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The Role of University Library for enhanced University-Industry Relationship

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Abstract

University system is the soul of the society due to the society's dependence on it for direction. The two has a symbiotic relationship. They are expected to solve society's problems through provision of knowledgeable and well behaved individuals, high level skilled manpower for the workforce and also researches and innovations The University Library is vested with the responsibility of providing needed information materials to achieve this. In developing countries like Nigeria, employers of labour often complain of the un-employability of our university graduates as well as research results not being adopted by industries. A poor university-industry linkage is evident in Nigeria. There is a disconnect between the universities and the industries that they produce the skilled manpower and research reports. The paper therefore examined the university library roles for enhanced university-industry relationship. The concepts of university, industry and university library was looked at and a review of literature on university-industry relationship was done,

Key Words: University, Industry, Relationships, Linkages, collaborations, University Library.

Introduction

Universities are at the top echelon of the tertiary institutions listing. They are regarded as ivory towers, centers of excellence etc. The university system is therefore the heart of any

society considering their importance in solving society's problems through provision of knowledgeable and well behaved individuals, high level skilled manpower for the workforce as well as researches and innovations. However, it is no longer news that employers of labour often complain of the un-employability of our university graduates as well as research results not being adopted by industries. This is as a result of the disconnect between the universities and the society (industries) that they produce the skilled manpower and research reports for. Any disconnect between the trainers of industrial skilled manpower and the industrial sector is an occurrence that should not be allowed to stay or better still an occurrence that should be corrected immediately. This is because it affects the growth and development of the society. According to Durosaro (in Yusuf and Olowo 2015) in some cases the course contents of the study areas of the graduates are at variance with specific needs of the cognate industry. This variance is as a result of this disconnect. This is in line with the position of Ssebuwufu, Ludwick and Beland (in Adepoju and Adedeji 2016) that the skills, knowledge and training students at many African universities do not prepare them adequately to meet the requirements of industries and the job market because of the gap that exist between the two. Since the universities are producing for the industries, there is need for them to teach the students the requisite skills needed by these industries so that they do not end up wasting fund and time producing un employable graduates or graduates the industries will spend additional fund to re-skill.

This linkage or relationship can be achieved through reaching out, opening doors for talks with stakeholders, producing educational society/national driven curriculum. The achieved collaborations will lead to various MoU's signing. This will be of benefit to both sides in terms of human capacity building, technology transfer, consulting services, and research grants, producing of graduate entrepreneurs, and increased funding among others for the Universities. We are in a dynamic world where knowledge/information is the driving factor with rapid innovations and trends and as such requires constant updating of one's knowledge and skills so as to be in tandem with the rapidity of the dynamism. The curriculum of our university education should be reviewed periodically with relevant stakeholders making contributions. The curriculum is to be delivered to the students using necessary and relevant information materials provided by the university library. If the curriculum is right the library will provide right information materials to enhance teaching/learning and research in the university, hence the need for librarians to be involved in the curriculum process, from development to implementation.

The university-industry linkages should be a symbiotic one where each understands and accepts the need for one another, for example as far as producing skilled labour is concerned, the university needs the input of the industry through the curriculum and some established functional feedback mechanisms, while the university has the leverage of breaking new grounds and redirecting some of the activities of the industry through research, they need to know the problems of these industries as well as the industries funding their researches and putting the research results to use. On the other hand, libraries are responsible for the provision and dissemination of recorded knowledge/information with which these universities train their graduates and carry out researches, it also have the capacity to relate the research out puts of the university to the society and vice-versa. University libraries over the years have been facing the challenge of poor funding, hence they are not as advanced as their counterparts in developed countries, Government on the other hand have been trying its best through some intervention funds like the tetfund to satisfy the university libraries. But the libraries can take care of

themselves through linkages and established relationships with the society. How well has the university libraries keyed into this?.

Universities exist to train skilled labour and conduct researches aimed at solving societal problems. These tasks, they have been performing so well from inception until recently, perhaps in this knowledge economy era where innovations and trends have a breath taking rapid rate. Industries are complaining that university graduates they employ do not have the skills they need, thereby causing them huge budget to re-skill them, research reports hardly make it to the industries for innovation and solutions to our challenges, some Universities cry for fund in various forms which with proper collaborations the industries can help them alleviate their financial problems. These situations are not healthy both for the Universities and the society as it increases the rate of unemployed graduates in society, poor industrial output, poor funded universities, in fact general economic and technological growth of the country is affected. This has been of concern to stakeholders over the years. Libraries are responsible for the provision and dissemination of recorded knowledge/information with which these universities train their graduates and carry out researches, and should also feed the university community with information/knowledge from the industries, more so in this knowledge age propelled by information. It is therefore the intention of this paper to do a conceptual analysis of university, industry and university library, it will also do a review of literature on university-industry linkages, examine how university libraries are to establish relationship with the society to solve their challenges mostly associated with poor funding and by implication creating university-industry relationship. To the best of the writer's knowledge no paper have been done on library and university-industry relationship hence this paper provides opinions believed to fill this gap and contribute to knowledge.

Conceptual Framework

The concept of University

University, according to Manoharan (2016) is an institution of higher education and research which grants academic degrees in a variety of subjects. Ayanyemi and Ajayi (2016) said that a modern University is an institution of higher education and research which grants academic degrees at bachelor, master and doctorate in different disciplines. Ajadi in Ayanyemi and Ajayi (2016) defined University as a place where skilled manpower of various capacities are being trained and also a means of developing human capital required to sustain the economy. In addition, Mamuh in Ayanyemi and Ajayi (2016) sees University as a community of teachers and scholars, that are basically the foremost research and advanced training agencies in every society at all times since their establishment in ancient times. Susan and Raju (2015) describes University as an important storehouse of current and advance levels of knowledge in various fields and that in a knowledge society, industries are the main users and beneficiaries of such knowledge.

According to Anuswedha (2015) Universities are recognized as sources of knowledge creation, innovation and technological advances. Across the globe, they are being positioned as strategic assets in innovation and economic competitiveness and as problem solvers for socio-economic issues affecting their countries. Anuswedha therefore sums up that universities are central players in economic development of any country. While to Adeniyi (2015) a University is an institution of higher learning that provides training, teaching and research opportunities as

well as community development services. Obayan (2012) quoted John Henry Newman as having talked about a University some 120 years ago as “as being a place where inquiry is pushed forward, and discoveries are verified and perfected and rashness rendered innocuous and error exposed by the collision of mind with mind and knowledge with knowledge.” Also describing a University, Prof. David Eastwood, the Vice Chancellor of University of Birmingham, says it is a place where knowledge is created, challenged, understood and interpreted (Adediran & Gbadamosi, 2012). The place of the university in any society cannot be overemphasized, since it is the producer of various disciplines and professionals the society needs to function well, ranging from medics, engineering, education, librarian and information science, law, scientists, psychology, historians etc. University can therefore be defined as the height of the societies’ knowledge and research clearing house.

Industry

Industries drive society’s economy across various sectors and capacities. Industry according to Encyclopedia Britannica (2011) is a group of productive enterprises or organizations that produce or supply goods, services or sources of income. It went further to classify industry into three namely; primary (agriculture, forestry, mining, fishing etc-producers of raw materials), secondary (manufacturing industry which makes use of raw materials produced by the primary industry) and tertiary industry (this is the service industries like, the banks, transportation, tourism, insurance, professional services, legal, consulting etc). Similarly, Encyclopedia Americana (2006) defines an industry as a group of enterprises that creates a similar economic good or utility. For example, automobile industry, the poultry industry or the banking industry).

University Library

Eyiolorunshe and Eluwole (2017) stated that Libraries play an important role in the intellectual development of an individual as well as the total development of a society. The Library is the most enduring and flexible agency for learning and has been in existence for over two millennia transcending even the first universities (Bundy, 2004). The University library has been described by ALA (2010) as the “heart of the University”. For Hamid, Akalumbe and Monu (2011) university library is the department that provides bibliographic apparatus like books, periodicals, audio-visual and facilities for e-libraries etc for the attainment of the education objectives of the university. Librarian’s Glossary cited in Okeke (2009) defined university library as a library or group of libraries established, maintained and administered by a university to meet the needs of the students, members of the academia and other members of the university community. While according to Adeyemi (2010) university library is the whole stock of books and other resource materials in any university; a collection of a wide variety of learning and teaching materials were housed in a place, indexed to serve readers and students.

In the same vein, university library was defined by (Reitz, 2004) as a library or library system established, administered and funded by a university to meet the information, research and curriculum needs of its students, faculty and staff. For Unegbu and Otuza (2015), a university library is a kind of academic library that serves the information needs of the university community through provision of information resources that supports learning, teaching and research. University library has been defined by Ogunmodede, Adio and Odunola (2011) as a place where information services are rendered to users. University libraries according to Oyedum and Garba (2003) are libraries usually established, maintained and administered by a university to meet the needs of its students and members of the academic staff. Oyedum, (2010) says that

university library is a place for acquisition, preservation and dissemination of relevant information resources in order to support the teaching and learning process in the parent institutions. For Oyedum and Nwalor (2012), university libraries are established in order to promote the research, teaching and learning activities in the universities. University library can therefore be defined as that component of the university system that is charged with the provision of relevant and current information resources in various accessible formats required to support the mandates of the university.

Review of Literature on University-Industry linkages/relationships/collaborations

According to Anuswedha(2015) the relationship between universities and industries (including other players in the productive sector) can play a critical role in securing and leveraging additional resources for higher education, promoting innovation and technology transfer and ensuring that graduates have the skills and knowledge required so as to contribute effectively in the work area. According to Anuswedha only recently had many Central and National Universities teamed up with the industrial collaborators and that various policies have also been put in place to promote university-industry networking. He posited that the linkage will make education purposeful and that curriculums should reflect industry need. He also opined that faculties should familiarize themselves with industrial practices and prepares case studies afterwards to teach the students. Furthermore, Anuswedha called for opportunities to be provided for the teachers to work for industries for short duration as well as industries offering internships to students.

The need for this relationship cannot be overemphasized given to the fact that they need each other to stay afloat and relevant in the society. Yusuf and Olowo (2015) advised that higher education institutions should strengthen their work-based learning by providing integrated placements, internship and other work-based learning opportunities for a significant period of time. They therefore recommended that there should be a meaningful employer participation in higher education committees. They stressed that employers of labour are better placed to say the competency skills they required in various fields and therefore should be active participants in workshops, seminars, and skills sessions of universities and professional bodies. Programmes like internships, industrial training are some of the ways universities and industries interface, but these programmes need to be strengthened to be made more effective. For example, students' attachment reports should be taken serious by the universities by ensuring that the students do their attachments in relevant industries and at the end of the programme integrate their experiences in the university course designs and outlines.

All fields of study should be made to partake in these attachment/internship programmes. In line with this The Vice Chancellor of Bayero University Kano (BUK), Prof. Muhammad Yahuza Bello called on the participant of Communication Review Workshop organized by Faculty of Communication of the University to consider including internship for communication students in their curriculum (Garba, 2017).On regular review of academic curriculum, The BUK Vice Chancellor posited that there was need for review so as to be proactive given that many developments had taken place in the communication sector. In his own part, the Vice Chancellor of Federal University of Technology Minna, Prof. Musbau Adewumi Akanjiin on an interactive personality platform organized by Correspondents Chapel of Nigerian Union of Journalists (NUJ), Niger state Chapter says that academic programmes of his university are run using what

he called dynamic curriculum that meets industry needs. He further stated that FUT, Minna interfaces with employers of labour and then incorporates their requirements in their curriculum.

Susan and Raju (2015) writes that an unfortunate situation exists in India, were according to them Indian universities do not bother about higher education relating to job opportunities, arguing that there is no job market for M.A History. But history according to Susan and Raju can be linked with other courses like tourism, computers etc, they argued that new job oriented courses can be designed by the universities. Susan and Raju (2015)gave the following as possible areas of university-industry interface; simple consultations or visits to in depth researches, with emphasis on the following areas: industry support to basic research; industry participation in technology development; involving some exploratory work; collaborative R&SD activities; academic intervention; continuing education programme and student placement.

According to Obayan (2012 the vision base of Covenant University, Ota, for their academic programme curriculum is tied to the needs of the real world so that there is a meeting of minds and quality interaction between the gown and town. She further likened the University to a factory where products are turned out, and the products so produced are useful to the users. The products are the graduates while the society is the user. Still on university-industry linkage, Garba (2017) quoted the Director, School of Science, Engineering and Technology, Albertay University, Dundee Scotland Dr. Yusuf Yahiya Deeni as saying that:

For the academic to reach out for collaborative works in research, it is the existing disconnect between members of the academia and the industries, on the one hand and the wider society on the other hand, that has been identified as the greatest obstacle to having innovative thinking as well as carrying out research that will impact the Nigerian society, thereby launching her into the comity of advanced economies (P.8).

In a study of School-Industry linkage in Anambra State, Okoli (2010) shows that the industries collaborate with the universities only through career talks to students, excursion visits by students to industries, industrial work experience, institution and award of prizes to undergraduate students. It shows that industries in Anambra State do not give financial aids to the Universities. The study therefore concluded that the collaboration between the Universities and industries/organizations in the state is weak. This in line with study of Adepoju and Adedeji (2016) who studied university-industry collaboration in Ondo state Nigeria and reported weak collaboration among the two.

According to Ramakrishnan and Yasin (2011) in Adepoju and Adedeji (2016), university-industry relationship is not a new thing as it was first introduced in 1903 by Sunderland Technical College in Norther England and was known then as Sandwhich programme. Over the years developed countries as well some developing countries have benefited from this relationship (Adepoju and Adedeji, 2016). They said that it has helped those countries in the development of their Research and Development (R&D) agenda, stimulated additional private R&D investment, exploit collaborations and complementarities of technological capabilities, it also enhanced the commercialization of public research and development results as well as increase the movement of labour between the public and private companies (World Bank 2013 in Adepoju and Adedeji, 2016).

Benefits Accruing from University-Industry Linkages/Relationships/Collaborations

The benefits of this relationship can neither be overestimated nor overemphasized. This is more truthful when we agree that the university lives for the industry as well as the industries living for the university. The society will be the ultimate beneficiary of the relationship. Ramakrishnan and Yasin (in Adepoju and Adedeji 2016) highlighted the benefits thus: creating new knowledge, enriching teaching resources, industries acting as consultants to students, disseminating information of job opportunities and requirements by industries; providing mentorship in students' in career choice; motivating students in their final year projects and providing quality internship programme for the students. The place of the university library in all these is not in doubt as libraries through acquisition of right materials acts as a catalyst for the creation of new knowledge and the librarians through researches also produces new knowledge all of which enriches the teaching and learning resources. Similarly, libraries can go in between the university and the industry by anchoring the sharing of information between them.

Factors Responsible for Low University-Industry Linkages in Nigeria

According to Garba (2017a) university-industry linkage remains a work in progress in Nigeria and most African countries, hence a course for concern especially to the academia that carries out research on daily basis to address societal challenges. Garba (2017b) said that the communique issued after the conference identified misunderstanding, lack of cooperation, mistrust between the academia, industries and the public on the issue of development as some of the factors inhibiting university-industry linkages. They also identified lack of interaction between them, use of outdated science curricula which are also not skills oriented capable of inspiring and motivating students, lack of funding of researches, lack of articulate and dynamic policy for our tertiary educations, and industries towards a better utilization of our numerous natural resources. Garba (2017a) quoted the President of Nigerian Academy of Science, Prof. Oyewale Tomori as saying that “lack of collaboration between Nigerian Universities’ research centers, industries and government is affecting economic growth in the country.” According to him, Prof. Oyewale suggested that change and other dynamic factor which includes policy intervention could change the situation for the better. Others, include none industry/society driven curriculum, poor information handling etc. the university can bridge these gaps by handling information sharing between the two, this will ensure constant communication which brings understanding of each others need per time.

Furthermore, research results of studies conducted by the Association of African Universities (AAU) in 2012 showed that some challenges confronting African countries which include economies, political and institutional research capacity is hindering university-industry linkages (Ssebuwufu, et al 2012(in Adepoju and Adedeji 2016). According to them it posses the following challenges to the linkage: lack of an enabling environment for re-orientating and aligning universities towards a more entrepreneurial role; prevalence of small industries which are often small to medium scale firms just producing for local markets; lack of awareness of existing research results and new technologies on the part of the industries; irrelevance of most African universities researches; weak capacity of many African universities to carryout research and develop technology; long years of neglect in funding university research given rise to weak research infrastructures, hence reliant on donor funding; and low salaries and moonlighting activities of some academic staff leading to brain drain of the academia, leaving behind few qualified researchers to carryout local research.

This sorry situation will not last forever, if we must join the league of developed countries-reducing unemployment drastically, inventing new technologies, and transferring technology etc, our university-industry linkages must be taken seriously by all stakeholders. As giants of Africa we cannot afford to be left behind for so long.

Implications of None or Poor Linkage

- Low level development of Science & Technology
- Low economic and national development
- Wastage of resources by the universities in training unemployable graduates
- Unemployable workforce
- High cost of reskilling graduates by industries
- Poor school enrollment
- Poor funding of some university activities like, workshops, conferences, seminars, staff training, etc
- Continued poor financial state of the universities
- None commissioning or sponsorship of university research
- None adoption and or implementation of university research reports
- Lack of student grants.

The Role of University Library in Promoting University-Industry Linkages

The library can be part of the University-Industry linkage drive in the following ways.

1. Access to Information:-The truth that information is a critical commodity in a knowledge based economy and the university is one of the biggest generators of this commodity is not in doubt. The university library is charged with the collection/generation, processing, preserving and dissemination of this commodity in the right quantity, quality and in the right format. Because of this truth about information, emphasis in this age is on Open Access and Open Source. Dr. Yusuf Yahaya Deeni, in his paper retreated the place of information when he said that there is the need to empower the public with the tools and information about science, technology and culture without which we cannot have a robust scientific endeavor (Garba, 2017).

As university libraries are established to support teaching and learning and research in their parent institution, it therefore should go all out to make inclusive selection (involving the Faculties and users) of materials so as to cover the core subject and research interests of the staff. University libraries build networks/consortium to make sure that the university community has access to almost every available and relevant knowledge/information needed to advance and create knowledge.

In this era, access to information has been made much easier than it used to be with the advent of ICT in library operations and with millions and millions of e-resources being generated on daily basis. It is believed that millions of these materials are junk, thereby posing the need for

trained professionals like librarians who will evaluate and sift these materials and make relevant ones available. Right policies are made when there is access to right information.

Current Awareness Service (CAS)/Selective Dissemination of Information (SDI)

Through current awareness service (CAS)/Selective Dissemination of Information (SDI) The library brings to the notice of both their university and the society of new knowledge/information. This can be done through displays of new arrivals and current research out puts both in the library and on the university's websites. Profiles of top staff and researchers on both sides who will receive these services are taken, since it is not for everybody, particularly, SDI. CAS can be used for the whole university both for the university community and the industries. Management staff and Researchers are very busy people and as such they rarely visit the library and are at risk of being cut off with latest developments in their fields without CAS and SDI especially in this era of information explosion. These services are therefore used to bring them in tandem with the latest information materials in their areas of interests. This way the library can bring the firms and the university together. The librarian can set up Research and Bibliographic Unit if it does not exist already to handle this and the staff involved in this must be on their toes in literature search especially from newly arrived library materials as well as getting the library into the mailing list of various Firms in the community for their Newsletters/magazines/bulletins and annual reports and deliver same to the right end users. If properly designed to serve both sides it will bring the two sides together by presenting the information needs of the industries to the University and vice versa.

2. Establishing its own linkages:- To save the University of huge cost of acquiring information resources especially e-resources, University Libraries should establish linkages with various stakeholders in the community, foreign university libraries, multinationals, Foundations, donor agencies and individuals, government agencies like NCC, NITDA etc. These linkages will help the library overcome the challenge of inadequate funding as they from time to time donate needed facilities the libraries.

3. Agents of Copyright/intellectual property Management:-The University Libraries should take responsibility of managing the copyright/intellectual and Patent issues of the university. Some researchers may have fears of these issues, so the library should teach researchers in their universities on how to go about getting and preserving the rights to their discoveries, including registering them. Taking up these role places the university library and the librarians in between the university and the industries. They can also generate revenue from that.

5. Entrepreneurship Education:-The high rate of unemployed graduates has necessitated the need for teaching and researches on entrepreneurship in universities. This will on graduation make the graduates more of employers of labour than seekers of white collar job. University Libraries should therefore be at the fore front of this agenda by building a special collection of entrepreneurship resources. This is in line with the position of Ojedele, Oyekan and Adeniyi(2016) who stated that Entrepreneur plays a huge part in driving the economy and the libraries are now recognizing the need to promote and sustain entrepreneurship. They should also go beyond collection of resources but also organize seminars/workshops on entrepreneurship to expose the students to various business ideas and skills to manage them effectively and efficiently, bringing entrepreneurs and academics together as resource persons. This is in line

with the position of a former American Library Association President, Barbara Stripling who said that “we’re not just addressing needs anymore. Libraries are helping community members achieve their dreams” (Prato, 2013).

6. Lifelong learning:-Learning is a constant phenomenon in the life of man. From birth to death, man is constantly learning and relearning new things that will help him sustain the type of life he has planned for himself and by implication the society. University libraries help to expound the learning skills of people who pass through it. They do this by teaching their users various ways of identifying need for information, evaluating available information and making use of information all through their life time. Courses like use of Library and Study Skills, Information Literacy etc are employed to achieve this aim. Ojedele, Oyekan and Adeniyi (2016) quoted Rodriguez as stating in his paper, titled “the expectations of the New Engineer” thus:

“Engineers with solid library research skills will generally produce more through reports than those without. The ideal time for the engineer to develop his or her information gathering and management skills is not when entering corporate world, rather, it is through the engineering library resources where staff and collection are virtually always superior to that of the corporate world where library service may be limited or non-existent.”

This underscores the importance of university library in lifelong learning skills and its importance in University-Library linkage.

Conclusion

University-industry linkages in Nigeria are still at its lowest ebb. The result of this poor relationship between the university and the industry they produce the graduates for has resulted in low development particularly in science and technology, unemployment, as most of the university graduates are rejected by employers of labour for lacking required work place skills, on the other hand the research reports produced by the universities ends up on the shelves without the industries adopting them thereby denying the country of the needed innovations. There is poor interface between the two. There is therefore strong need for the two to get into constant engagement that will make the universities curriculum be driven by societal or industrial needs. Mistrust between the academia, industries and the public on the issue of development, also identified are lack of interaction between them, use of outdated science curricula, lack of funding of researches, lack of articulate and dynamic policy for our tertiary educations were identified as some of the factors against their collaboration. This poor linkage is not without implications like low level development of Science & Technology, low Economic and National Development as well as wastage of resources by the universities in training unemployable graduates etc. The libraries through proper provision of access to information, entrepreneurship education among others can support university-industry linkages.

Recommendations

The paper therefore, recommends the following:

1. That the government convenes a national curriculum conference where our national education philosophy, objectives and goals will be redefined so as to produce a thorough 21st century compliant national policy on education.

2. That University libraries should reach out and establish linkages with various stakeholders in the society that will assist them in meeting up with the provision of relevant and current information resources.
3. That University libraries should start playing agency roles of copyright and patent management between their universities and the industries.
4. That University libraries should mediate in information generation and dissemination between the universities and the industries.
5. That higher education managers, industries, professional bodies and other stakeholders should as a matter of urgency workout policies that will ensure, enhance and sustain university-industry linkages in Nigeria.

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