

Open Innovation: Implications for the Effectiveness of Nigerian Tertiary Institutions

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Abstract: *The value and relevance of tertiary institutions, draws on their capacity for effectiveness in terms of research, human resource development and solutions to existing societal challenges. The noted decline in these areas raises concerns about the practicability and applicability of the ideologies, models and theories advanced by these institutions, given the changes that currently mark the social and economic features of societies. This paper, in response to this concern, addressed the relationship between open innovation and the effectiveness of tertiary institutions. Drawing on the systems theory, a perspective was advanced in line with the need for tertiary institutions – especially those in Africa, to increase their partnerships, alliances and collaborations with other institutions, parties and stakeholders as a basis for enriching their experiences, learning and enhancing their connectedness and integration within their context. It is the position of this paper that availing opportunities of partnerships and alliances with other institutions and business organizations, can be utilized in bridging extant disparities and gaps between the features of tertiary institutions and their contexts – enhancing their access to resources, funding, new ideas, information, technology and even human capital, necessary for their effectiveness and functional relevance within their various societies and contexts.*

Keywords: *Open innovation, tertiary institution effectiveness, systems theory, collaboration, partnerships, stakeholders.*

INTRODUCTION

Tertiary institutions as citadels of learning advance research and knowledge in ways that are expected to enrich and positively influence the literacy, productivity and wellbeing of societies. Effective tertiary institutions are, according to Asaiu and Adagba (2014) such that are able to substantially contribute to the economy through the education and development of human resource; necessary for driving the productivity and growth of the economy. However, this has not been the case for most African nations. Amadi (2011) argued that within Nigeria, there is a growing lag between

the functional models applied by tertiary institutions and the knowledge or research gaps extant in the environment. Olujuwon (2002) noted that despite the increasing number of universities and polytechnics in the country, there is yet an observed incessance of human resource functional deficiencies and a declining competence level manifested in the poor quality of graduates and so-called professionals that now throng key industries within the nation – further complicating issues and negatively impacting micro and macro level outcomes (Anyambele, 2004; Alubo, 2013).

Akpa (2013) investigated the role of leadership in the effectiveness of tertiary institutions. Akpa (2013) asserted that leaders are central to the choices and decision outcomes of tertiary institutions. According to the authors, the success and behaviour of tertiary institutions are linked to the leaders' level of competency and capacity to coordinate the affairs of these institutions. Adegbite (2007) identified research as a criterion for the improved performance of tertiary institutions. From their perspective, research equips these institutions with knowledge and that way, facilitates capacities necessary for their effectiveness. One however finds a dwelling of literature on the internal actions and behaviour of the tertiary institutions, with scant recourse or considerations of other external factors. As organizational systems, tertiary institutions exist and draw their being from their interaction and exchange with the various factors, groups, elements and parties that make up the stakeholders and environment of the organization (Adegbite, 2007; Arikewuyo, 2001).

The interrelation between the organization and its environment is such that offers a variety of opportunities such as partnerships and networks that are enable or facilitate open innovation (Chesbrough, 2003; Huang & Rice, 2012). Open innovation describes the collaboration that exists between institutions and various stakeholders, groups or parties that exists outside the institution. These could include the government, business organizations or other institutions. Such collaborations lead to collective creativity and shared responsibility for institutional outcome (Rahman & Ramos, 2013; Wang et al, 2009). As earlier observed, research on the

relationship between open innovation and the effectiveness of tertiary institutions is scarce. This owes to the focus of related studies on open innovation in private sector business organizations. However, such practices offer features which one could argue are likewise applicable and useful to tertiary institutions. The goal of this paper therefore, is to discuss the relationship between open innovation and the effectiveness of tertiary institutions. This relationship is to be reviewed in line with the systems theory of organizations.

Systems Theory

The systems theory, clarifies on the nature of connectedness and relationships that exists between sub-units of a system, and the implications of such for the whole. Vyas et al (2010) stated that through consistent interaction and correspondence, the interdependence between units within the system is reinforced, their values aligned and their interpretations of reality are shared. The systems theory justifies the need for institutions to be more integrated and aligned with their environment – engaging other institutions and parties in ways that contribute meaningfully toward their societies (Vyas et al, 2010). Through collaborations and partnerships, institutions not only enrich their own standing and positions, but advance healthier social systems and institutions that can be described as viable and relevant owing to their integrated features and embeddedness. Vyas et al (2010) noted that the involvement and validation of institutions within particular networks, enriches their functionality and value; increasing their capacity for survival and effectiveness.

Open innovation

Partnerships and relationships between institutions increase relational rent and flexibility for the parties involved (Chen et al, 2011; Kang & Park, 2012). Through such relationships, institutions will also be able to pool ideas, resources and skills in ways that

are cost-effective and ensures an alignment of focus. Ganter & Hecker (2013) opined that when institutions exchange and collaborate, they create new forms of competencies premised on shared capacities and

infrastructure. These contribute toward innovation – reflecting the shared dynamism of partners and their ability to cohesively and cooperatively address change related demands and challenges.

Cornell (2012) thus, described open innovation as the emerging capacity that is spurred on by the continued collaboration and shared responsibilities of the partners. The concept of open innovation is one that builds on the richness and depth of the institutions network. By richness one refers to the extent of resources, skills and experience contained and expressed by network members, and by depth, one describes the level of trust and involvement expressed in the institutions network. These two are imperative to the health of such relationships and the extent to which they serve the goals of the institution (Virlee et al, 2015; Rangamiztousi et al, 2015).

Open innovation allows for new input and views from external parties. According to Wang et al (2009), it involves the engagement of external parties in the decision process and choices of the institution

– this involves a relief from traditional, cultural or institutional practices and entails a more flexible stance which is more accommodating of change and stakeholders' engagement. It moves beyond institutions customized approaches to research and development toward learning and knowledge acquisition through alliances and other forms of partnership that not only enable its access to resources but also enrich its existing knowledge and level of creativity. Ahn et al (2014) argued that there is a growing reference by tertiary institutions to business communities in defining the focus of research, particularly with the view of ensuring the development of theories and ideologies suitable and applicable to modern day organizational concerns and interests. This is as Abulrub and Lee (2012) argued that learning is a multi-faceted process that is occasioned not only by the singularity of experience and the observation of others, but by the plurality of interpretations and the emergence of systems that serve to harness and integrate knowledge in a suitable and effective manner.

The Effectiveness of Tertiary Institutions

The concept of effectiveness details the capacity for desirable outcomes or output. This entails the quality, quantity and timeliness of such output. Within the context of tertiary institutions, effectiveness applies in the sense of capacity development and the relevance of content to the society (Fey & Denison, 2003; Arnett et al, 2018). Hence, it is yet a matter of quality, quantity and timeliness as capacity development and related research is expected to provide solutions that are relevant or suitable (quality), in the right proportion (quantity) and in line with the pace of change or time-based demands of the context (timeliness). Gilbert and Parhizgari (2000) posited that the process of adapting tertiary goals to the actual concerns and expectations of its societies is a sensitive and often overlooked area of concern. According to Akpa (2013) there is an increasing preference expressed by most African institutions to focus on

convenient and often more convenient and profitable subjects and scopes of concern; engaging in what could be described as ritualistic and superficial research activities that at the end advance little to no change or benefit to their societies. This has led to deepening disparities between the academic and real world.

Asaiu and Adagba (2014) in their study described most emerging African ideologies and models of work are rooted and premised on alien systems and foreign perceptions. This has significantly affected their relevance and practicability in the context of African societies and in most cases, further complicated outcomes for organizations. Arikewuo (2004) observed that the imposition of unrelated models which within Western countries appear effective, have in African contexts further caused disaffection in the workplace, employee alienation and even led to organizational

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failure. Arikewuo (2004) noted that research in Nigeria, spurs on the theoretical and empirical base and frameworks defined and structured by Western philosophies. These follows some attempts by African based scholars (Ahiauzu, 1999; Adegbite, 2007) to modify and enact social paradigms that draw primarily from the social realities and life

world of the African – yet still, the fusing of these views with the current position and practices of tertiary institutions has been problematic (Alubo, 2013). Thus, one finds a growing need for advancing knowledge and operational forms by tertiary institutions – bordering on their own context and environment.

Open Innovation and Effectiveness of Tertiary Institutions

Relationships and the exchanges that occur between institutions or partners offer significant meaning to the parties involved. The depth and richness of relationships within the institution's networks are also critical to the extent to which realities and perceptions are shared. Gassmann et al (2010) observed that the clamour for increased involvement of stakeholders in the management and running of tertiary institutions, especially in Nigeria, is valid and should be given its due consideration. The researchers argued that through the engagement of stakeholders, these institutions are offered increased access to both financial and non-financial resources, support networks and a more flexible approach toward addressing the ills of poor infrastructure, technology and qualified manpower. Open innovation according to Dahlander and Gann (2010) necessitates conditions that integrate the institution within a larger whole, creating and increasing its opportunities and functional capacities. This aligns with Gassmann et al (2010) observation that through useful networks, and partnerships that cut across industries (e.g., banking, telecommunication, oil and gas etc) tertiary institutions are equipped with knowledge and practical skills as to what is applicable and relevant to their own context, and thus a refocusing of research in those areas.

Research (Chen et al, 2011; Brunswicker & Vanhaverbeke, 2014; Virlee et al, 2015) suggests that when capacities are shared, costs are also reduced and resilience is

- i. Through clearly defined partnerships between tertiary institutions and business entities across varied sectors and industries, institutions could

enhanced. This agrees with Chesbrough et al (2011) observation that through collaborations or partnerships, institutions are also able to enhance their level of embeddedness and integration within their contexts – solidifying their position and validation with significant others. This suggests that through engagement in partnerships and alliances, not only do institutions learn and get to understand the realities and concerns of existing social and economic systems; they are also able to apply themselves in practical ways – synchronizing their features with the needs and expectations of their partners or context.

Lasgani (2012) suggested that open innovation is essential for today's citadels of learning – especially as systems and societies are increasingly being integrated and assimilated through a fusion of cultures and other socio-demographic factors. Apart from context-based relationships and networks, institutions could further expand their network scopes to capture broader concerns which not only affect global economies and social structures but advance significant implications for the institution's context as well (Ahn et al, 2014). The goal however, is to understand and interpret the environment, whether local or international from a standpoint that benefits and aligns with the particular concerns or one's own context. Thus, in line with the review, this paper affirms to the following as ways open innovation could contribute to outcomes of the effectiveness:

garner knowledge and practical experience relevant for developing its capacities and manpower and for channelling such

- toward outcomes projected at addressing the problems and challenges of related business organizations
- ii. Through alliances with other institutions, both local and foreign, tertiary institutions could collaborate on key and relevant research goals, gain insight on trends and advances within the academia and also achieve relational rent – thus enabling a more profitable and rewarding outcome for all parties involved.
 - iii. Through collaborations with stakeholders, tertiary institutions can enhance their access to financial and non-financial resources, support and information – enhancing collective creativity and as such increasing the quality of their decisions, choices. This is necessary for furthering their relevance and value to their various contexts and societies.

Conclusion

Open innovation leverages on networks – transforming and channelling emergent capacities and creativity toward outcomes that can best be described as advantageous and rewarding. This repositions and enhances the effectiveness of tertiary institutions, increasing capacity to improved infrastructure, quality outcomes and the ability to function at a pace matching that of their environment. As systems, these institutions and their activities are most impactful and beneficial when it is interwoven with the particular cultural, social and economic factors that shape its own context. This is because such alignments and agreeability reflect the practicality of ideologies, theories and models – demonstrating competence and the specificity of knowledge forms required for effectively and efficiency addressing the problems or challenges of one' operational context.

The increasing need for improved and suitable research outcomes borders on learning; but not just a singularity of such in terms of experience, but the emergent behaviour and actions that can be trailed to an accumulation of actions such as collaborations, partnerships, knowledge sharing and the development of features aligned to one's purpose and mission. Thus, it is the position of this paper that availing opportunities of partnerships and alliances with other institutions and business organizations, can be utilized in bridging extant disparities and gaps between the features of tertiary institutions and their contexts – enhancing their access to resources, funding, new ideas, information, technology and even human capital, necessary for their effectiveness and functional relevance within their various societies and contexts.

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