



## **Application of the Principle of Soft Landing in Fund (TET Fund) Building Projects in Nigerian Tertiary Institutions.**

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### **Abstract**

*The research serves to explore the Application of the Principles of Soft Landing in Tertiary Education Trust Fund building projects in North Western Nigerian Tertiary Institutions. This was accomplished through the study of 119 building projects in 12 tertiary Institutions in the region. After effects of the examinations completed and the investigation of the information acknowledged from respondents uncovered that the Principle of Soft Landing does not have any significant bearing in the Nigerian setting as 75% of the projects executed within the period of five years don't have over a year of building aftercare from constructors as no system (66%) was set up for broadened aftercare. 94% of respondents concurred that such stretched out aftercare will enhance such sorts of projects later on. It was recommended that the Principle of Soft Landing be acquainted with Tertiary Education Trust Fund both directly and through seminars and paper presentations within the experts in the Nigerian Construction Industry to expand its application and Law makers are encouraged to sanction law for all public projects to appreciate such a principle.*

**Keywords** *Principle of Soft landing<sup>1</sup>, Tetfund Building Project<sup>2</sup>, Construction Industry<sup>3</sup>, Nigerian Tertiary Institution<sup>4</sup>, Public Construction Project<sup>5</sup>*

## Introduction

The Tertiary Education Trust Fund (TETFUND) was set up as an intervention agency under TETFund Act, (2011); and charged with the duties regarding overseeing, disbursing and monitoring education tax revenues with one of its objectives being to ensure successful completion of intervention projects in public tertiary Institutions in Nigeria. TETFund was set up because of poor funding of the educational sector by successive governments which conveyed shakiness to the sector coming full circle into departure/flight of exceptionally qualified work force and unremitting strikes among others. The Act forced 2% Education charge on the available benefits of all registered companies in Nigeria collated by the Federal Inland Revenue Service (FIRS). TETFund likewise screens such activities with one being fundamental physical infrastructure for teaching and learning and to enhance quality of education. Bagworo, S. (2015) noticed that TETFund was "reestablishing trust in Nigerian Tertiary Institutions" however Larry, E.U and Joseph, O. (2014) prescribed "use of legitimate and capable contractual workers in executing TETFund ventures" yet did not identify with the Facility Management (FM) end of the inventory network albeit noticed that administration undertakings were by and large inadequately funded prior to the establishment of the scheme. NEITI (2013) affirmed TETFund dispensed one hundred and two billion Naira for development projects in 2011 alone, which is an expansion to the earlier year by more than

200% which demonstrates movement in such activities yet on the increase. TETFund (2014) rules on construction related projects considered the triple constraints of

Cost, time and quality yet are not BIM compliant in this way forgetting the FM out of the overlay. This requires an address for future undertakings particularly with the greater part of assets portion to give esteem for cash. The Bureau of Public Procurement (BPP) which is the administrative power in charge of the observing and oversight of public procurement in Nigeria with core objectives of Economic Efficiency, Competition, Value for Money and Transparency don't include the end clients in assessing such building projects along these lines making a vacuum which should be tended to however such measures as debarment are set up for non-performance of contractors.

Building construction is becoming more intelligent particularly in mechanical and electrical (M&E) perspectives with complex operational results. The present Nigerian Policy on Education is equipping and spending more on Science/Technology based tertiary Education on a 70 % admission ratio, Odukoya (2009) kept up that the acknowledgment of "education and development" are the strengths following up on ""commitment"" and pointed "intense deficiencies of infrastructure and offices at all levels". TETFund is bridging this gap however will require enhancements particularly in the handing over of building projects which

seems to be like a change in batten in a race. The UK Government's presentation of BIM4FM was proposed by, P (2005) "to ensure that FM end of the supply chain could proceed onward and not get stock in the beginning piece", what relevance does it have in the Nigerian setting? BIMFM is included with the "Principle of Soft Landing" as expressed by Mark Way and Billboards (2005) as "" where a designer and builder are resident on site amid the move in period permitting it to manage rising issues all the more successfully. The move to 70% inductions into science and innovation programs in Nigerian Tertiary Institutions as a Government approach makes such structures smarter in their M&E angles and with soft landing being a "cradle to occupation process" BSRIA (2012), carried out up to three (3) years after project completion. It helps to deliver truly sustainable buildings where 13 consideration is being given at the early design stage for manageability and ease of use moreover characterizing execution targets. By what method will it better TETFund building ventures in the Nigerian setting? Nigeria is divided into 6 geological zones with the most populace zone tolling at 22.5% being the North West which consists of Kaduna, Katsina, Zamfara, Sokoto, Kebbi and Kano States. Level of Literacy is under 60% in this way putting a ton of undertakings in school infrastructural developments to support this level of literacy to a projection of over 80% proficiency by 2020. There are a lot of infrastructural developments set up by various TETFund derived projects ranging from Classrooms, Libraries, Sport buildings, students' hostels, Laboratories, Computer Labs and so forth.

### **AIM of the Research**

The study aim to assess how the use of soft landing principles can be applied in TETFund building projects in Nigerian Tertiary Institutions.

### **OBJECTIVES**

- i. To discover Nigerian Policy (the off chance that it exists) on soft landing in TETFund building projects in its Tertiary Institutions.
- ii. To assess whether the principle of soft landing can be effectively used in TETFund building projects in Nigerian Tertiary Institutions.

### **METHOD**

This study was conducted within 19 North western Nigeria tertiary institution Tetfund Building Project. Data was collected through review of related literature from reading materials, high impact Journals, periodicals, and the utilization of web in getting writing identified with the project topic.

Well-structured questionnaires to be administered to experts in the construction industry, clients and Academics in view of the topic.

.Personal meetings will be held to get direct firsthand information on the topic.

.Bar charts, pie charts and histogram will be utilized in analyzing data from interviews

## DISCUSSION

### Pie Charts and Bar graphs

1. What types of buildings has TETFUND built in your Institution within the past five (5) years?

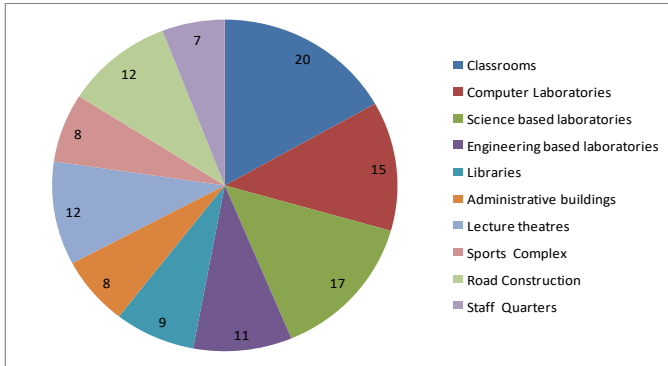


Figure 5.

2. Is the Estate and works department involved in planning process?

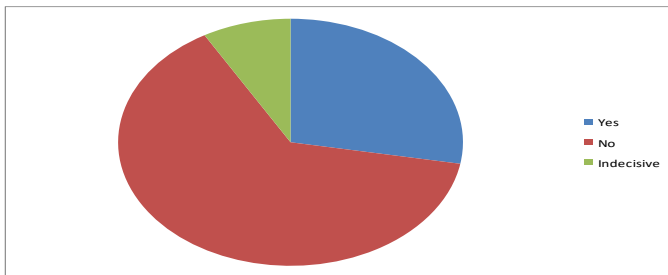


Figure 6.

3. Is the Estate and works Department involved in the building production process?

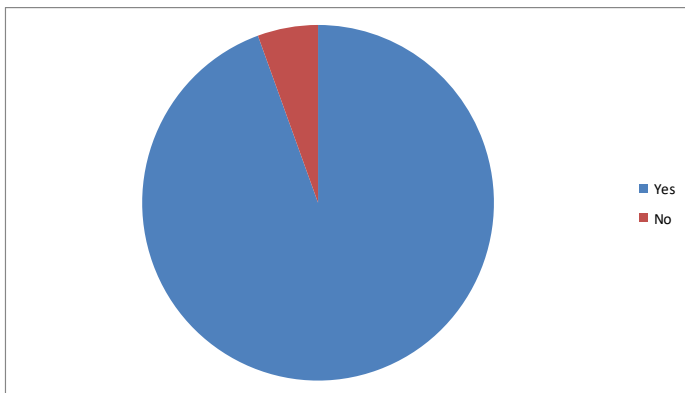


Figure 7.

3. Who within the estate and works department oversee the following with respect to building production process?

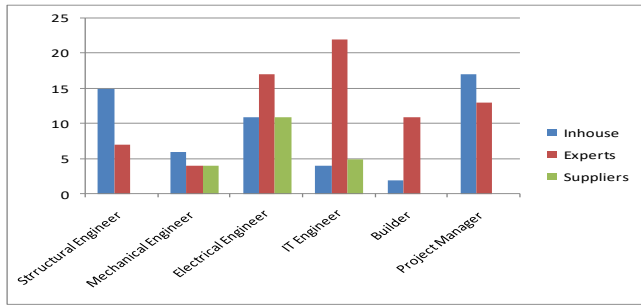


Figure 8.

5. Is there any system set up for construction designers to remain in place/involved with the building beyond practical completion?

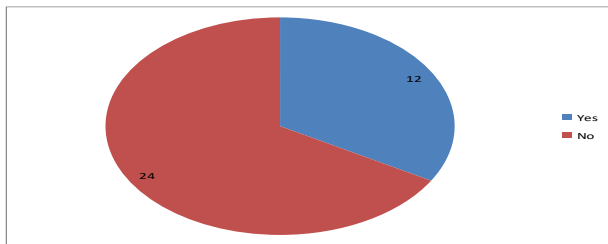


Figure 9.

6. Do they remain beyond defect liability period?

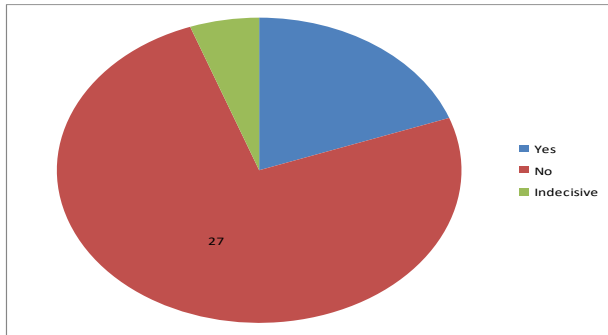


Figure 10.

7. Who sets Key Performance targets (what KPIs) on energy use?

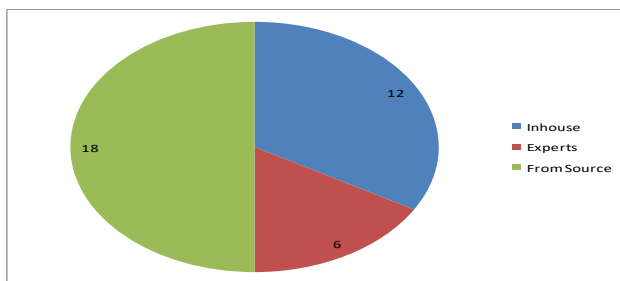


Figure 11.

8. Which of the following exist with the projects executed?

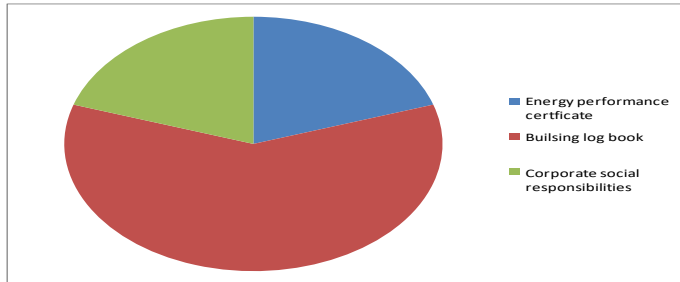


Figure 12

9. Were all buildings operationally ready before moving in period?

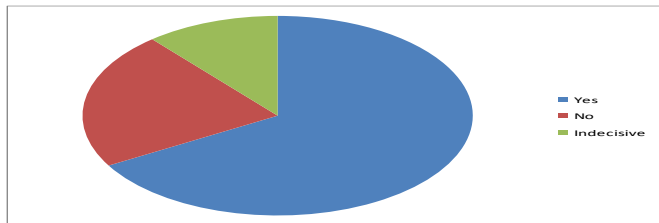


Figure 13.

10. How many years of aftercare of building exist?

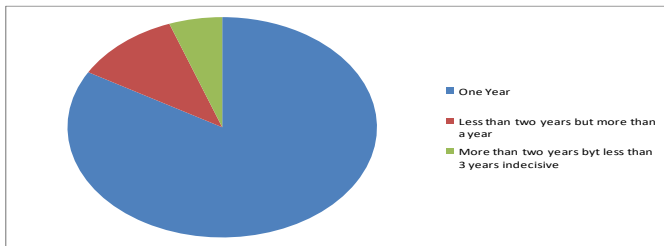


Figure 14.

12. Will stretched out aftercare improve value to client's buildings (say 3 years)?

Figure 15.

1. Rate areas of weakness that are threats to the buildings.

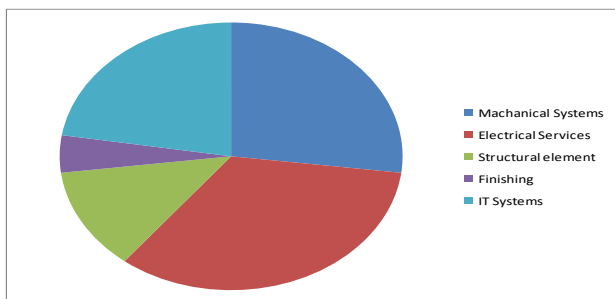


Table 3.1 reveals that various types of building projects have been executed by TETFund ranging from classrooms, computer laboratories science based laboratories, administrative buildings, lecture theatres, sports complexes, road construction and staff quarters.

Table 3.2 asserts that 27% of such projects involve them in the planning stage.

Table 3.3 pictures 94% of such projects involve the estate and works department of the Institutions in the construction process.

Table 3.4 indicates that various aspects of construction are overseen by in house professionals and hired experts, only few are overseen by suppliers.

Table 3.5 specifies that 66% of the projects executed have no mechanism in the place for designers/constructors/suppliers to remain in place/involved beyond practical completion only 33% had such mechanism.

Table 3.6 reveals that 75% of contractors leave after defect liability period with only 25% of such contractors who remain for some time after defect liability period (which is one (1) year).

Table 3.7 shows that 50% of such projects set their performance targets from the source (Federal Government), 33% are set in-house while 16% involve experts.

Table 3.8 reveals that 33% of the projects had building logbook, only 11% have energy performance certificate and 16% are compliant to corporate social responsibilities.

Table 3.9 stipulates that 66% of the projects were completed before moving in periods while 22% were not.

Table 3.10 indicated that 83% of the projects had only a year for after care while 11% had slightly over a year.

Table 3.11 indicates that 94% of respondents agree that extended aftercare will improve client's value for money and building.

Table 3.12 reveals the areas of weakness which are threats to such projects namely;

- i. Mechanical – 60%
- ii. Electrical – 83%
- iii. Structural – 31%
- iv. Finishing – 11%
- v. IT Systems – 56%

## **CONCLUSION**

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From the results of the investigation and analysis of the discussion of such results, the following conclusions were arrived.

1. The Principle of Soft Landing can be applied in Tertiary Education Building Projects in North Western Nigerian Tertiary Institutions in that it will add value to public buildings although constructors do not exceed a year after practical completion on such sites presently.

2. Suppliers and experts are involved in collaboration with teams from In-house (Estate Departments) in sensitive areas of IT, Electrical and Mechanical aspects but not extended to building aftercare which makes such projects vulnerable to various threats of Post occupancy.
3. A high percentage of the respondents accepted that extended building aftercare will add value to clients' buildings thereby acceptance of the Principle of Soft Landing will definitely be a welcomed idea.
4. Based on the Nigerian Policy on Education, more of the buildings are science and technology based buildings (with a level of intelligence) with IT, Electrical and Mechanical complications.
5. The Principle of Soft Landing has never been utilised in the Nigerian context.

## **RECOMMENDATION**

My recommendations are:

1. The Principle of Soft Landing be introduced to Tertiary Education Trust Fund (TETFund) through seminars and paper presentations within the professionals in the Nigerian Construction industry by presenting the relevance of the Principle.
2. Training and retraining of Government personnel on the principle of Soft Landing is necessary through train the trainers programme.
3. The public should also be enlightened as extension of such principle be enjoyed within both public and private sectors of the Nigerian Construction Industry and extension to Africa.
4. Law makers (the Legislators) should enact a law providing for all public building constructions to enjoy the Principle of Soft Landing.
5. Inclusion of Building Information Modelling (BIM) into the university curriculum.
6. Corporate social responsibility is not a priority in Nigerian Tertiary Institutions especially in the area studied and that may be an area for further research.

## **What can be learnt for future projects/tasks?**

POE produces results in three phases to be specific;

- Operational audit, 3-6 months after occupation
- Project review, 12-18 months after occupation
- Strategic review, 3-5 years after occupation

Phase two is in its project review stage.

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