

# Exploring Library User Perception on the Link between Knowledge Economy and Sustainable Development

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**Abstract:** - This study explored library user perception on the link between knowledge economy and sustainable development. This study adopted the descriptive survey design of correlational type. The population of the study consisted of all library users who were randomly selected during the period of the study. In all, 250 library users agreed to participate in this study. Out of which, 200 of them completed the questionnaires as 30 questionnaires were not adequately completed and 20 respondents did not return their copies. The questionnaire was validated by two experts in library and information science disciplines while the reliability of the instrument was determined by conducting a pilot study among 30 library users at two faculty libraries at the Obafemi Awolowo University, Ile-Ife. The reliability test revealed a high level of inter-item consistencies. The data collected were analyzed using percentage distribution, mean and standard deviation, correlation, and regression. Findings revealed a significant positive relationship between the knowledge economy and sustainable development ( $r = 0.327$ ,  $P < .05$ ). The results further revealed that; education and training ( $\beta = 0.427$ ,  $t = 6.191$ ,  $p < .05$ ) and ICT ( $\beta = 0.322$ ,  $t = 5.172$ ,  $p < .05$ ) significantly influenced sustainable development. This study concluded that the ability of the key stakeholders in the knowledge economy should leverage on the intangible assets within the economy which will help to identify, create, manage and measure the successes and failures of the knowledge economy and how this can affect sustainable development

**Keywords:** Knowledge management practices, Knowledge economy, sustainable development

## I. INTRODUCTION

The consciousness of human activities all over the globe suggests that mankind now operates in the knowledge-driven economic space where knowledge and its application have replaced the factors of production such as land, labor, resources, or capital (Gloet & Terziowski, 2004); (Badii & Sharif, 2003). The main driver in the current global knowledge economy is knowledge. Knowledge has been described as insights, understandings, and practical know-how that people possess, the fundamental resource that allows people to function intelligently (Tengö, Brondizio, Elmqvist, Malmer, & Spierenburg, 2014). Thus, applying knowledge in its correct quantity will lead to improved sustainable development in all sectors of the economy. Opele (2017) reasoned that knowledge represents the decisive basis for

intelligent, competent behavior at the individual, group, and organization level.

### *Brief about Hezekiah Oluwasanmi Library*

The Central Library, known as Hezekiah Oluwasanmi Library consists of two multi-story wings strategically located in the heart of the campus. It has a seating capacity of 2,500 with the availability of internet access to books and journals. It is a depository for the publications of the United Nations and its Agencies including UNESCO, ILO, and ECA. **Hezekiah Oluwasanmi Library** is an **Academic** library. This library is affiliated with **Obafemi Awolowo University**. The Library collection includes over **708,255** titles and 762,000 volumes of monographs, government publications, theses, and audio-visual material, in addition to the subscription of over 1,000 journals in hard format. The library circulates **15,294** items per year. The Library collection is made easily accessible to users through the Online Public Access Catalogue (OPAC), as the library's circulation services are fully computerized. 297,352 records have been converted to electronic format as well as the digitization of its newspaper collection by online Computers Library Corporation Inc. (OCLC) of Ohio, USA.

### *Statement of the problem*

Sustainable development is a global phenomenon that has attracted the attention of policymakers, practitioners, and scholars in the environmental sciences, social and political sciences who are genuinely concerned about the growth of the economy, the environment, and the social community. However, despite the global concern, the link between the knowledge economy and sustainable development has not been well articulated in the literature even though; the economy has positioned knowledge as strategic competitive possession for economic growth and development. Part of the problem is that organizations are now challenged to combine knowledge in different units into the production of goods and services. Besides, the knowledge economy requires that every member of the society is willing to equip him or herself with relevant innovative knowledge for enhanced productivity thereby strengthening the nation's sustainable development. Also, the literature has shown that the knowledge economy helps organizations to identify their knowledge assets and

leverage on it for competitive advantage (Barba-sánchez & Calderón-milán, 2018). The current study, therefore, justified a link between knowledge economy and sustainable development from the perspectives of library users

#### *The objective of the study*

The main focus of this study is to explore library user perception on the link between knowledge economy and sustainable development. The specific objectives include:

1. To ascertain users' perception of the knowledge economy
2. To determine users' knowledge about the drivers of the knowledge economy
3. To ascertain users' perception of sustainable development

#### *Research Questions*

The following research questions were asked at the onset of this study

1. How do library users perceive the knowledge economy?
2. How much do library users know about the drivers of the knowledge economy?
3. What is the perception of library users about sustainable development?

#### *Hypotheses*

**Ho1:** Determine the relationship between the knowledge economy and sustainable development

**Ho2:** The drivers of the knowledge economy will not significantly influence sustainable development

## II. REVIEW OF LITERATURE

### *Overview of the Knowledge-Economy*

The knowledge economy refers to an economic system where knowledge is considered the currency of competitive advantage (Asoh, Belardo, & Neilson, 2002); (Onifade, Opele, & Adelowo, 2015); (Ekonomiczne, Naukowe, Ekonomicznego, & Issn, 2016). The knowledge economy is re-directing the way human activities are being carried out, it is an economy characterized by increased investment in human capital, information, and big data. The knowledge economy is driven by innovation and investment in Information and Communication Technologies (ICTs) as well as social capital.

The knowledge economy compels organizations to learn from their corporate strategy and encouraging a culture of learning from the formal and informal structure as well as intra and/or inter-organizational collaboration and open communication (Al-rahbi, 2008). Besides, scholars (Malik & Malik, 2008) have pointed out that knowledge transfers and sharing across hierarchy occurs through informal communication and relationship outside formal organizational structures.

The knowledge economy has made organizations realized that enhanced performance is anchored on the creation of new knowledge by merging knowledge with knowledge and knowledge with other organizational resources (Kaplan, Schenkel, von Krogh, & Weber, 2001).

The arrival of the knowledge economy gave birth to the concept of knowledge management practices in organizations (Wang, 2018). Knowledge management (KM) is a multidisciplinary discipline emerging from diverse fields such as artificial intelligence (Olsher, 2015), web technologies, collaborative technologies (Santoro, Vrontis, Thrassou, & Dezi, 2018), database technologies, help desk system, technical writing, library and information science, documentation and information management (Hodges, McLachlan, & Finn, 2009), electronic performance, organizational science and decision support system (Dalkir, 2005). It involves the creation, sharing, application, and use of tacit and explicit knowledge in an organization (Smith & Lumba, 2008).

The pioneers in the field of knowledge management have written to support the notion that knowledge management is critical to sustainable development. Kogut and Zander's (1992) reasoned that knowledge plays strategic importance as a source of competitive advantage.

Hedlund and Nonaka (1993) classified knowledge management into the individual, the group, the organization, and the inter-organization sphere of influence; they argued that the core of organization competitiveness, success or failure can depend on how the organizations create, transfer, share and exploit their knowledge assets. To Nonaka, (1994) knowledge (tacit and explicit) is created, transferred, and re-created in firms.

Similarly, Nonaka and Takeuchi (1995) singled out the power of the organization environment for effective knowledge creation and management.

Wiig (1997) maintained that KM encompasses the way knowledge is created, applied in problem-solving, and decision-making which is seen in the culture, technology, and procedures of an organization. To McAdam and McCreedy (1999) knowledge is personified within the organization not only through explicit programs but also through a process of social interchange. Stankoshy and Baldanza (2001) identified the enabling factors such as organization structure, organization culture, leadership, technology, and learning as being crucial for the survival of knowledge management initiatives in organizations. Therefore, sustaining the culture of the KM initiative in any organization requires that individuals and the organization must be consistent in the creation and management of knowledge for organizational competitiveness (Smith & Lumba, 2008).

### *Knowledge Management Practices*

Knowledge management practices have been viewed from different perspectives. Some conceptualized KM as a circular

activity leading to innovation and commercialization of organizational products and services (Ologbo, 2015); (Govindaraju, 2010). It has been documented that KM begins with knowledge creation (Sallán, Fernández, Álava, & Barrera-corominas, 2012); (Mitchell, Boyle, Mitchell, Boyle, & Mitchell, 2010); (Track, 2017), to knowledge acquisition (Paliszkievicz, Svanadze, & Jikia, 2017), to knowledge storage (Paliszkievicz et al., 2017), knowledge protection and retrieval (Chowdhury, 2004), knowledge sharing (Meyer, Hill, Hill, & Dow, 2017) and knowledge use for sustainable development (Ponce-Cueto & Rice Jr., 2016); (Smith & Lumba, 2008).

The primary objective of knowledge management practices is to be sure that an organizations' knowledge of the fact, sources of information, and solutions are readily available to all employees whenever it is needed (Opele, 2017).

Key knowledge management practices involve creation, sharing, and dissemination as well as acquisition and application and other activities that advance the business performance, sharing of organizational intelligence, and investment in innovative activities. It also involves capturing, distributing, and effectively using knowledge to solve organizational problems. The practices of effective knowledge management initiatives require organizations investing in ICT as indispensable tools needed for the creation and sharing of knowledge databases (Tong & Shaikh, 2010). Studies have shown that success or failure of KM initiatives in organizations has associated challenges and opportunities (Asoh et al., 2002).

#### *Challenges of knowledge management practices in the knowledge economy*

Knowledge management like any other human activities is encircled by a number of challenges (Hafeez, Alghatas, Foroudi, Nguyen, & Gupta, 2018) such include organization learning (Creation et al., 1997); (Jelinek, 2017) inadequate organizational supports for the creation of knowledge repository which enhances knowledge retrieval, sharing and use (Afif, 2018) poor organization structure and culture for knowledge management practices such as when management lacks interest in knowledge activities such as not supporting forum for staff retreat/training where knowledge, creation, sharing, dissemination and use takes (Abrahamson & Goodman-Delahunty, 2014); (Nwaigwe, 2015), leadership structure ((Donate & Sánchez de Pablo, 2015), (Sánchez, Lago, Ferrás, & Ribera, 2011), lack of cooperation among staff (Abramovici & Filos, 2011); (Opeke & Opele, 2014), unwillingness to share tacit knowledge and the fears for adverse effects of knowledge sharing practices (Esin Ergün and Ümmühan Avcı, 2018); (Assegaff, Hendri, Sunoto, Yani, & Kisbiyanti, 2017) and lack of trust (Sook & Ae, 2014); (Malik & Malik, 2008).

Scholars have identified widespread ICT infrastructures in the organization as a major challenge of implementing knowledge management practices in organizations as well as poor records keeping. Wajidi (2009) identified the power of information overload as one of the barriers to effective knowledge management practices in organizations. This is corroborated by (Badii & Sharif, 2003) in the study integrating Information and knowledge for enterprise innovation. Hitherto, every challenging situation has its associated opportunities. This is well articulated in the subsequent section of this paper.

#### *Opportunities for knowledge management practices in the knowledge economy*

Knowledge management practices have numerous opportunities in the same way it has challenges. Opportunity for knowledge management practices includes making people understand that knowledge is a strategic competitive tool for gaining a competitive advantage over competitors, the act of knowledge creation, sharing and application (Hafeez et al., 2018); Helping organizations to overcome development obstacles, and thus narrowing the knowledge gap among staff (Afif, 2018).

Knowledge management practices in organizations help to identify business problems and developing relevant strategies for effective management of such problems; it helps organizations to create the knowledge needed for sustaining knowledge management initiatives, encourages a community of practice, and positive organizational culture involving access to organizational knowledge for sustainable growth and productivity. Wajidi (2009) argued that 'KM concerns itself with not just tapping into corporate memory, but also with corporate skills and existing intellectual capital'. Practicing knowledge management. The benefit of using multiple approaches in managing knowledge at the organizational level is that their use gives a richer basis for understanding; more comprehensive understandings and heightened validity of results brought by these methods and overlapping measures.

Every user that visits the library has a reason for doing so (Adetoro, 2008). Come visit the library to read, while others have the intention to share knowledge with colleagues (Ganiyu, Airen, & Oluwafemi, 2014). However, the opinion of each member count in the overall objective of the group. A similar experience is often achieved when it comes to user perception about the current knowledge economy and sustainable development (Ekonomiczne et al., 2016).

As argued earlier, a major element of the current knowledge economy is knowledge management practices. The knowledge economy by extension sets the pace for sustainable development which counters around the social community, the environment, and the economy at large (Loffler, 1998).

#### *Sustainable Development*

The goal of sustainable development is a global goal that affects the entire countries of the world regardless of size in terms of population growth, sociopolitical, and religious

differences (Antucevičienė, 2003). Sustainable development goal refers to a development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Obamuyi, Adekunjo, & Ogunleye, 2013). According to many scholars, sustainable development has three major elements; economy (Costi, 1998), environment, and social community (Rahman, Tay, & Aziz, 2016).

The economic sustainability is concerned with economic growth and development in all sectors of the economy; the environmental sustainability emphasized the need for environmental protection that guarantee ecological sustainability (Schögggl, Baumgartner, & Hofler, 2017) while the social sustainability highlights the need for social justice, improved standard of living, equality, and freedom for all citizens regardless of political affiliation and social status (Podașcă, 2016).

### Methods

This study adopted the descriptive survey design of correlational type. The population of the study consisted of all library users who were randomly selected during the period of the study. In all, 250 library users agreed to participate in this study. Out of the 250 respondents, 200 of them completed the questionnaires which were found useful as 30 questionnaires were not adequately completed and 20 respondents did not return their copies. Questionnaires were the main instrument for data collection for the study. The questionnaire was validated by two experts in library and information science disciplines while the reliability of the instrument was determined by conducting a pilot study among 30 library users at two faculty libraries at the Obafemi Awolowo University, Ile-Ife.

The questionnaire was tested for reliability (see table 1) using Cronbach's alpha test. The reliability test revealed a high level of inter-item consistencies. The data collected were analyzed using percentage distribution, mean and standard deviation, and correlation. The correlation and regression analysis were used to test the formulated hypotheses at .05 level of significance. Statistical package for social science (SPSS) version 22 was used for data analysis. The characteristics of the participants are presented in table 2

## III. RESULTS AND INTERPRETATION

Table 1: Reliability Test

| Variables measured           | Number of Items | Cronbach's alpha scores based on standardized items |
|------------------------------|-----------------|---|
| Knowledge economy parameters | 12              | 0.83  |
| Drivers of knowledge economy | 15              | 0.79  |
| Sustainable development      | 8               | 0.77  |

From table 1, the results indicate a high level of inter-item consistencies among the variables in the study. In other words, the instrument was good enough to give what it was meant for. Hence, the instrument was reliable for the study.

Table 2: Socio-Demographic Characteristics

| Parameter                        | Classification                       | Frequency  | Percentage   |
|----------------------------------|--------------------------------------|------------|--------------|
| <b>Gender</b>                    | Male                                 | 108        | 54.0         |
|                                  | Female                               | 92         | 46.0         |
|                                  | <b>Total</b>                         | <b>200</b> | <b>100.0</b> |
| <b>Highest Educational Level</b> | Post-Secondary non-degree            | 39         | 19.5         |
|                                  | Undergraduate                        | 136        | 68.0         |
|                                  | Postgraduate                         | 25         | 12.5         |
|                                  | <b>Total</b>                         | <b>200</b> | <b>100.0</b> |
| <b>Category of respondents</b>   | Students                             | 108        | 54.0         |
|                                  | Non-academic staff                   | 61         | 30.5         |
|                                  | Academic staff                       | 11         | 5.5          |
|                                  | Staff of other knowledge institution | 4          | 2.0          |
|                                  | Self-employed                        | 14         | 7.0          |
|                                  | Artisan                              | 2          | 1.0          |
|                                  | <b>Total</b>                         | <b>200</b> | <b>100.0</b> |

Source: field survey 2020

Table 2 revealed the rich socio-demographic characteristics of the respondents. It shows a ratio of 54:46 of male and female respondents. That is, the majority of the library users 54% were male while females accounted for 46%. Furthermore, the table shows an interesting distribution of the users with regards to educational qualification, it revealed that 19.5% of the respondents were students from other Post-Secondary non-degree institutions while undergraduates accounted for 68% and postgraduates 12.5%. This suggests that the majority of the library users were students' undergraduates. The table also revealed that categories of library users included students 54%, non-academic staff 30.5%, academic staff 5.5% staff of other institutions 2.0% while self-employed and artisans accounted for 8%.

### Analysis of research questions

*Research Question One: How do the library users perceived knowledge economy?*

Table 3: Descriptive analysis of knowledge economy parameters

| Survey Items  | Strongly Agree              | Agree     | Strongly Disagree | Disagree | Not Sure | Mean rank | SD   |
|---|-----------------------------|-----------|-------------------|----------|----------|-----------|------|
| Knowledge economy is driven by innovation and investment in Information and Communication Technologies (ICTs) as well as social capital.  | 101(50.5)                   | 89(44.5)  | 10(5.0)           | 0(0.0)   | 0(0.0)   | 4.45      | 0.59 |
| An economy that requires that every members of the organization must be adequately equipped with relevant innovative knowledge for enhanced productivity  | 97(48.5)                    | 89(44.5)  | 12(6.0)           | 2(1.0)   | 0(0.0)   | 4.41      | 0.65 |
| The knowledge economy compels organizations to learn from their corporate strategy and encouraging culture of learning from formal and informal structure as well as intra and/or inter organizational collaboration and open communication | 104(52.0)                   | 83(41.5)  | 8(4.0)            | 0(0.0)   | 5(2.5)   | 4.40      | 0.79 |
| In the current era, knowledge represents the decisive basis for intelligent, competent behaviour at the individual, group and organization level.   | 90(45.0)                    | 103(51.5) | 1(0.5)            | 4(2.0)   | 2(1.0)   | 4.38      | 0.70 |
| An economy that helps to apply knowledge in its correct quantity will lead to competitiveness and enhance individual and organizational performance   | 86(43.0)                    | 102(51.0) | 12(6.0)           | 0(0.0)   | 0(0.0)   | 4.37      | 0.60 |
| It is an economy characterized by increased investment in human capital, information and big data   | 99(49.5)                    | 81(40.5)  | 17(8.5)           | 2(1.0)   | 1(0.5)   | 4.37      | 0.73 |
| The economy helps organizations to identify their knowledge assets and leverage on it for competitive advantage   | 93(46.5)                    | 91(45.5)  | 13(6.5)           | 1(0.5)   | 2(1.0)   | 4.36      | 0.72 |
| The economy that has positioned knowledge as strategic competitive possession for organizational performance and productivity   | 87(43.5)                    | 99(49.5)  | 13(6.5)           | 0(0.0)   | 1(0.5)   | 4.35      | 0.65 |
| The knowledge economy has made organizations realized that enhanced performance is anchored on the creation of new knowledge by merging knowledge with knowledge and knowledge with other organizational resources                          | 93(46.5)                    | 85(42.5)  | 16(8.0)           | 2(1.0)   | 4(2.0)   | 4.31      | 0.82 |
| An economy that encourage knowledge transfers and sharing across hierarchy occurs through informal communication and relationship outside formal organizational structures.   | 74(37.0)                    | 103(51.5) | 13(6.5)           | 8(4.0)   | 2(1.0)   | 4.19      | 0.81 |
| An economy that is re-directing the way human activities are being carried out,   | 75(37.5)                    | 105(52.5) | 4(2.0)            | 5(2.5)   | 11(5.5)  | 4.14      | 0.99 |
| An economic system where knowledge is considered the currency of competitive advantage  | 69(34.5)                    | 102(51.0) | 14(7.0)           | 10(5.0)  | 5(2.5)   | 4.10      | 0.91 |
|   | <b>Weighted Mean = 4.32</b> |           |                   |          |          |           |      |

Source: field survey 2020

As seen in tables 3, the first construct with the highest mean was knowledge economy is driven by innovation and investment in Information and Communication Technologies (ICTs) as well as social capital (mean = 4.45); the second construct with the highest mean was An economy that requires that every member of the organization must be adequately equipped with relevant innovative knowledge for enhanced productivity (mean = 4.41), the third-highest mean, the knowledge economy compels organizations to learn from their corporate strategy and encouraging a culture of learning from the formal and informal structure as well as intra and/or inter-organizational collaboration and open communication (mean = 4.40). Other constructs include in the current era, knowledge represents the decisive basis for intelligent, competent behavior at the individual, group, and organization level. (mean = 4.38), an economy that helps to apply knowledge in its correct quantity will lead to competitiveness and enhance individual and organizational performance (mean = 4.37); it is an economy characterized by increased investment in human capital, information and big data (mean = 4.37); the economy helps organizations to identify their knowledge assets and leverage on it for competitive advantage (mean = 4.36); the economy that has positioned knowledge as

strategic competitive possession for organizational performance and productivity (mean = 4.35); the knowledge economy has made organizations realized that enhanced performance is anchored on the creation of new knowledge by merging knowledge with knowledge and knowledge with other organizational resources (mean = 4.31); an economy that encourage knowledge transfers and sharing across hierarchy occurs through informal communication and relationship outside formal organizational structures (mean = 4.19); an economy that is re-directing the way human activities are being carried out, (mean = 4.14) while the construct with the lowest means score was an economic system where knowledge is considered the currency of competitive advantage (mean = 4.10).

Overall, the weighted mean of 4.32 on the scale of 5 points implies a high level of library users' perceived knowledge economy. This means that the concept of the knowledge economy is not new to the majority of the respondents.

It also suggests that the majority of them believe the knowledge economy and are willing to be part of its sustainability for increasing knowledge and contribute to the growth of the economy

*Research Question Two: How much do library users know about the drivers of knowledge economy?*

Table 4. Descriptive analysis of drivers of the knowledge economy

| S/N      | Drivers of the knowledge economy  | Strongly Agree             | Agree     | Strongly Disagree | Disagree | Not Sure | Mean rank | SD   |
|----------|---|----------------------------|-----------|-------------------|----------|----------|-----------|------|
| <b>A</b> | <b>Economic performance</b>   | <b>Average Mean = 4.01</b> |           |                   |          |          |           |      |
| 1.       | General increase in the economy   | 67(33.5)                   | 104(52.0) | 10(5.0)           | 10(5.0)  | 9(4.5)   | 4.05      | 1.00 |
| 2.       | There is increase in per capital GDP growth                                   | 62(31.0)                   | 113(56.5) | 8(4.0)            | 5(2.5)   | 12(6.0)  | 4.04      | 1.00 |
| 3.       | In knowledge economy, there is increase in GDP growth                         | 55(27.5)                   | 115(57.5) | 8(4.0)            | 8(4.0)   | 14(7.0)  | 3.95      | 1.05 |
| <b>B</b> | <b>Government institution and economic incentives</b>                         | <b>Average Mean = 3.98</b> |           |                   |          |          |           |      |
| 1.       | Knowledge economy has increase government effectiveness                       | 68(34.0)                   | 101(50.5) | 14(7.0)           | 9(4.5)   | 8(4.0)   | 4.06      | 0.98 |
| 2.       | Increase economic incentives  | 69(34.5)                   | 97(48.5)  | 10(5.0)           | 14(7.0)  | 10(5.0)  | 4.01      | 1.06 |
| 3.       | There is regulation quality   | 60(30.0)                   | 94(47.0)  | 17(8.5)           | 17(8.5)  | 12(6.0)  | 3.87      | 1.12 |
| <b>C</b> | <b>Education and Training</b>   | <b>Average Mean = 4.25</b> |           |                   |          |          |           |      |
| 1.       | Knowledge economy has brought increase information literacy rate among people | 94(47.0)                   | 89(44.5)  | 12(6.0)           | 2(1.0)   | 3(1.5)   | 4.35      | 0.77 |
| 2.       | Increase tertiary enrolment rate  | 84(42.0)                   | 97(48.5)  | 9(4.5)            | 6(3.0)   | 4(2.0)   | 4.26      | 0.84 |
| 3.       | Increase secondary enrolment rate   | 81(40.5)                   | 87(43.5)  | 17(8.5)           | 7(3.5)   | 8(4.0)   | 4.13      | 0.99 |
| <b>D</b> | <b>Information and Communication Technology (ICT)</b>                         | <b>Average Mean = 4.21</b> |           |                   |          |          |           |      |
| 1.       | There is increase telephone per 1000 people                                   | 94(47.0)                   | 89(44.5)  | 8(4.0)            | 4(2.0)   | 5(2.5)   | 4.31      | 0.85 |
| 2.       | Internet users per 1000 people  | 88(44.0)                   | 92(46.0)  | 8(4.0)            | 5(2.5)   | 7(3.5)   | 4.25      | 0.92 |
| 3.       | Computers per 1000 people   | 72(36.0)                   | 94(47.0)  | 17(8.5)           | 10(5.0)  | 7(3.5)   | 4.07      | 0.98 |
| <b>E</b> | <b>Research and development</b>   | <b>Average Mean = 3.67</b> |           |                   |          |          |           |      |
| 1.       | Researchers in R&D per 1,000,000 inhabitants                                  | 59(29.5)                   | 94(47.0)  | 17(8.5)           | 3(1.5)   | 27(13.5) | 3.77      | 1.27 |
| 2.       | Total expenditure for R&D as % of GDP   | 64(32.0)                   | 72(36.0)  | 19(9.5)           | 16(8.0)  | 29(14.5) | 3.63      | 1.38 |
| 3.       | Scientific and technical journal articles produced per 1,000,000 inhabitants  | 68(34.0)                   | 72(36.0)  | 12(6.0)           | 11(5.5)  | 37(18.5) | 3.62      | 1.47 |

Source: field survey 2020

Table 4 revealed that the first driver with the highest means was Education and Training (mean = 4.25); this was closely followed by Information and Communication Technology (ICT) (mean = 4.21). The third construct with the highest mean was Economic performance (mean = 4.01). Other constructs and/or drivers of the knowledge economy are government institutions and economic incentives (mean =

3.98) and research and development (mean = 3.67). Overall, the perception of the library users on the drivers of the knowledge economy was equally high. Indicating that none of the drivers of the knowledge economy was rated below the mean of 3.5 on the scale of 5 points.

*Research Question Three: What is the perception of the library users about sustainable development?*

Table 5: Descriptive analysis of the parameters of Sustainable Development

| s/n | Survey Items   | Strongly Agree              | Agree    | Strongly Disagree | Disagree | Not Sure | Mean rank | SD   |
|-----|--|-----------------------------|----------|-------------------|----------|----------|-----------|------|
| 1.  | The economic sustainability is concerned with economic growth and development in all sectors of the economy.   | 102(51.0)                   | 84(42.0) | 8(4.0)            | 0(0.0)   | 6(3.0)   | 4.38      | 0.82 |
| 2.  | Social sustainability highlights the need for social justice, improved standard of living, equality and freedom for all citizens regardless of political affiliation and social status | 92(46.0)                    | 90(45.0) | 6(3.0)            | 6(3.0)   | 6(3.0)   | 4.28      | 0.90 |
| 3.  | The environmental sustainability emphasised the need for environmental protection that guarantee ecological sustainability.  | 84(42.0)                    | 97(48.5) | 10(5.0)           | 4(2.0)   | 5(2.5)   | 4.26      | 0.85 |
|     |  | <b>Weighted Mean = 4.31</b> |          |                   |          |          |           |      |

Source: field survey 2020

Table 5 revealed that the first construct ranked highest among others was The economic sustainability is concerned with economic growth and development in all sectors of the economy (mean = 4.38), the second construct with the highest mean score was Social sustainability highlights the need for social justice, improved standard of living, equality, and freedom for all citizens regardless of political affiliation and social status (mean = 4.28) while the means score for The environmental sustainability emphasized the need for

environmental protection that guarantee ecological sustainability was (mean = 4.26). In all, the perception of the library users about sustainable development was high with a weighted mean of 4.31 on the scale of 5 points.

*Testing of hypothesis*

**H<sub>01</sub>:** Determine the relationship between knowledge economy and sustainable development

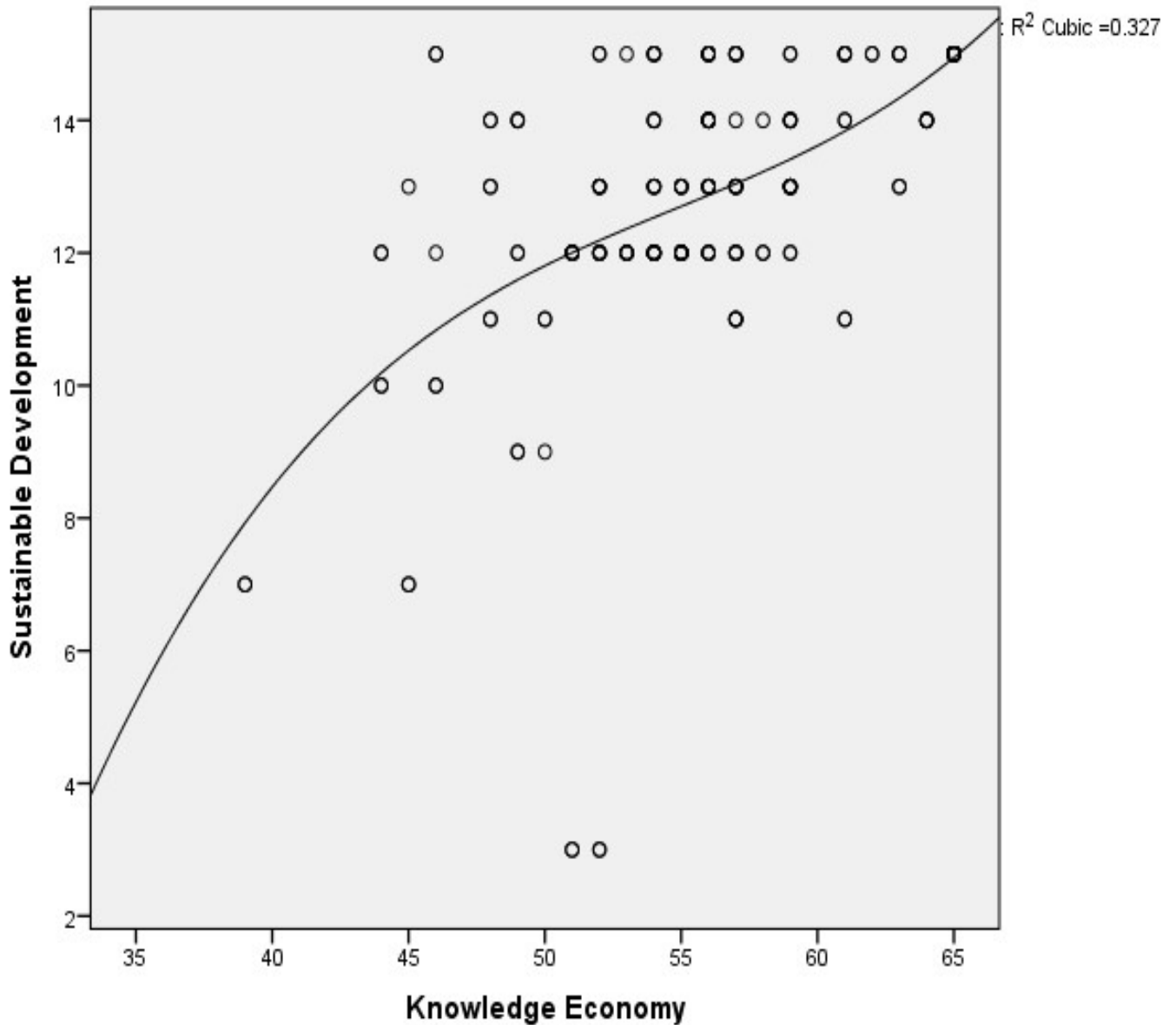


Figure 1: showing the relationship between knowledge economy and sustainable development

Figure 1 revealed a significant positive relationship between knowledge economy and sustainable development ( $r = 0.327$ ,  $P < .05$ ). This suggests that a unit increase in the knowledge economy will positively affects sustainable development.

**H<sub>02</sub>:** The drivers of knowledge economy will not significantly influence sustainable development

Table 6: regression analysis showing the influence of the drivers of knowledge economy on sustainable development

| Drivers of knowledge economy                   | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|--|-----------------------------|------------|---------------------------|--------|------|
|  | B                           | Std. Error | Beta                      |        |      |
| (Constant)                                     | 2.126                       | .678       |                           | 3.137  | .002 |
| Economic performance                           | .086                        | .057       | .108                      | 1.515  | .131 |
| Government institution and economic incentives | .063                        | .058       | .078                      | 1.086  | .279 |
| Education and training                         | .427                        | .069       | .410                      | 6.191  | .000 |
| Information and Communication Technology (ICT) | .322                        | .062       | .341                      | 5.172  | .000 |
| Research And Development                       | -.044                       | .038       | -.074                     | -1.163 | .246 |
| a. Dependent Variable: Sustainable Development |                             |            |                           |        |      |
| <b>Model Summary</b>                           |                             |            |                           |        |      |
| Model  | R                           | R Square   | Adjusted R Square         | F      | sig  |
| 1  | .757 <sup>a</sup>           | .573       | .562                      | 52.024 | .000 |

Table 6 revealed that the five drivers of the knowledge economy explained 56.2% of the variance explained in the sustainable development. It revealed that the f-statistics (5,194) = 52.024) with its corresponding probability of 0.000 indicated that the model is statistically fitted and significant. This means there is a strong relationship between the knowledge economy and sustainable development. In addition, the table revealed that; the two drivers of the knowledge economy; Education and training ( $\beta = 0.427$ ,  $t = 6.191$ ,  $p < .05$ ) and ICT ( $\beta = 0.322$ ,  $t = 5.172$ ,  $p < .05$ ) significantly influenced sustainable development. Implying that sustainable development relied heavily on another thing on the knowledge economy.

#### IV. CONCLUSION

This paper argued that sustainable development relies to a large extent on the knowledge-driven economy. Thus, the ability of the key stakeholders in the knowledge economy to leverage on the intangible assets within the economy will help to identify, create, manage and measure the successes and failures of the knowledge economy and how this can affect sustainable development. This requires developing a national framework for intellectual capital and sustaining the country's knowledge management initiatives by creating an enabling environment that will encourage the citizen's involvement in the decision making process at local and national levels of development.

#### V. RECOMMENDATIONS

1. For the libraries in our knowledge institutions to encourage knowledge management practices which is a by product of the knowledge economy, they must all support this initiative and continuous practice of KM
2. The policymakers, in particular, should encourage the practice and provide adequate support (financial and non-financial) were necessary as motivation for the continual practice of KM thereby enhancing sustainable development in Nigeria

3. Regular provision of video and audio copies of various productive engagement and deliberations both locally and nationally should be share among the productive teaming ages group in Nigeria for adequate diffusion and use
4. Senior citizenry should make themselves available to mentor the younger citizens so that the knowledge economy can be boosted
5. Government at all levels should establish sections and division for knowledge sharing and idea creation in each senatorial district in Nigeria
6. Government and key stakeholders in Nigeria they should support the deployment of ICT infrastructure in Nigeria knowledge institutions for the proper achieving of the knowledge assets for present and future use

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