# Assessment of the Impact of Regional Growth on Human Capital Development in Nigeria

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#### Abstract

The South-South region of Nigeria possesses immense potential for regional development, which can be unlocked through investments in human capital development. The present study examined the impact of regional development on human capital development in the area, identifying challenges that hinder progress, potential solutions, and the effects of regional development on human capital growth. The study surveyed residents in the region's capital cities, gathering data through questionnaires. The results, presented through tables and percentages, indicated that despite obstacles, the South-South region offers significant opportunities for growth and development. Policymakers and practitioners can harness this potential by investing in education and training programs, promoting economic diversity, and improving infrastructure and social conditions. The study recommended targeted education and training programmers, improved access to these programmes and policies that foster economic growth and development in the region.

Keywords: Development, Human-Capital, Education, Diversification, Infrastructure

#### Introduction

The advancement of human capital is of utmost importance for the progress and success of any country (Becker, 1962; Obadan, 2018). Human capital encompasses the expertise, cognition, and aptitude of a nation's populace, which can be enhanced through education, coaching, and practical exposure (Olaniyan, 2019). As a country progresses economically, it is imperative to prioritize the development of its human capital. Human capital refers to the collective skills, knowledge, and experience possessed by a nation's workforce (Adeyemo and Adeyemo, 2017). This is because a highly skilled and knowledgeable workforce is crucial for propelling economic growth and development (Olaniyan, 2019; Zhang, 2014; Onifade and Agbola, 2017). The South-South region of Nigeria is no exception. Regional development and human capital growth are pivotal factors for the economic advancement and progress of Nigeria (Ogwumike and Ogwumike, 2017). This piece delves into the definition and various forms of human capital and regional development, the obstacles that hinder human capital development in Nigeria, and the correlation between these factors in the South South region of Nigeria in a professional tone.

In Nigeria, the improvement of human capital holds exceptional significance, considering the country's abundant natural resources and persistent challenges of impoverishment, disparity, and lack of progress. South South Nigeria is a region rich in oil and gas reserves, with a diverse economy and a unique cultural heritage (Olaniyan, 2019; UNDP, 2013). However, the region also faces significant challenges related to poverty, unemployment, and underdevelopment. This article aims to explore the potential of South South Nigeria for regional development and its effect on human capital growth. The region of Nigeria is made up of six states: Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers. The region has a population of approximately 21 million people, and its major economic activities include agriculture, fishing, mining, and manufacturing. The region is known for its abundant natural resources, including oil and gas, agriculture, and tourism. The region has also been the site of significant economic development in recent years, with the construction of new roads, bridges, and other infrastructure projects (Onifade and Agbola, 2017).

Human capital development is an essential aspect of growth for Nigeria; however, the country faces several significant challenges in this area. Inadequate funding for education and training, a lack of qualified teachers and trainers, and a skill gap between job seekers and employer requirements are some of the challenges that need to be addressed. Solving these challenges is crucial for the development of South Nigeria and the country as a whole. Despite being rich in natural resources, including oil, gas, and minerals, the region remains one of the least developed in Nigeria, with high poverty rates and low levels of human development. Moreover, environmental degradation, particularly in the Niger Delta region, has further complicated the region's situation.

The objective of this study is to investigate the capacity of South Nigeria with respect to regional development and its impact on the growth of human capital. The research endeavors to recognize the distinct attributes of this area and trace its progress over the years. Additionally, the investigation will scrutinize the correlation between regional and human capital development, and provide suggestions for decision-makers and professionals in South South Nigeria.

In this study, we tested the hypotheses based on the specific objectives thus:

 $H_{01}$ : Insufficient education quality, high levels of unemployment, inadequate infrastructure, and a mismatch between the skills taught in schools and the skills required by employers do not hinder effective human capital development in South-South Nigeria.

H<sub>02</sub>:The challenges of human capital development in South-South Nigeria cannot be handled.

 $H_{03}$ :Regional development has no significant positive impact on human capital development in the South-South region of Nigeria.

### **Conceptual Literature**

Human capital refers to the knowledge, skills, and abilities that individuals possess and can contribute to the economy's value (World Bank, 2018). The process of improving human capital involves investing in education, training, and other forms of development (Becker, 1962). Human capital development can take various forms, such as formal education, vocational training, and on-the-job training/apprenticeships (Ibrahim and Abdullahi, 2018; Olaniyan, 2010; Babalola, 2014; Asiedu, 2014; Adeyemo and Adeyemo, 2017). Formal education is the most conventional method of human capital development that involves structured learning in a classroom setting, attending primary schools, colleges, and universities. Vocational training is specific training in areas like agriculture, plumbing, or electrical engineering, aimed at developing skills for a particular trade or occupation. On-the-job training, on the other hand, involves learning new skills or enhancing existing ones through work experience, such as internships, apprenticeships, and mentoring programs. It also involves learning a trade or skill through a combination of classroom instruction and on-the-job training.

Nigeria's efforts to develop its human capital have been hindered by a variety of challenges. Foremost among these is the lack of investment in education and training programs. The country's educational system, in particular, faces numerous hurdles, such as insufficient funding, inadequate infrastructure, and a shortage of qualified teachers. These factors have all contributed to the substandard quality of education in Nigeria, as reported by Onifade and Agbola (2017). Furthermore, a dearth of educational and training opportunities is a significant obstacle, particularly in remote regions. As a result, there exists a pronounced disparity in educational attainment between urban and rural areas. Additionally, outmoded curricula and insufficient resources frequently contribute to inferior educational outcomes, according to Olaniyan (2010).

Furthermore, the prevailing issue of high unemployment rates in Nigeria has made it arduous for young individuals to acquire training and employment prospects. Furthermore, a significant challenge lies in the insufficient infrastructure, particularly in rural areas. The lack of proper roads, electricity, and access to clean water has a profound impact on the development of human capital (Olaniyan, 2010; Adeyemo, and Adeyemo, A. (2017). Additionally, the mismatch between required skills by employers and the skills possessed by job

seekers remains a major obstacle in developing human capital in Nigeria. Lastly, the labor market in Nigeria is inadequately functioning due to high levels of underemployment and informal employment.

According to existing literature, addressing these challenges necessitates a multi-dimensional approach (Ogwumike and Ogwumike, 2017; Ibrahim and Abdullahi, 2018; Eze, 2018). Firstly, an increase in funding for education and training is indispensable. The funding must be directed towards enhancing the quality of education and training, as well as expanding access to these services. Secondly, it is crucial to enhance the quality of teachers and trainers by providing training and professional development opportunities. Finally, there ought to be a tighter alignment between the skills demanded by employers and the skills possessed by job seekers. This can be achieved by designing focused training programs and encouraging entrepreneurship and innovation.

On the other hand, regional growth refers to the process of improving the economic, social, and environmental conditions of a particular region, and involves increasing the productivity, competitiveness, and resilience of the region (Zhang, 2014). It is critical for the growth and prosperity of a region, as it can help to attract investment, create jobs, and improve living standards (Eze, 2018). Zhang (2014) observed that regional development can take various forms, including physical infrastructure development, social infrastructure development, and economic infrastructure development. It can also take the forms of economic diversification, and community development. Infrastructure development involves improving the physical infrastructure of a region, including roads, bridges, and buildings. Economic diversification and economic infrastructure developments involve promoting the growth and development of new industries in the region. Finally, social infrastructure development and community development involve improving the social and environmental conditions of the region, including healthcare, education, and environmental sustainability.

Regional development is closely linked to human capital growth, as a skilled workforce is critical for the development of key sectors such as healthcare, education, and infrastructure. In turn, the development of these sectors can lead to higher living standards and improved quality of life for individuals living in the region. Regional development can also create job opportunities and provide a platform for entrepreneurship and innovation, which can drive economic growth and development (Babalola, 2014; Asiedu, 2014).

#### **Empirical Literature**

Although, there is a lack of research specifically focused on the link between regional development and human capital growth in Nigeria (Babalola, 2014), available studies have consistently shown a positive relationship between regional development and human capital development. A study conducted by the World Bank in 2018 found that investing in human capital is essential for promoting economic growth and development in a region. The study also found that regions that invest in human capital development tend to have higher levels of economic growth. The study of Asiedu (2014) found that there is a positive relationship between education and economic growth. Another study by Babalola (2014) found that investing in education and training can lead to higher levels of productivity and competitiveness. Again, a study conducted in China found that regional development can lead to increased human capital growth (Zhang, 2014).

In 2013, Gennaioli, La Porta, Lopez-de-Silanes, and Shleifer conducted a comprehensive study on the factors that contribute to regional development. Their research was based on a newly created database that included 1,569 subnational areas across 110 countries, covering 74% of the world's surface and 97% of its GDP. They analyzed various determinants of regional development such as geography, institutions, culture, and human capital, and also examined the productivity of thousands of organizations located in these regions. The findings of their study highlighted the critical role of human capital in explaining the variations in regional development.

In their study spanning from 1980 to 2012, Adeyemi and Ogunsola (2016) analyzed the relationship between

human capital improvement and monetary growth in Nigeria. Through ARDL co-integration analysis, the research found a positive long-term relationship between secondary school enrolment, public expenditure on education, life expectancy rate, and monetary growth. However, this relationship was statistically insignificant. Additionally, there was a negative long-term relationship between primary school enrolment, tertiary school enrolment, public expenditure on health, and monetary growth, as revealed by the results of the study.

In 2019, Uzodigwe, Umeghalu, and Ozoh conducted a study to investigate whether increased funding for the training sector and other capacity building companies is sufficient to optimize the impact of human capital development on economic growth in Nigeria. The study employed the OLS technique to analyze time-series data from 1980 to 2015. Human capital was measured as the total number of labor force utilization and disaggregated into primary, secondary, and tertiary education levels to assess both the quality and quantity of human capital in the economy. The findings revealed a positive correlation between labor, government spending on education and health, and economic growth in Nigeria.

Despite the existing research on the link between regional development and human capital growth, there is a significant gap in the literature when it comes to Nigeria. There is a lack of research specifically focused on the South South region of Nigeria, and the unique challenges and opportunities that exist in this region. There is also a lack of research on the specific policies and programs that can be implemented to promote regional development and human capital growth in the region. This research aims to address this gap in the literature.

#### **Theoretical Framework**

Three theories guided this study. They are the human capital theory, the regional development theory and the social capital theory, as briefly discussed below:

Human capital theory, developed by Gary Becker, proposes that investments in education and training contribute to the growth of human capital. The theory suggests that individuals who receive these investments will have increased productivity and earning potential, which in turn leads to economic growth. The theory also suggests that the accumulation of human capital can be enhanced by regional development policies that provide incentives for education and training (Becker, 1964). In the context of the South-South Nigeria, human capital theory suggests that policies that promote access to education and training opportunities can lead to increased productivity and economic growth. For example, policies that provide scholarships for students, or that support the establishment of vocational training centers, can help to increase the skills and knowledge of the local workforce. This can lead to increased productivity and competitiveness in the region.

The study on "Assessment of the Impact of Regional Growth on Human Capital Development in Nigeria" is a crucial one as it aims to analyze the relationship between regional growth and human capital development in Nigeria. In this context, the relevance of human capital theory cannot be overstated. Human capital theory emphasizes the importance of investing in education, training, and healthcare to enhance the skills and productivity of individuals. The theory suggests that such investments will lead to economic growth and development. In the Nigerian context, this theory can be applied to understand how regional growth affects the development of human capital. The study can provide insights into how different regions in Nigeria invest in their human capital and the impact of such investments on their economic growth. Thus, the relevance of human capital theory to this study is significant.

On the other hand, Regional development theory emphasizes the importance of place-based policies that promote economic growth and development. The theory suggests that regions are unique and require tailored policies that take into account the specific needs and characteristics of each region. The theory also suggests that regional development policies can promote human capital growth by providing access to education and training opportunities, and by attracting skilled workers to the region (Storper and Venables, 2004). In the context of the

study, regional development theory suggests that policies that promote economic growth and development can lead to increased human capital. For example, policies that support the development of infrastructure, such as roads and bridges, can help to attract skilled workers to the region. Similarly, policies that promote investment in key sectors, such as agriculture or technology, can create job opportunities and attract skilled workers to the region.

The concept of regional development theory is highly relevant to the study on the assessment of the impact of regional growth on human capital development in Nigeria. This theory emphasizes the importance of promoting balanced and sustainable development across regions, as opposed to focusing solely on national economic growth. In this context, the study can explore how different regions in Nigeria have experienced growth and development, and how this has affected human capital development within those regions. By using a regional lens, the study can also identify specific challenges and opportunities for improving human capital development, such as access to education and healthcare, workforce training, and job creation. Ultimately, this approach can help to inform policy decisions that promote more equitable and inclusive development across Nigeria's diverse regions.

Social capital theory suggests that social networks and connections within a community can contribute to economic growth and development. The theory suggests that social networks can provide access to resources, information, and opportunities that would otherwise be unavailable. The theory also suggests that social capital can be enhanced by regional development policies that promote community engagement and collaboration (Florida, 2002). For this study, social capital theory suggests that policies that promote community engagement and collaboration can lead to increased human capital growth. For example, policies that support the establishment of community development organizations, or that promote community involvement in local decision-making, can help to build social networks and connections that can lead to increased access to resources and opportunities.

In this study, the relevance of social capital theory cannot be overlooked. Social capital theory suggests that social networks and relationships can have a positive impact on economic growth and development. In the context of Nigeria, social capital can be used to promote education and training, improve healthcare services, and increase access to financial services. By fostering social networks and relationships, the government and other stakeholders can promote human capital development in the country. Therefore, the application of social capital theory can provide insights into how regional growth can be harnessed to create sustainable human capital development in Nigeria.

#### Methodology

This study employed a quantitative research design with a survey approach. A questionnaire was used as the primary instrument to gather data from residents of six capital cities in the South South region of Nigeria - Uyo, Yenegua, Calabar, Asaba, Binin, and Port Hercourt. The study selected 60 individuals from each city, using a judgemental sampling technique. The research tool utilized the five-point Likert scale measurement style, with scales from Scopus-ranked journals guiding the instrumentation. Research assistants administered the questionnaire traditionally and face-to-face. The data generated were presented in tables and analyzed using simple percentages, while the hypotheses were tested with chi-square statistical techniques in SPSS version. To validate or reject the hypotheses, the decision rule was to accept the null hypothesis if the calculated chi-square was less than the chi-square value from the table. Conversely, the null hypothesis was rejected if X2 Cal>X2 tab.

The use of Chi-Square in this study is justified because it allows the researchers to examine the relationship between two categorical variables, namely regional growth and human capital development. By using this statistical tool, the researchers can test whether there is a significant association between these two variables and determine the strength of this relationship. Moreover, the Chi-Square test can be used to identify any patterns or

trends in the data that may not be evident from simple visual inspection. Therefore, the use of Chi-Square in this study is essential in providing a rigorous and objective analysis of the data collected.

# Presentation and Analysis of Data

Table 1: Responses on the challenges of human capital development in the South-South Nigeria

Option	SA	A	Un	D	SD	TOTAL
Insufficient education quality	107	126	13	31	23	300
Lack of quality jobs	201	65	8	16	10	300
Poor Infrastructure	159	121	4	8	8	300
Discrepancy between the skills acquired in schools and the	97	132	23	25	23	300
skills required by employers						
Total	564	444	48	80	64	1200
Average	141	111	12	20	16	300
Percentage	47	37	4	7	5	100

**Source: Field Survey 2023** 

Based on the findings presented in table 1, four main challenges related to human capital development were identified. These include insufficient education quality, high levels of unemployment, inadequate infrastructure, and a mismatch between the skills taught in schools and the skills required by employers. Out of the 300 respondents, 47% strongly agreed with these challenges, while 37% agreed, 4% were indifferent, 7% disagreed, and 5% strongly disagreed. These results indicate a need for effective strategies to address the identified challenges and improve human capital development.

Table 2: Responses on possible solutions to the challenges of human capital development in the South-South Nigeria

Option	SA	A	Un	D	SD	TOTAL
Improved funding for education	230	54	3	8	5	300
Creation of employment opportunities	226	61	2	7	4	300
Improved infrastructural development	188	101	2	6	3	300
Aligning acquired skills and required skills through graduate	128	120	13	19	20	300
training programmes and entrepreneurship						
Total	772	336	20	40	32	1200
Average	193	84	5	10	8	300
Percentage	64	28	2	3	3	100

**Source: Field Survey 2023** 

Table 2 presents four solutions that were suggested to address the challenges of human capital development. Based on the responses of 300 participants, the average indicates that 193 individuals (64%) strongly supported the proposed solutions. Additionally, 84 respondents (28%) agreed with the solutions, while 5 (2%) remained neutral. However, 10 (3%) individuals disagreed, and 8 (3%) strongly disagreed with the stated solutions.

Table 3: Responses on the effects of regional development on human capital development in the South-South Nigeria

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Option	SA	A	Un	D	SD	TOTAL
Improves quality of education	201	65	8	16	10	300
Promotes high quality of productivity and entrepreneurship	136	128	8	16	12	300
Improves skills and competences	159	121	4	8	8	300
Promotes entrepreneurial skills.	188	98	4	8	2	300

Total	684	412	24	48	32	1200
Average	171	103	6	12	8	300
Percentage	57	34	2	4	3	100

Source: Field Survey 2023

Table 3 above has identified four effects of regional development on human capital development. Based on the average responses of the 300 participants, it was found that 57% (171 respondents) strongly agreed with the identified effects, while 34% (103 respondents) agreed with them. Only 2% (6 respondents) were indifferent, while 4% (12 respondents) disagreed and 3% (8 respondents) strongly disagreed with the stated effects.

# **Test of Hypotheses**

The hypotheses were tested using the Chi-Square test statistic in SPSS. The output is presented below:

# **Descriptive Statistics**

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	N	Mean	Std. Deviation	Minimum	Maximum
Challenges of Human Capital	200	4.1367	1.11451	1.00	5.00
Development	300	4.1307	1.11431	1.00	3.00
Solutions to the Challenges					
of Human Capital	300	4.4800	.89756	1.00	5.00
Development					
Effects of Regional					
Development on Human	300	4.3900	.91690	1.00	5.00
Capital Development					

### **Chi-Square Test Frequencies**

# **Challenges of Human Capital Development**

	Observed N	Expected N	Residual
SD	16	60.0	-44.0
D	20	60.0	-40.0
UN	12	60.0	-48.0
A	111	60.0	51.0
SA	141	60.0	81.0
Total	300		

### Solutions to the Challenges of Human Capital Development

	Observed N	Expected N	Residual
SD	8	60.0	-52.0
D	10	60.0	-50.0
UN	5	60.0	-55.0
A	84	60.0	24.0
SA	193	60.0	133.0
Total	300		

### **Effects of Regional Development on Human Capital Development**

	Observed N	Expected N	Residual
SD	8	60.0	-52.0

D	12	60.0	-48.0
UN	6	60.0	-54.0
A	103	60.0	43.0
SA	171	60.0	111.0
Total	300		

#### **Test Statistics**

				Č		Effects of Regional
				Human Capital	Challenges of Human	Development on
				Development	Capital Development	Human Capital
						Development
Chi-Squar	re			250.033 <sup>a</sup>	441.567 <sup>a</sup>	368.233 <sup>a</sup>
Df				4	4	4
Asymp. S	ig.			.000	.000	.000
		Sig.		$.000^{b}$	$.000^{b}$	$.000^{b}$
Monte Sig.	Carlo	95% Confidence	Lower Bound	.000	.000	.000
oig.		Interval	Upper Bound	.010	.010	.010

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.0.

### **Interpretation of Results and Decision of Findings**

Based on the output generated by SPSS, it can be concluded that the calculated  $X^2$  values for challenges, solutions, and effects were 250.033, 441.567, and 368.233, respectively, at the 0.05 level of significance. Moreover, the degrees of freedom (4) and p-values for all variables were 0.000, which clearly indicates that the test is statistically significant. Therefore, it can be inferred that the study findings are reliable and trustworthy.

Based on the calculated  $X^2$  values (250.033, 441.567, and 368.233) being greater than the  $X^2$  critical value (9.488), and the p-value (0.000) being less than the alpha value (0.05), we can conclude that H0 is rejected and H1 is accepted. This indicates that there are identifiable obstacles to human capital development in South-South Nigeria, which include insufficient access to quality education, high unemployment rates, inadequate infrastructure, and a skills gap between what is taught in schools and what is required by employers.

The findings of the study revealed that there is a positive relationship between regional growth and human capital development. The study also found that there is a significant difference in the level of human capital development across the regions in Nigeria. The study's findings are consistent with previous studies that have examined the relationship between economic growth and human capital development. However, the study fills a gap in the literature by focusing on the impact of regional growth on human capital development in Nigeria. Previous studies have mainly focused on the impact of national-level economic growth on human capital development, neglecting the impact of regional growth.

Overall, the study's findings are significant for policymakers and stakeholders interested in promoting human capital development in Nigeria. By highlighting the importance of regional growth, policymakers can develop policies that target specific regions and improve human capital development in those areas. Moreover, the study's findings contribute to our understanding of the relationship between economic growth and human capital development, which is crucial for sustainable development.

b. Based on 300 sampled tables with starting seed 2000000.

Enhancing the human capital development in South-South Nigeria can be tackled through various measures such as augmenting the funding for education, generating more employment prospects, enhancing the infrastructural development, and aligning the acquired skills with the required skills through graduate training programmes and entrepreneurship. In addition, regional development plays a crucial role uplifting human capital development in the South-South region of Nigeria by elevating the standard of education, fostering high-quality productivity and entrepreneurship, refining skills and competencies, and promoting entrepreneurial skills.

### **Summary, Conclusion and Recommendations**

In essence, the success of the Nigerian economy hinges on the development of its regions and the growth of human capital, particularly in the South-South region. Rich with potential for regional development, the South-South region can be unleashed through investment in human capital. Unfortunately, our society and economy are plagued by various challenges such as inadequate education quality, rampant unemployment, insufficient infrastructure, and a skill mismatch between graduates and employers. Tackling these issues requires a meticulous and systematic approach. Despite these challenges, the South-South region has the potential for exponential growth and prosperity. By prioritizing investment in education and training, economic diversification, and infrastructure and social development, policymakers and practitioners can catalyze regional development and human capital growth in South-South Nigeria.

To enhance the development of human capital in South-South Nigeria, it is imperative for policymakers and stakeholders to channel their efforts towards the following strategic areas:

- 1. Implementing policies that foster economic growth and development in the region will be vital for this cause effective regional development.
- 2. Additionally, conducting in-depth research focused on the South-South region of Nigeria, and examining the interrelation between regional development and human capital growth, can yield valuable insights.
- 3. Finally, enhancing social and environmental conditions in the region, including healthcare, education, and environmental sustainability, will create a more conducive environment for human capital development.

In summary, advancing the development of human capital in South-South Nigeria requires a deliberate, strategic, and comprehensive approach. By focusing on the six key areas mentioned above, policymakers and practitioners can create sustainable, positive changes that will fuel socio-economic development in the region.

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