 Conclusion**

In conclusion, 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 local government. 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.

From the index some regions of the states have poor ranking of all the human capital index especially far south region, western region and southern region most of the index were show negative meaning these regions are extremely poor in term of human capital development which was captured by the level of education, health and wellness, workforce and employment and enabling environment. Therefore, the study recommends some policies that will help to improve level of education, health and wellness, workforce and employment and enabling environment for human capital development in Kano State.

### **5.2 Recommendations**

- i. Government should reexamine the problems education and health sectors in the State especially, in the far south region, western region and southern region of the State in order to define a strategic direction and articulate new strategies towards improving human capital index.
- ii. Government should increase the funding of education and health sectors in the State especially, in the

far south region, western region and southern region of the State in order to increase accessibility and effective delivery of education and health care services in State.

iii. In addition, a more effective and prudent financial management system that ensures better value for money should be adopted towards maximizing benefits of public spending on human capital development.

iv. Government should harness properly all public and private health and education services providers to develop an underlying philosophy of providing quality service to their clients.

v. Government should design a mechanism for effective monitoring and evaluation of education and health sectors in the State for both private and public institutions to ensure efficiency and productivity that will help improve the level of human capital development index in Kano State

## REFERENCES

- Adebiyi, M.A. and O. Oladele. (2005). Public Education Expenditure and Defense Spending In Nigeria: An Empirical Investigation. <http://www.saga.cornell.edu/~saga/educonf/adebiyi.pdf> (accessed February 10, 2010).
- Frank, R. H., & Bernanke, B. S. (2007). Principles of Microeconomics (3rd ed.). New York: McGraw-Hill/Irwin.
- KNSHDP, 2010 Kano State Strategic Health Development Plan, Kano State Government of Nigeria.
- Lawanson, O. and Marimathu, L. (2009); Human Capital Investment and Economic Development in Nigeria: The Role of Education and Health, University of Lagos, Nigeria, *Research Paper*.
- Rodriguez, P. J., & Loomis, R. S. (2007). A New View of Institutions, Human Capital, and Market Standardization. *Education, Knowledge & Economy*, 1(1), 93–105.
- Sarah O. Anyanwu, J.A. Adam, Ben Obi, & M. Yelwa (2015) Human Capital Development and Economic Growth in Nigeria, *Journal of Economics and Sustainable Development* [www.iiste.org](http://www.iiste.org) ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online) Vol.6, No.14, 2015 Pp 17-20
- Sheffrin, M. S. (2003). *Economics: Principles in Action*. New Jersey: Pearson Prentice Hall.
- UNDP (2014) Human Development Report 2014
- World Bank Development Report, 2010
- World Bank Development Indicator, 2014