



## BUSINESS EDUCATION, RESEARCH DEVELOPMENT AND KNOWLEDGE-BASED ECONOMY

MORILI BISOLA AMODA<sup>1</sup>, ADEGBOYEGA ADEBAYO<sup>2\*</sup>, ADENIYI BABAJIDE AKEJU<sup>3</sup>

Department of Business Education, Tai Solarin University of Education, Ijagun, Ogun State, Nigeria

\*Corresponding Author: [adeniyiakeju@yahoo.com](mailto:adeniyiakeju@yahoo.com)

**To cite this article (APA):** Amoda, M. B., Adebayo, A., & Akeju, A. B. (2024). Business education, research development and knowledge based economy. *AAU Journal of Business Educators*, 4(1), 195-208

### Abstract

*The study examined how business education and research development influence knowledge-based economy. Two research questions and three null hypotheses guided the study. A quantitative survey research design was adopted for the study. The population of the study included the entire academic staff and postgraduate students of public (federal and state) universities. A total of four universities comprising one federal and three state owned universities were selected through the stratified random sampling technique. These universities were among those that offer Business Education Programme as an academic discipline. A total of 665 (62 academic staff and 603 postgraduate students) were selected purposively cutting across all the selected universities. A self-developed structure questionnaire titled: Business Education, Research Development and Knowledge-Based Economy Questionnaire with 0.79 as reliability coefficient was used for data collection. Descriptive statistics (mean) with the aid of pie-chart was adopted in answering research questions. Research hypotheses 1 and 2 were tested using Pearson Product Moment Correlation Coefficient while hypothesis 3 was tested using multiple regression analyses at 0.05 level of significance. The findings of the study revealed that knowledge-based economy in Nigeria was still at lower level and that factors such as inadequate capacity for innovation, low level of quality of scientific research, poor funding for research development, inadequate commercialization of research outputs, poor investment in education, neglect of local policy in favour of foreign policy and weak institutional framework were among the causative factors that affected knowledge-based economy in South-West, Nigeria. The findings also indicated that there was significant relationship between business education ( $r = 0.007, p < .05$ ), research development ( $r = 0.022, p < .05$ ) and knowledge-based economy in South-West, Nigeria. It further showed that about 12% of the variance in knowledge-based economy was accounted for by the linear combination of the business education and research development. The study recommended among other that University management and administrators in alliance with all other relevant stakeholders in education should endeavour to focus more on business education programme as an academic discipline that trained its recipients for knowledge, skill and entrepreneurial development which could be in a better position to promote knowledge-based economy in long run. There should be improvement in university-industry collaboration to commercialize research outputs for further innovation gain.*

**Keywords:** Business Education, Knowledge-Based Economy, Research Development, Postgraduate Students, Public Universities



## Introduction

Knowledge-based economy became one of the developmental strides every serious nation of the world seeks to achieve and sustain. Knowledge-based economy is a system of economy during which the assembly of products and services is predicated principally on knowledge-intensive activities that contribute to advancement in technical and scientific innovation. It could also mean economy where knowledge is the key asset, that is, knowledge-based economy is an economy system relying upon high level intellectual skills for production. Ahmad, Batool, Iqbal and Shah (2021) stated that a knowledge-based economy considers inventiveness to be the establishment stone where consideration is given to the thought rather than crude materials and human exertion. The importance of knowledge-based economy stemmed from its role in cognitive knowledge and therefore, the advanced technology which is generated and produced rapidly in several fields. Accordingly, knowledge-based economy helps in spreading, employing and producing knowledge without limitation. Moreover, it achieves electronic exchange and makes a change within the old jobs. Additionally, it helps the tutorial institutions in development and creativity (Suhair, Inas & Ahlam, 2016). Mensah and Enu-Kwesi (2018) pointed out that a knowledge-based economy thrives on constructed advantages generated through well-planned recursive interactions among key actors within the economy.

Cooke and Leydesdorff (2006) stated that knowledge-based economy thrives on a constructed advantage, from technological trajectories and regimes, which emanate from interfacing economic development on a systems perspective. Leydesdorff (2012) further argued that a knowledge-based economy is analytically different from a knowledge economy therein within the former, codified knowledge is considered key to economic process and development, while within the latter, emphasis is placed on knowledge of workers, and hence tacit or embodied knowledge. A knowledge-based economy is one that uses knowledge for the primary motor of economic process. Basically, it is an economy, during which the most drivers of growth, wealth creation, and employment across all industries production, distribution, and use of data. Most especially, countries need knowledge-based economy, not only to create simpler domestic economies but also to require advantage of economic opportunities beyond their borders (Phale, Li, Mensah, Omari-Sasu & Musah, 2021).

The usage of information and knowledge, as expressed within the areas like business education, research development, and entrepreneurship, and skills of people, is now recognized together as one of the core drivers of growth, productivity, and competition within the global economy (World Bank Institute, 2007). Business education which encompasses several disciplines such as office management, accounting, marketing, entrepreneurship, human resource management and development, among others enables people to think, speak and behave in ways that support the expansion, efficiency and effectiveness of a corporation or several organizations (Ijirshar & Ayidiowu, 2015). Kaegon (2009) once stated that business educators must be able to offer their recipients functional education which will enhance performance, also as, assist them to contribute meaningfully to the knowledge-based economy of the country, but one who has highly developed business skills honed through years of experience in his field without basic education in business does well in contributing towards knowledge-based economy. Thus, the demand for business education is on the rise everywhere in the world because it prepares youths to be responsible and entering individuals, who become entrepreneurs or entrepreneurial thinkers by exposing them in real world experience where they are going to be required to think, take risks, manage circumstances and incidentally learn from the result (Olawolu & Kaegon, 2012).



Business education played an important role in knowledge-based economy, especially in areas which include the following: generation of employment/creation of job opportunities, industrial development, entrepreneurship strategy, poverty alleviation, promotion of the Nigerian economy and promotion of Nigerian culture and value (Ijirshar & Ayidiowu, 2015). One of the justifications for this study was that business education is an education that focused on skill building, development of students' creativity ideas, ability to do market research for venturing into new market-environment and also helps its students to turn ideas into goods and services that can command commercial purpose. Also, business education is discipline that prepares beneficiaries for gainful employment and sustainable livelihood (Ijirshar & Ayidiowu, 2015). However, records have shown that most of what Nigerians consumed is not made locally. One may begin to wonder while its difficulty for Nigeria as a country to meet her consumption locally or the country does not have required human capital with creativity skills for turning ideas into products and services or the country failed to invest in research development of ideas that can turn into novel development? Folorunso and Adebayo (2018) were of the opinion that with the improved contents of Business Education programme, the course comprised different areas with potentials of equipping the recipients with skills in Office Management, ICT Office Applications, Book-keeping/Accounting, Business Management, Marketing, Business Communication, Records management, among others, which are all necessary for the promotion, survival of business enterprises, also as required competencies needed for job place and career success towards knowledge-based economy. Acquisition of business education skills could bring out viable innovation ways of doing business and promotion of entrepreneurial novel ideas and this might better enhance through research development.

Research development brings out new innovation and an effort to seek out call at a scientific way. Evidence abound in the literature that modern economies of the world, that is, those who drives economic development was as a result of breakthrough in research and development (Kwon-Ndung, Kwon-Ndung & Migap, 2014). To rework a replacement or unique thought into a gainful product may be a difficult thing to try to do. Therefore, every prominent or great inventor needs an excellent entrepreneur and the other way around. Chester Carlson's invention of xerography would never become the remarkably profitable Xerox photocopying business if not for what Charles Ellis termed extreme entrepreneurship of Joe Wilson. Innovation has therefore bred a fruitful collaboration between universities and corporations in many parts of the planet. Fairly often this collaboration has become the space where the longer term is invented. Hence, modern economies are built with ideas and knowledge, the maximum amount like capital and labour. It is estimated that almost half of the United State of America GDP, for instance, is predicated on academic intellectual property (Kwon-Ndung, Kwon-Ndung & Migap, 2014). However, research development in Nigeria seems to be at lower level which could be as a result of poor development among the students.

### **Statement of the Problem**

The current economic situation in Nigeria is a source of concern to the government and stakeholders in the country. Nigeria is a country that exports her productivity gains and imported unemployment as a means of exchange; a country that believed much in foreign policies implementation as against its knowledge-based policies may find it difficult to achieve economic development that can translate into massive employment, reduction in poverty among her citizens and a sustainable standard of living. In Nigeria today, its natural crude oil is being exported for refined due to under-service nature of its refineries. One may begin to wonder what could bring Nigeria into this situation. Is it that the country lack number of people with intellectual capacity to turn around the economy for good or is it as a result of bad leadership or the country failed to



utilized her bulk of intellectual human capital with the number of federal, state and private universities. However, it is wrong to conclude that Nigeria has failed in her efforts towards achieving knowledge-based economy where her greater consumption will be made locally; this among the justification for the current study to empirically inquire into how business education and research development could bring about desire knowledge-based economy.

### **Purpose of the Study**

The purpose of this study is to examine the extent to which business education and research development could bring about knowledge-based economy. Specifically, the study sought to examine the:

1. Level of knowledge-based economy in South-West, Nigeria.
2. Causative factors affecting the achievement of knowledge-based economy.
3. Relationship between business education and knowledge-based economy.
4. Relationship between research development and knowledge-based economy.
5. Composite contribution of business education and research development towards achieving knowledge-based economy.

### **Research Questions**

The following research questions guided the study:

*Research Question 1:* What is the level of knowledge-based economy?

*Research Question 2:* What are the causative factors affecting knowledge-based economy?

### **Research Hypotheses**

The following research hypotheses were proposed to guide the study:

*Research Hypothesis 1:* There is no significant relationship between business education and knowledge-based economy.

*Research Hypothesis 2:* There is no significant relationship between research development and knowledge-based economy.

*Research Hypothesis 3:* There is no significant composite contribution of business education and research development towards achieving knowledge-based economy.

### **Literature Review**

#### ***Business Education***

Business education is one among the main components of technical and vocational education and training in Nigeria. In Nigeria, the discipline is obtainable at both the secondary and tertiary levels of education. Edokpolor and Egbri (2017) and Edokpolor and Oduma (2018) defined business education as any academic programme aimed at preparing recipients for career progression in various occupations and professions; equipping recipients with the necessary knowledge and skills for entrepreneurial career; and providing recipients with the skills and knowledge about business venturing.

Gidado and Akaeze (2014) defined Business education as a facet of total educational programme which provides the recipient with knowledge, skills, understanding and attitude needed to perform well within the business world as a producer or consumer of products and services. Furthermore, Osuala (2004) is of the opinion that Business education may be a broad area of information that deals with a nation's economic system and also identifies and explains the speed of



business contentment and knowledge that prepare individuals for effective participation as citizens, workers and consumers. Aliyu (2013) stated that the aim of Business education stresses the necessity for specialised instruction to organize students for career in business; fundamental instruction to assist students assume their economic roles as consumers, workers and citizens and background instruction to help students in preparing for professional careers requiring advanced study.

### **Research Development**

Research development is that the process of arriving at dependable solutions to problems through the planned and systematic collection, analysis and interpretation of knowledge (Chikwe, Ogidi, & Nwachukwu, 2015). Research and development or research development is oriented towards the discovering of the relationships that exist among the phenomena of the planet during which we live (Osuala, 2001). According to Ajoku (2006), research development aimed at looking for knowledge, truth, similarities and relationships, and therefore the process of finding solutions to problems through the systematic collection, analysis and interpretation of knowledge.

### **Knowledge-Based Economy**

Knowledge-based economy defined by Ogundeindea and Ejohwomub (2016) as that the production and services supported knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance, also as rapid obsolescence. They further argued that production tool as a primary resource for a knowledge-based economy and emphasizing human knowledge dominant role altogether production and repair activities. Okoli and Ochuba (2019) reiterated that the term knowledge-based economy was coined to reflect the critical role played by knowledge and innovation in economic development. The four essential pillars for the event of a knowledge-based economy include: Economic and Institutional regime operating within the country, Education and Skills, ICT Infrastructure and therefore the system for promoting innovation.

### **Theoretical Framework**

The theoretical framework for this paper is Knowledge spillover theory of entrepreneurship. The theory was postulated by Acs, Audretsch and Lehmann (2013). The knowledge spillover theory of entrepreneurship emphasizes the importance of intra-temporal spillover of tacit knowledge within an economy. That is, for knowledge or research output to contribute to innovation, and hence to economic process, it must function possible sources of entrepreneurial opportunities by moving from knowledge producers to knowledge users, particularly to entrepreneurial start-ups, otherwise the economy would not make significant gains from knowledge production. Thus, the character of tacit knowledge and therefore the importance of the knowledge to innovation make collaboration indispensable to the capacity of research and innovation to effectively and efficiently function as drivers of economic process and development. Hence, contrary to endogenous growth frameworks which do not explicitly link entrepreneurship to investment in new knowledge and knowledge spillover, the knowledge spillover theory of entrepreneurship illustrates entrepreneurship as a key mechanism which will enhance the effect of data investments in an economy; therefore, making it necessary for the promotion of research collaboration as a pedestal for research and innovation from an entrepreneurial purview.





## Method

### *Research Design*

A quantitative survey research design was adopted in this study. Quantitative survey research designs has been described as a non-experimental quantitative research design (Mitchell & Jolley, 2007) aiming at gathering data from group of individuals by way of questionnaire, and the results are generalized to the population (Ary, Jacobs & Sorensen, 2010).

### *Population and Sampling Procedure*

The population of the study included the entire academic staff and postgraduate students of Universities in South-West of Nigeria. Only government owned universities (federal and state) in the selected region (South-West) took part in the study. A total of four universities comprising one federal and three state owned universities were selected through the use of stratified random sampling technique. University of Lagos a federal university was selected; Lagos State University, Olabisi Onabanjo University and Ekiti State University were the three state owned universities selected. These universities were among those that have Business Education Programme as a discipline. A total of 665 respondents representing 62 academic staff and 603 postgraduate students were selected purposively cutting across all the selected universities. The Table 1 explained how sample size distributed across.

S/N	Universities	Academic Staff	Post-graduate students	Total
1.	Lagos State University	20(32.25)	201	221
2.	Olabisi Onabanjo University	17(27.41)	165	182
3.	Ekiti State University	12(19.35)	112	124
4.	University of Lagos	13(20.87)	125	138
	Total	62	603	665

### *Data Collection Instrument*

Self-developed questionnaire title: Business Education, Research Development and Knowledge-Based Economy Questionnaire was utilized for collecting the needed information for the study. The questionnaire was subdivided into five sections. **Section A:** This presented items on demographic characteristics of the respondents. **Section B:** Discussed items on the business education as acquisition of knowledge and skill. **Section C:** Embraced items on the level of research development and innovation. **Section D:** This section focused on the level of knowledge-based economy. **Section E:** Examined items relating to the causative factors affecting knowledge-based economy. However, the questionnaire was drawn based on the modified 4-scale.

### *Data Collection Instrument Validity and Reliability*

A copy of the instrument was made available to experts at the university level of education for face and content validation. After series of amendments, all the corrections were done before administration of the instrument on the respondents. However, a pilot study was conducted among ten business education lecturers in Tai Solarin University of Education, Ijagun, Ogun State, Nigeria. The information gathered were tested for reliability through the application of Pearson Product Moment Correlation Coefficient (PPMCC) and a reliability coefficient of 0.79 was reported. The

implication of this was that the instrument to certain extent would help the researchers in collecting data towards achieving goal and objective of the study.

### Data Collection Procedure

Researchers and research assistants directly involved in distributing questionnaire to the respondents because procedure and the reasons for the study were explained to the respondents and it took a month interval before completion of the exercises; after completion of questionnaire administration, a total of 500 copies were retrieved, while 165 copies missing. The analyses of the data were based on the success rate.

### Data Analysis

Mean through the aid of pie-chart was adopted in answering research questions. Mean was used in measuring average level of an item. Hypotheses 1 and 2 were tested using PPMCC. This is applicable for measuring the relationship between independent and dependent variables. Hypothesis 3 was tested using multiple regression analyses. This was used to measure the contribution or influence of independent variables on dependent variable.

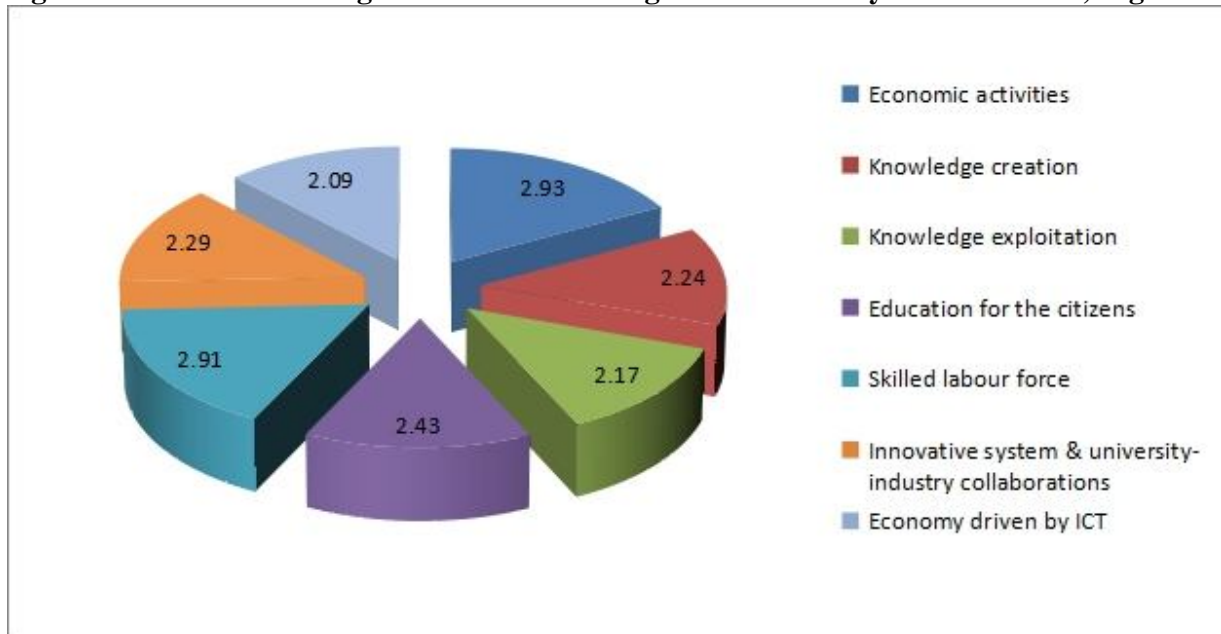
### Decision Rule

Any mean score of 2.5 and above was regarded as agree while any one below 2.5 regarded as disagree. For PPMCC and regression analysis, when p-value is less than significance level ( $p < .05$ ), the null hypotheses is rejected, otherwise, not accepted.

## Results

*Research Question 1:* What is the level of knowledge-based economy?

**Figure 1: Pie-chart showing the level of knowledge-based economy in South-West, Nigeria**

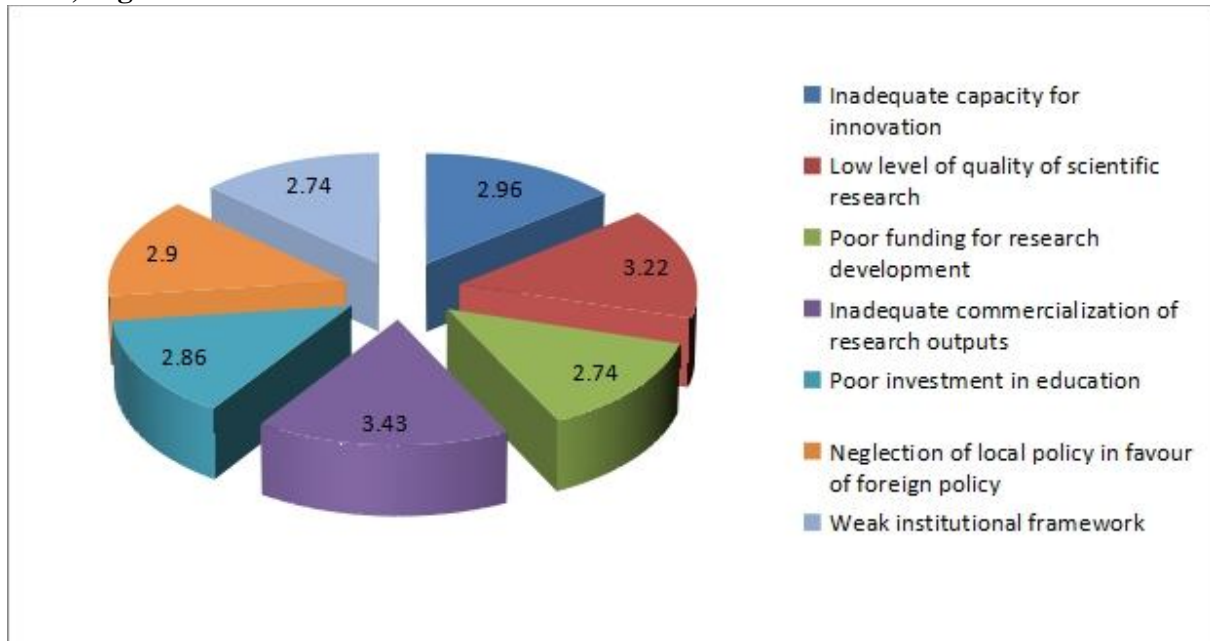


The above pie-chart revealed the results on the level of knowledge-based economy in South-West, Nigeria. Out of seven indicators of knowledge-based economy raised, only two (skilled labour

force and economic activities) were agreed with by the respondents, while rejecting five items were rejected as those mean items agreed were greater than bench mark of 2.50, while that disagreed less than 2.50. The implication of this result was that knowledge-based economy in Nigeria was still at lower level and more reason Nigeria as a country not yet to produce what her citizens consumed locally.

*Research Question 2:* What are the causative factors affecting knowledge-based economy?

**Figure 2: Pie-chart on the causative factors affecting knowledge-based economy in South-West, Nigeria**



The results from figure 2 indicated the causative factors affecting knowledge-based economy in South-West, Nigeria. The cluster mean was 2.98 which was greater than the bench mark of 2.50. This further implied that respondents agreed on inadequate capacity for innovation, low level of quality of scientific research, poor funding for research development, inadequate commercialization of research outputs, poor investment in education, neglect of local policy in favour of foreign policy and weak institutional framework as causative factors affecting knowledge-based economy in South-West, Nigeria.

### **Testing of Null Hypotheses**

*Research Hypothesis 1:* There is no significant relationship between business education and knowledge-based economy.





**Table 2: PPMCC results on the relationship between business education and knowledge-based economy**

Variables	N	Mean	Std. Dev	df	r <sub>value</sub>	p <sub>value</sub>
Business education		21.2840	3.10074			
Knowledge-based economy	500	58.2440	6.60816	3	.007	.0071

From Table 2, it was observed that there was significant relationship between business education and knowledge-based economy in the order of ( $r = 0.007$ ,  $p < .05$ ). On this premise, the null hypothesis was hereby rejected and the researchers concluded that there was significant relationship between business education and knowledge-based economy in South-West, Nigeria.

*Research Hypothesis 2:* There is no significant relationship between research development and knowledge-based economy.

**Table 3: PPMC results on the relationship between research development and knowledge-based economy**

Variables	N	Mean	SD	df	r	p
Research development		21.2878	3.10			
Knowledge-based economy	500	17.75	2.60	3	.022	.0039

Results from Table 3, observed that there was significant relationship between research development and knowledge-based economy in the order of ( $r = 0.022$ ,  $p < .05$ ). On this premise the null hypothesis was hereby rejected and the researchers concluded that there was significant relationship between research development and knowledge-based economy in South-West, Nigeria.

*Research Hypothesis 3:* There is no significant composite contribution of business education and research development towards achieving knowledge-based economy.

**Table 4: Regression results on the composite contribution of business education and research development towards achieving knowledge-based economy**

R = .345

R<sup>2</sup> = .119Adj R<sup>2</sup> = .114

Std. Error = 2.91919

ANOVA

Source of Variation	SS	df	MS	F-ratio	p
Regression	570.911	3	190.304	22.332	.000
Residual	4226.761	496	8.522		
Total	4797.672	499			

Table 4 showed that there was significant composite contribution of independent variables on the dependent variable;  $R = 0.119$ ,  $p < .05$ . The table further indicated 11.4%:  $\text{Adj: } R^2 = 0.114$ : that about 12% of the variance in knowledge-based economy was accounted for by the linear combination of the independent variables (business education and research development). The ANOVA results from the regression analysis showed that there was significant of the independent variables (business education and research development) the dependent variable (knowledge-based economy);  $F(3, 496) = 22.332$ ,  $p < .05$ .

## Discussion

The findings of the study based on research question 1 revealed that knowledge-based economy in Nigeria was still at lower level. This was in agreement with the findings of Adekemi (2015) who found that Nigeria knowledge-based economy was very low, most especially when compared with other developed countries of the world.

Based on research question 2, the findings showed that inadequate capacity for innovation, low level of quality of scientific research, poor funding for research development, inadequate commercialization of research outputs, poor investment in education, neglect of local policy in favour of foreign policy and weak institutional framework as significant causative factors affecting knowledge-based economy in South-West, Nigeria. These findings were in agreement with Henshaw (2020) that reiterated that economic development, low level of usage of skilled labour to drive economic activities, poor nature of research development, ineffectiveness in application of ICT for daily usage in running economic activities and lack of advancement in innovative capacity building for research-entrepreneurial activities were among the bane of impacting knowledge-based economy of most developing nations in the world.

Based on hypothesis 1, the findings of the study indicated that there was significant relationship between business education and knowledge-based economy in South-West, Nigeria. These findings were consonant with the findings of Ugwuogo (2012) who stated that if all things were put in place in business education programme, the programme has the capacity to build the



needed human capital development for a nation and directly enhanced the level of knowledge-based economy in the long run.

Based on hypothesis 2, the findings revealed that there was significant relationship between research development and knowledge-based economy in South-West, Nigeria. These findings were in agreement with the findings of Chikwe, Ogidi, and Nwachukwu (2015) who concluded that massive investment in research and development might bring about improvement in innovation systems and act as one of the predictors for knowledge-based economy in Nigeria.

Hypothesis 3 indicated that there was significant composite contribution of independent variables to the dependent variable; and that about 12% of the variance in knowledge-based economy was accounted for by the linear combination of the independent variables (business education and research development). These findings corroborated the findings of Ahmad, Batool, Iqbal and Shah (2021) who indicated that university lecturers/teachers intellectual capacity and innovation in research outputs could jointly enhance knowledge-based economy, while Oguejiofor and Umeh (2019) findings showed that the current status of business education programme in Nigeria helped students in skill building needed to participate in knowledge-based economy.

### **Conclusion**

Developed nations today enjoyed the rudiments of knowledge-based economy and more reasons their counterparts in the developing nations were focusing on the antidotes to achieved and sustained knowledge-based economy. This study examined the extent to which business education and research development could bring about knowledge-based economy in South-West, Nigeria. The following conclusively were drawn based on the findings of the study that knowledge-based economy in Nigeria was still at lower level, while inadequate capacity for innovation, low level of quality of scientific research, poor funding for research development, inadequate commercialization of research outputs, poor investment in education, neglect of local policy in favour of foreign policy and weak institutional framework are significant causative factors they affected knowledge-based economy in South-West, Nigeria; there was significant relationship between business education and knowledge-based economy in South-West, Nigeria; there was significant relationship between research development and knowledge-based economy in South-West, Nigeria and likewise there was significant composite contribution of independent variables on the dependent variable; and that about 12% of the variance in knowledge-based economy was accounted for by the linear combination of the independent variables (business education and research development).

### **Recommendations**

1. Nigeria can begin its transition process by leveraging on ICT and using this to enhance the standard of the business education programme, research development and innovation activities within the economy.
2. University management alongside the assistance of stakeholders in education should endeavour to focus more attention on business education programme as a discipline that trained its recipients for knowledge, skill and entrepreneurial development which could be better positioned to market knowledge-based economy.
3. More investment should be provided in business education through government, private sector and foreign collaboration towards developing the education to compete with their counterpart globally.
4. There should be improvement in university-industry collaboration to commercialize research outputs for further innovation gain.



5. The performance of the ICT sector in Nigeria also provides evidence to the very fact that leading Nigeria to her knowledge-based economy future would require the engagement (and in some cases, dominance) of the private sector.

## References

- Aboelegg, N. A. (2021). Impact of knowledge economy on economic growth in Rwanda: An empirical study during the period (2000-2019). *Science Journal for Commercial Research*, 4, 10-30. Retrieved from <https://sjsc.journals.ekb.eg>
- Acs, Z. J., Audretsch, D. B. & Lehmann, E. E. (2013). The knowledge spillover theory of entrepreneurship. *Small Bus Economics Journal*, 41, 757-773. Retrieved from <https://doi.org/10.1007/11187-013-9505-9>
- Adekemi, J. O. (2015). *Towards a knowledge-based economy: Challenges and opportunities for Nigeria*. International Conference on African Development Issues (CU-ICADI) 2015: Social and Economic Models for Development Track, 260-266. Retrieved from <https://core.ac.uk>
- Ahmad, S., Batool, Y. Iqbal, S. & Shah, M. (2021). Knowledge economy concepts and roles in perspectives of university teachers of Asian and European States. *Humanities and Social Sciences Reviews*, 9(3), 798-807. Retrieved from <https://mgesjournals.com>
- Ajoku, L. I. (2006). *Foundations of educational research and statistics*. Port Harcourt: Pearl publishers.
- Akpan, U. I. & Naboth-Odums, A. (2018). Business education skills for economic diversification for sustainable development in Nigeria: Implications for business education curriculum. *Nigerian Journal of Business Education (NIGJBED)*, 5(1), 283-292. Retrieved from <https://nigjbed.com.ng>
- Aliyu, M. M. (2013). *Subject method for business teachers*. Kaduna: Sunjo A.J. Global Limited.
- Amoor, S. S. (2010). The need to improve teacher quality in business education in Nigeria universities. *International Journal of Education Research*, 11(1), 1-11.
- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). *Introduction to research in education* (8<sup>th</sup> Ed.). United States: Wadsworth, Cengage Learning. Retrieved from [www.modares.ac.ir/uploads/Agr.Oth.Lib.12.pdf](http://www.modares.ac.ir/uploads/Agr.Oth.Lib.12.pdf).
- Barkhordari, S., Fattahi, M. & Azimi, N. A. (2018). The impact of knowledge-based economy on growth performance: Evidence from MENA countries. *Journal of Knowledge Economics*, 10, 1168-1182. Retrieved from <https://link.springer.com/article/10.1007/s13132-018-0522-4>
- Chikwe, C. K., Ogidi, R. C. & Nwachukwu, K. (2015). Challenges of research and human capital development in Nigeria. *Journal of Education and Practice*, 28(6), 44-47. Retrieved from <https://files.eric.ed.gov>
- Cooke, P. & Leydesdorff, L. (2006). Regional development in the knowledge-based economy: the construction of advantage. *Journal of Technology Transfers*, 31(1), 5-15. Retrieved from <https://ideas.repec.org>
- Danjumaa, I. & Raslib, A. (2013). Higher education and knowledge economy: A focus on Nigeria. *Journal of Technology*, 64(3), 87-91. Retrieved from <https://www.academia.edu/28583224/>
- Edokpolor, J. E., & Egbri, J. N. (2017). Business education in Nigeria for value re-orientation: A strategic approach for poverty alleviation and national development. *Journal of Educational Research and Review*, 5(3), 41-48. Retrieved from <http://sciencewebpublishing.net/jerr/archive/2017/May/Abstract/Edokpolor%20and%20Egbr i.htm>
- Edokpolor, J. E. & Oduma, C. (2018). Repositioning business education programme for post-oil boom economy. *International Journal of Vocational and Technical Education*, 10 (2), 14-23.



- Retrieved from <https://academicjournals.org/journal/IJVTE/article-full-text-pdf/0AF70FF56069>
- Folorunso, I. O., & Adebayo, T. O. (2018). Business education and national development: Issues and challenges. *Nigerian Journal of Business Education (NIGJBED)*, 5(2), 274-285. Retrieved from <http://www.nigjbed.com.ng/index.php/nigjbed/article/view/264>
- Gidado, S. D., & Akaeze, P. (2014). Role of business education in promoting entrepreneurship in Nigeria. *International Journal of Academic Research in Progressive Education and Development*, 4(3), 72-77. Retrieved from <https://ideas.repec.org/a/hur/ijarpe/v3y2014i4p72-77.html>
- Hamad, Y. N. A. & Shaili, V. (2019). *Knowledge economy and its implications in the Kingdom of Saudi Arabia*. Saudi Aramco & EMBA, College of Business Administration, Prince Mohammad Bin Fahd University (PMU). Retrieved from <https://archive.conscientiabeam.com>
- Henshaw, G. (2020). Knowledge-based economy: The nexus economic boom in Nigeria. The New Practice (TNP)- An Anderson collaborating firm. Retrieved from <https://tnp.com.ng/assets/images/uploads/Knowledge-Based-Economy-The-Next-Economic-Boom-in-Nigeria.pdf>
- Ijirshar, V. U. & Ayidiowu, S. L. (2015). The impact of business education on growth of SMES: A basic tool to national development. A paper being presented at 6th National Conference and Workshop Theme: Basic education as a Fundamental Tool to National Development 27th-31st July, Retrieved from <https://www.academia.edu>
- Kaegon, I. E. S. (2009). Entrepreneurship and education of youths for sustainable development in Nigerian tertiary institutions. *African Journal of Educational Research and Development*, 3(2), 133-141.
- Kwon-Ndung, E. H., Kwon-Ndung, L. & Migap, J. (2014). Research and innovation strategies for economic competitiveness and industrial growth: lessons for Nigeria. *European Journal of Business and Innovation Research*, 6(2), 56-76. Retrieved from <http://www.eajournals.org/wp-content/uploads>
- Leydesdorff, L. (2012). The triple helix, quadruple helix and an N-tuple of helices: explanatory models for analyzing the knowledge-based economy? *Journal of Knowledge Economy*, 3(1), 25–35. Retrieved from <https://link.springer.com>
- Mensah, M. S. B., & Enu-Kwesi, F. (2018). Research collaboration for a knowledge based economy: Towards a conceptual framework. Centre for Entrepreneurship and Small Enterprise Development (CESED), School of Business, College of Humanities and Legal Studies, University of Cape Coast, Cape Coast, Ghana. Retrieved from <https://triplehelixjournal.springeropen.com/articles/10.1186/s40604-018-0049-5>
- Mitchell, M. L., & Jolley, J. M. (2007). *Research design explained* (6<sup>th</sup> Ed.). Belmont, CA: Thompson Wadsworth. Retrieved from [www.steporebook.com/book/research-design-explained-6th-edition-96693-pdf.html](http://www.steporebook.com/book/research-design-explained-6th-edition-96693-pdf.html).
- National Open University of Nigeria (2008). *Business education methods*. Lagos: National Open University of Nigeria.
- Nwaogu, I. P. (2016). *Fostering knowledge-based economy through ICT and development (A measure in curbing the current economic recession in Nigeria)*. Proceedings of Faculty of Management Sciences NAU, Awka, International Conference on Managing Diversification for Sustainable Development in sub-saharan Africa. 8th – 10th November.
- Oguejiofor, C. S. & Umeh, U. U. (2019). The status of business education in promoting reliable and sound economic growth in the oil sector in Delta State. *Merits Research Journal of*





- Education and Review*, 7(3), 026-031. Retrieved from <https://www.ijrdo.org/index.php/bm/article>
- Ogundeinde, A. & Ejohwomub, O. (2016). Knowledge economy: A panacea for sustainable development in Nigeria. *Procedia Engineering*, 145, 790 – 795. Retrieved from <https://www.infona.pl>
- Okeke, B. S. (2004). *Qualitative research in education. Supervisors perspective*. Port Harcourt: Pam unique publishers.
- Okoli, D. I. & Ochuba, C. D. (2019). *Developing a knowledge-based economy through enhancing management of vocational and technical education in Nigeria*. The Asian Conference on Education Official Conference Proceedings. Retrieved from <http://25qt511nswf49iayd31ch80-wpengine.netdna-ssl.com>
- Olatunji, A. S. & Simplice, A. A. (2021). *Has knowledge improved economic growth? Evidence from Nigeria and South Africa*. African Governance and Development Institute, WP/21/059. Retrieved from <https://mpira.ub.uni-muenchen.de>
- Olawolu, O.E., & Kaegon, L.E.S. (2012). Entrepreneurship education as tool for Youth empowerment through Higher Education for global workplace in Rivers. A paper presented at the Seventh Regional Conference on Higher Education for a Globalized world organized by Higher Education Research and Policy Network (HERPNET): University of Ibadan, Ibadan Nigeria between 17th to 21st September.
- Osuala, E.C. (2001). *Introduction to research methodology*. Onitsha African - Fep Pub. Ltd.
- Osuala, E.C. (2004). *Foundation of vocational education* (5th ed). Enugu: Cheston Agency Ltd.
- Phale, K., Li, F. Mensah, I. A. Omari-Sasu, A. Y. & Musah, M. (2021). Knowledge-based economy capacity building for developing countries: A panel analysis in Southern African Development Community. *Journal of Sustainability MDPI*, 13, 1-28. Retrieved from <https://www.mdpi.com>
- Suhair, S. M. S., Inas, A. S. M. & Ahlam, M. H. A. (2016). The teacher's roles in light of knowledge economy from the perspective of the educational supervisors' in Palestine. *Journal of Education and Practice*, 26(7), 88-98. Retrieved from <https://iiste.org/Journals/index.php>
- Ugwuogo, C.C. (2012). Global competitiveness and quality assurance in business education in Nigeria. A paper presented at the 24th Annual National Conference of Association of Business Educators of Nigeria (ABEN) held at Federal Polytechnic, Nekede, Owerri from 16th – 20th October.
- World Bank Institute (2007). *Measuring knowledge in the world's economies, knowledge for development (K4D) programme*: Washington, DC, USA.