

## **| CHAPTER SEVENTEEN |**

### **IMPERATIVE OF SUSTAINABLE REAL ESTATE INFRASTRUCTURE AS A TOOL FOR ACADEMIC GROWTH AND TRANSFORMATION: AN INSIGHT LEADERSHIP OF E. O. NWADIALOR**

**Emenike, Kingsley Chikwuado, Ph.D.**  
Department of Business Administration,  
Tansian University Umunya, Nigeria.  
[Kingsleyemenike22@yahoo.com](mailto:Kingsleyemenike22@yahoo.com)

#### **INTRODUCTION**

Sustainable real estate infrastructure is the paramount factor for development since real estate or property development is one of the fastest safest sources of providing accommodation for various purposes. In modern academic environment (Tansian University) sustainable real estate infrastructure as a facility is needed for academics, business, recreation accommodation and administrative purposes. Sustainable real estate infrastructure is capital intensive in nature, they require considerable amount of capital to install, construct and provide them. Hence, only a very small percentage of the infrastructure is normally provided by individual investors it is therefore vital for investors and the society in general to have basic knowledge on alternative measure to provide some basic infrastructure without a full government intervention (Emenike, 2022).

The huge capital requirement/cost for real estate infrastructure in education sector have discourage quite a number of academic investors, while the bold and un-wavering lot have found wisdom in seeking professional advice and preparation of detailed viability

reports in other to maximize opportunity in providing these infrastructures. The estate surveyor and valuer usually after professional advice to enlightened investors as regards the best approach to real estate development since the provision of infrastructure will attract higher benefits as well as fulfilling a desired objective. The estate surveyor and valuers champions the business of land acquisition plotting of land development, maintenance and coordinate other maintenance personnel particularly the engineer. It would be an appreciation to land and landed property if adequate infrastructure is provided. Ozigbo and Ozigbo (2013) sustainable real estate infrastructure is the catalyst for a positive outcome of any given tertiary institution especially with the current revolution in the education sector that is majorly characterize with quality infrastructural facilities like structural facilities which consist of lecture halls, library, studios, laboratories, auditoriums, hostels eating café, administrative buildings etc. Service facilities which consist of motorable access road, sewerage, drainage system security systems etc. Energy facilities which consist of electricity stand by generator, solar energy etc. Point and network facilities this includes telecommunications, internet, communication circuit television (CCTV), detection alarm gargets, monitoring drone. Furniture facilities and electrical appliances this touches across chairs tables, cupboards, drawer'spapers, files, computer, copiers, printers, television etc. the presence of this facilities enhances the performance of academics and its related activities. Nevertheless, there is a need for sourcing facilities that are economical accessible environmentally friendly and socially appealing. Technicalities involve in providing Sustainable real estate infrastructure in tertiary institution is enormous and as such requires both professional competency and innovative skills that is interdisciplinary by nature. Under a good leadership achieving these feet is a milestone that comes with series of brain storming among dedicated team of goal oriented minds.

Sustainability as it connotes in this study is aimed at providing

facilities that are available, accessible and durable without hurting our economy, environment and our social wellbeing to the intent that facilities provided in Tansian University will enhance academic growth and transformation simultaneously. The intention and independent view of this study is geared towards: Firstly, to ascertain the quality of existing SREI in Tansian University and how it has helped the wellbeing of staffs and students academically. Secondly, to examine SREI that requires upgrade, repair and maintenance or total renewal exercise. Thirdly, to identify other SREI that is highly needed for the propagation of academic excellence under this present administration. Finally, to evaluate the impact of SREI on academic growth and transformation.

### **THE CONCEPT OF SUSTAINABLE REAL ESTATE INFRASTRUCTURE (SREI) IN TERTIARY INSTITUTION**

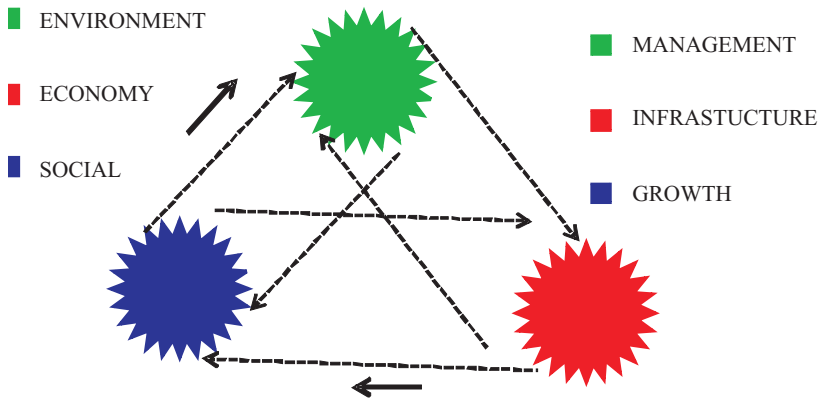
Sustainable real estate infrastructure in the recent time has proven to be among the key factors in the success of education sector; hence it reveals the latent values of land and landed property as well as enhancing other values imbedded therein. The supply of these infrastructures can create a constructive revolution in the education sector (Emenike, 2020). Sustainable real estate infrastructure are those facilities that help the smooth and efficient running of an estate with the intent of meeting a desired objective without obstructing trans-generational equity. Whether rural or urban, there are certain infrastructures that help in promoting academic growth and transformation of any given geopolitical settings. This infrastructure is known as Sustainable real estate infrastructure. Generally, Infrastructure refers to structures, facilities and services that are developed by the government, public or private institutions to enhance efficient functioning of urban life and economy Francis and Beulah (2017).

Infrastructure network is akin to climate created by the institutions (public or private) that serve as conduits of progressive development. The role of infrastructure in the context of

integration is transformative, through enhancing change of resources into outputs that strengthen academic growth and removing barriers for effective transformation. An improvement in a country's infrastructure is one of the key factors affecting the long term growth of such a country. The linkage between Sustainable real estate infrastructure and academic growth looks varying in the beginning but interwoven on the long run. (SREI) also creates many direct and indirect externalities (Ajobolaet' al, 2013).

### SUSTAINABLE DEVELOPMENT DIMENSIONS AND PRINCIPLE

Sustainable development as indicated in its definition above is now classified into three dimensions namely: environmental sustainability, economic sustainability and social sustainability as shown in figure 1 below. Notwithstanding Pitts (2004), opined in his study that the third dimension is the same as equity and therefore, the dimensions are environmental, economic and equity sustainability.



*Figure 2.1 Showing the Interactions of Three Dimensions of Both Ways Reaction of Real Estate Sustainable Infrastructure with Sustainability and Practicability (Adapted from Edum-Fotwe and Prince, 2009, Lutzkendorf and Lorenz's, 2005).*

The success of any given economy, country or nation depends primarily on the level of availability of infrastructure. The concept of sustainable real estate infrastructure exists as the fulcrum for national development at the grass root level, the provision of sustainable real estate infrastructure like administration offices, lecture halls, hostels, staff quarters (Aniebiebasi et al, 2018), electricity, good road and security etc. will always improve the wellbeing of the staffs and students of Tansian University.

These viewpoints are also relevant considerations for sustainable development (Karshenas, 1994). This complex web of inter-relationships between sustainability and (SREI) is addressed by the policies for sustainability. These guidelines consider a spectrum of underlying situations to achieve sustainability in infrastructural development (along the four dimensions of sustainability – environmental, social, cultural and economic) respectively. Although sustainable facilities are often associated with wealth and affluence, it does not need to be so – genuinely sustainable facilities are those that are inclusive and affordable for all (Golubchikov, 2009; Boardman, 2010).

Facility is one of those basic social conditions that determine the quality of life and welfare of people and places. The spatial configuration of building is weaved into the environmental, social, cultural and economic fabric of communities are factors that, in a very real way, influence the daily lives of people, their health, security and wellbeing, and which, given the long life of dwellings as physical structures, affect both the present and future generations. (SREI) is therefore focal to sustainable development. (Aniebiebasi et

al, 2018) strong relationship exists between facility and society coupled with the environment. On the one hand, facility construction and operation consume large amounts of natural resources (land, energy, water, and building materials), while producing waste, air and water pollution. (Masnavi, 2007; Melchert, 2005 ;Onuoha et al, 2017) On the other hand, facility is exposed to environmental hazards leading to climate change. These viewpoints are also relevant considerations for sustainable development (Karshenas, 1994). This complex web of inter-relationships between sustainability and facility is addressed by the policies for sustainable facility. These guidelines consider a spectrum of underlying situations to achieve sustainability in facility development (along the four dimensions of sustainability – environmental, social, cultural and economic) respectively. Although sustainable facility is often associated with wealth and affluence, it does not need to be so – genuinely sustainable houses are those that are inclusive and affordable for all (Golubchikov, 2009; Boardman, 2010). Addressing the issue of affordability is, therefore, a necessary condition for transformation towards sustainable facility. Yet affordability is not enough, because the so-called affordable homes cannot be considered sustainable if they create negative impacts on the environment or social life. Sustainability and affordability are synonymous. nevertheless, sustainable facility is often considered from a resource-saving (green) perspective, this study advocates a more comprehensive approach – viewing sustainable facility not simply as units or clusters of self-sufficient “green buildings”, but as socially-enhancing and environmentally friendly residential practices integrated into the wider urban/settlement systems (Razali et al, 2014). “Infrastructure is a challenge to any economy” (Ihuwa,

2015). This problem is linked to the following; population (Igwe et al, 2017; Ayedun and Oluwatobi, 2011) credit facility (Eziyi et al, 2011; Olotuah, 2000) government policy (Ebenezer et al, 2016; Aniebietabasi and Eugene, 2018; Osubor, 2016). These factors created a room for examining sustainability (Brandon and Lombardi, 2011). However, sustainable facilities “infrastructure” observes certain principles that produce result in all dimensions of sustainability. Hence sustainable development is defining as a behavior that “meet the needs of present without compromising the ability of future generations to meet their own needs” Brundtland (1987). Sustainable infrastructure has the potential to produce good quality facilities at a price that is affordable both in the short and long term. (SREI) must meet the demands of sustainability. Notwithstanding numerous attempts, sustainable infrastructural facilities have remained difficult to define, yet it should be coherent to certain characteristics of sustainable development (Choguil, 2007): poverty alleviation for environmental preservation through effective policy.

## **METHODOLOGY**

The study was conducted within the borders of Tansian University which consist of Oba campus and Umunya campus, all in Anambra state, Nigeria. The sampling method used was a survey method. In this survey the researcher did not reveal the full identity of respondents in Tansian University as the respondents were only members of staff and students. Sample frame for this study is one hundred and forty-four respondents (144), representing the university community of which 50% of the respondents were students while 50% were staffs of Tansian University respectively. One hundred and forty-four respondents (144) of the

responses received were surely completed hence were considered satisfactory for further analysis. This indicates that 100% response is good and is reliable enough and valid for conclusion. Data used for this study were obtained from two sources. Firstly, our primary data was generated from administering of well-structured questionnaire, direct site inspection visit and taking of pictures where necessary. Secondly, our secondary data was gathered and produced from reputable journals, textbooks, conference proceedings, newsletters and magazines. In this research questionnaire uses a five point likert scale, relevant important index (RII) in measuring the variables. This study is a combination approach between (main stream) quantitative analysis and (non-main stream) qualitative analysis. Data were analyzed using statistical package for social science (SPSS), important relevant index (RII), pyramid list index (PLI) and cycle matrix.

## **RESULTS AND DISCUSSION**

### **Results**

Table 1 summarizes the gender of the respondents in this study. This indicates that both gender participated with the men ranking 52% while the women ranking 48% this is an implication that this study is a contemporary issue that that need intervention in the university community.

Table 2 is a summary of the status of respondent which consist of students and staffs of Tansian University this actually showed that both students and staffs are interested in the progress wellbeing of Tansian University as an academic institution that valued by its stakeholder at various cadres.

**Table 1: Gender of Respondent at TANUU**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid MALE	75	52.1	52.1	52.1
FEMALE	69	47.9	47.9	100.0
Total	144	100.0	100.0	

**Table 2: Status of Respondent at TANUU**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid STAFF	72	50.0	50.0	50.0
STUDENT	72	50.0	50.0	100.0
Total	144	100.0	100.0	

Figure 4.1 shows the respondents remark on the state of SREI in Tansian University as this suggest this present administration is doing well in road network that rank 79%, solar electricity ranking 25%, school buildings which includes lecture hall administrative buildings and hostel which ranked 17%, security which ranked 12%, ICT and telecommunication which ranked 8% and 3% respectively.

Figure 4.2 summarized the response of the respondent in which majority with the score 88% agreed that the presence of SREI have intense impact on academic growth and transformation.

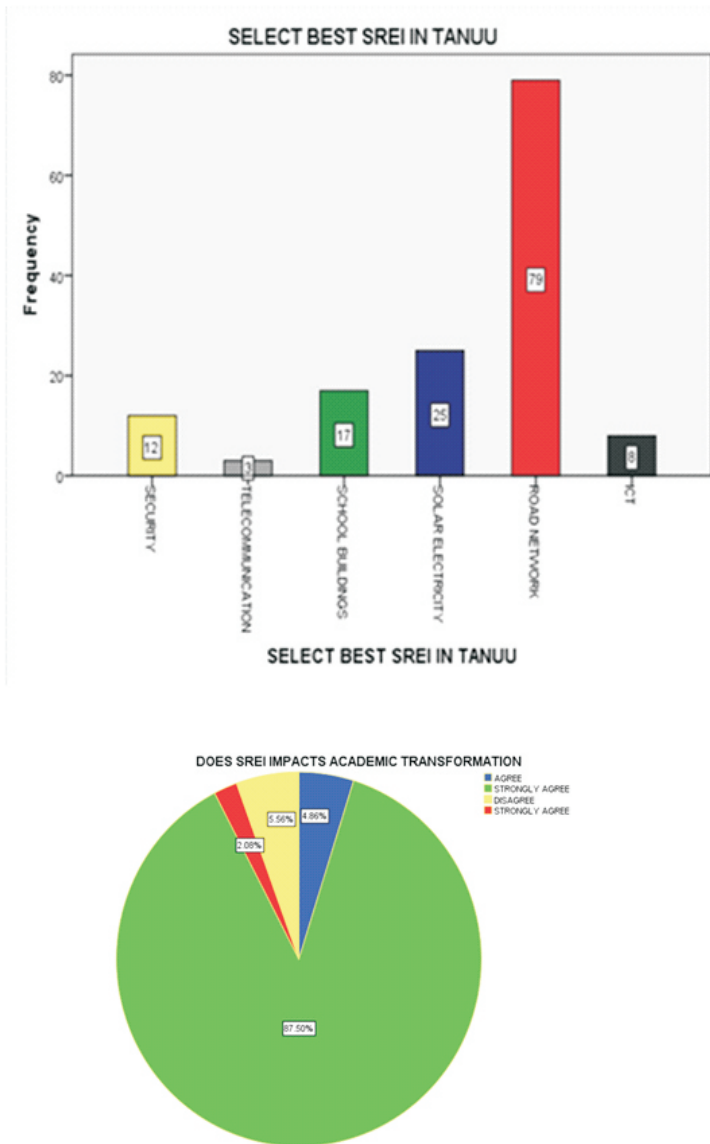
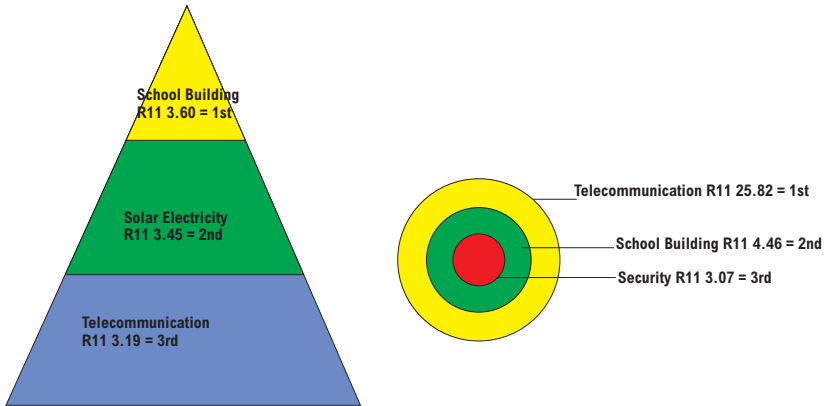


Figure 4.4 shows the relevant important index the SREI that urgently needed for the purpose of improve services both to students and staffs of Tansian University community



## Discussion

The goal of this study is to evaluate imperative of sustainable real estate infrastructure as a tool for academic growth and transformation, an insight leadership of E.O. Nwadiolor. Our finding reveal that Tansian University, under this present administration have made a land mark achievement for instance building new lecture halls, improved security outfit, sinking of borehole water project and currently the ongoing hostel construction etc. Our respondents suggested that road network, security, and availability of water is a top notch in the university community while the hostel, some lecture halls and ICT facility needs an upgrade. This study discovered that the pressing need at the moment is hostel, telecommunication and security around the hostel.

## CONCLUSION

Findings in this study attest that this present administration in Tansian University is really working hard. This study is an attempt to examine the particular SREI need at the moment so that the

attention of the management will be channeled in that right direction.

## RECOMMENDATIONS

- The urgent need for corrective maintenance in all the concerned buildings as a means of restoring the property value.
- The management should solicit for partnership with telecommunication providers as this will aid the academic transformation and assist in the implementation of CCMAS.
- The provision of SREI is usually expensive. The management should provide each base on priority hence the university does not receive subvention from anybody except tuition fees and donations.
- Orientation on (SREI) and enactment of fiscal policies will regulate vandalism.

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