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Influence of Building Costs on Rents of Residential Property

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ABSTRACT

Cost in building development is established by aggregating the total sum expended for the acquisition and preparation of land, materials, labour, professional services as well as incidentals in the processes of building development. The total huge expenditure incurred in the cause of realization of a building project may reasonably influence the arbitrary rises in the rental values expected from buildings. Presently, the trend in State capitals in Nigeria is such that the effect of the rising cost of production of a building often leads to the increased rental values. This study reviewed how the total cost of production of building influences the rental values of newly completed residential building accommodations. Based on findings, it recommends for adherence and stemmed advocacy in the use of local building materials, such as the stabilized muds, burnt bricks, fibre-cem roofing tiles and so many other products, so as to reduce the cost of buildings; thereby, lessening the anxiety of developers at recovering their capitals at the shortest possible times.

Keywords: Building, Cost, Rent, Tenant, Materials, Labour

INTRODUCTION

Cost, according to the [1], is “the total amount of money that needs to be spent by a business” or “the amount of money needed in order to buy, or do something”. Cost in building development is established by aggregating the total sum expended for the acquisition and preparation of land, materials, labour, professional services as well as incidentals in the processes of building development. [2], identified “total cost, average cost and marginal cost. Total cost “represents a sum of all production costs incurred at a given point in the production process. Average cost is used to describe the proration of total costs among the various units of output; and, marginal cost represents the addition to total cost associated with the production of each last additional output. Costs influence rent in the building investment in that while cost is associated with the input for the production of building; the output is therefore, the returns on the investment, which is the rent the building will be commanding. [3], [4], [5] thus observed the “cost-in-use” concept as the technique applied at the preliminary stages of a development or building projects to assist in the determination of the best materials to be incorporated in the development. “Each item is considered in terms of its initial cost, annual maintenance cost, and expected life span”. This is summed by [3] to be “the present value of all cost over the life span of the building. Therefore, this becomes a best guide to the determination of the rent which the premises may command after development. Initial costs in building development can be managed to control inflated rent if the effective application of the cost-in-use approach is adopted as a design tool [3]; [6]. [6] observed that depending on the circumstances, cost reduction and utility maximization designs can be effected using any or a combination of the options, below: -

- i. The Core (Nuclear) housing concept which “allows residents to adapt and modify their spaces according to their evolving requirements, desires and reconfiguration of the socio-domestic needs and demand on houses.

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- ii. Grow Home Concept – this reduces the “overall size of the building (with) availability of some unpartitioned floor space which users could finish as their budget allows”.
- iii. Prefabrication and industrialization are the production of building components at the construction site using machines.
- iv. Optimization of plan-form Geometry is the design principle which tends to reduce “material energy consumption by simplifying the housing units configuration or housing form geometry”.

Cost of building development indicated spiral inflation over the years that [7] reported the following price regime of the various building materials obtainable in 2004 that was compared with the price index contents of the Annual Abstract (1999) of the Federal Office of Statistics, Abuja, Nigeria.

The Problem

The total huge expenditure incurred in the cause of realization of a building project may reasonably influence the arbitrary rises in the rental values expected from buildings. [8] was of the view that developer’s reward and motivation for assuming development risks is primarily the expectation of realizing developer’s fee and profits. This profit essentially represents the difference between the value of the developed real estate,...and the cost incurred in executing the development. Expressed in absolute terms, the developers’ profit must be adequate to compensate for the risks, anxiety, effect and the developers own equity capital required for successful execution of the development idea”. [7], observed the existence of high cost of housing production in Nigeria. Hence, State capitals in Nigeria are not left out in the trend. The trend therefore, make it necessary to relate the effect of the rising cost of production of a building to the increased rental values being experienced at the moment. This study investigates how the total cost of production of building influences the rental values of newly completed residential building accommodations.

Entrepreneurship in Residential Building Accommodation Investment The Building

Understandably, [1], defined a building as “a structure that has a roof and walls”. Some of the purposes which a building can be used include houses for human shelter; school; hospitals and offices for institutional accommodation, stores, warehouses etc. for commercial purposes; shades, stalls etc. for facility reasons. Generally building provides accommodation for its use. [2] identified such as “keeping the floor plan functional and liveable” by designing to achieve convenience of care and enhancement of family living. Expectation, according to [9], “is that a good designed building should embody the principles of commodity...” which embraces usefulness and functionality of fitness of purpose, and the ceremonial or symbolic interrelationship of space”. [6], canvassed for optimality of functional design parameter; and social effectiveness “which are to avoid waste at either the peak or at the minimum amplitude of oscillation of function” and “the ability to satisfy social demand by responsiveness to the dynamism of changes of these social demands in time space”.

Building Process

Initiation of a building process among other things according to [2] include “choosing a desirable neighbourhood (and) selection of a serviceable lot”. [10] observed the first step in starting a building to be the “preliminary site works which include “choice of site, access, temporary services, shelter, site work and setting out” [11] observed “survey and setting out” which will involve “location, setting out, site organization etc. Other processes in building include assemblage of materials, equipment and workmen. The actual building work commences with foundation which includes trenches, timbering, placement of mixed concrete and laying of foundation walls. Further steps in achieving buildings are the laying of the walls with bricks, blocks or other fabrics; the construction of the roofs, finishes, painting, electrical installations, services and utilities.

Materials Used in Building Construction

Materials used in building include concrete which is the mixture of mineral aggregate and binding material such as Portland cement [11]. When concrete is strengthened with steel rods in structures, it is termed “reinforced concrete”. Other materials include cement, aggregate of either crushed stone or gravel; which could be coarse or fine aggregates, timber, metals usually ferrous and non-ferrous, (under this are iron-cast, wrought or steel iron; aluminum, copper and copper alloy, zinc), plastics e.g. the Polyvinyl Chloride (P.V.C.) etc.

Cost Associated with Building Investment

[3], summarized cost as “a measure of past expenditure resulting from ownership and utilization of a property”. Hence cost of building includes the costs associated with the various material components used in the production of the building. It further includes costs arrived at in the nature of site acquisition and preparation; and professional charges, including labour; cost of finance as a major component; as well as the entrepreneurial profit. [3], summed them up to “cost of building miscellaneous items, (including) cost of finance and development profit”.

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His concept as applied in building agrees with the [2] “total cost concept” which “represents a sum of all production costs incurred at any given point in the production process”. [5], believed that “the most accurate method of arriving at costs of work” is by preparing a “bill of quantities” and for this bill to be priced by a Quantity Surveyor or Contractor. There are factors that influence costs in building processes. Location or the site of the building is one; [6] observed design to be one major factor that influences the cost of buildings. [3], thought “delay in awarding contracts” through the tendering process which if delayed may fail the market index of building materials, thus adjusting cost up or down”. He equally observed “poor project administration and financing and delayed contractor payments as major bane of cost influence in building process”. [13], attributed the selection of high quality materials and space standards as invariably results in expensive housing products”.

Rent as Reward from Residential Building Accommodation Investment

The early economists, such as Karl Marx, Henry George and Ricardo “treated rent as an economic surplus, (thus) as payment to land owners that is not required to keep land in production”. [2], viewing rent as investment return, observed that “it is both logical and proper to view land rent as the economic return to land resources when one considers input – output relationships from the stand point of society at large”. [2] further observed that “most investors, owners and tenants however, tend to treat land rent as a return on their real estate investment” and that “tenants typically view their contract rental payments as an operating cost”. Rents can be appropriated monthly or yearly as the case may be; and when this is so [2] called it “cash rent” which is “when a lease calls for a fixed-cash rental payment”. Assumption ordinarily is that “the Landlord’s return is or should be adequate to cover his costs of property ownership (taxes, insurance, up keep and depreciation) plus a fair return on his investment”. [14] attributed the rising rents to demand pressure, housing supply shortage and high cost of construction. Also, [14], citing Financial Post of January 4, 1992 identified among other factors that influenced rent rise in Kaduna, as the “high cost of building materials which adversely affected housing supply. [5] in [14] agreed that “the factor of greatest importance in fixing rent is demand”. When the supply of buildings in the market are adversely affected by low production due to high cost of production, the tendency is for the demand for the few building in the market to be high with subsequent rise in the rent demands from landlords and vice versa if the prices of construction cost become low and buildings are over supplied to the market beyond the demand requirement.

Cost Influence on Rent Charges

Investments alternative according to [2] constitute one basis which relate performance vis-à-vis a prospective building investment, to ascertain the profitability of the worthwhileness of his adventure in building investment. Thus, “when the operator is production – minded in economic terms, he will carefully evaluate his investment alternatives and weigh his expected cost of ownership against the costs he would encounter as a non owner”. Further, [2] linked the “Risk of successful ownership” to a reasonable cost influence on rental values thus: once one has acquired ownership, he had the problem of maintaining his ownership rights. His success in this regard is conditioned by the supply of capital and human resources he had at his command, by the ability he shows in managing these resources, and his exposure to various risk factors which he summarized as the “risks involving over commitments and influence of personal and family factors”. [8], observing value reaction in a depressed economic situation saw “contraction of effective demand for real estate” which he observed may manifest in the form of increased vacancy rate and as a result may lead to pragmatic rent reduction. Equally, observed is that “both the operating expenses and debt services components of a property owner obligations may be increasing due to increases in the cost of property maintenance, cost of replacement of worn out building components and increases in the effective interest charged on building loans. (Thus) the effect of decreasing effective gross income in the face of increases in owner’s obligations (being) the residual equity yield will be reduced or eliminated completely. Further substantiating “Equilibrium Market Rental Rate” [15] observed that “the maximum amount of space that can be leased at any given point in time is limited by the existing stock of space”. They argued that “at lower market rental rates, some of the existing space may not be made available for lease” because “this space may be deliberately held vacant by owners in anticipation to higher market rents in the future”. The level of risk which an investor encounters in building does influence the investors return expectation. [15], felt that “many sources of risks... affect return on real estate investment by making such returns more variable”. Further observation is that “the higher variability in returns the greater the risk in projects”. [16], did join other scholars in “attempting to evaluate empirical contribution of architectural quality to the value of building”. [17] concluded that “we need both improved measures of these hard-to-quantify benefits and cost and greater use of the measures in economic evaluation of buildings”.

Cost Reduction in Building Construction Process

Building process as articulated in the foregoing, influences costs either positively or negatively through design, choice of site and neighbourhood or environmental factors, materials applied, labour and activities as well as overheads and incidentals such as transport, storages, security and delays in project execution. These costs can be drastically curtailed in the course of a building process to obtain a reduced total cost at the completion of the building activity. [6], observed the several options available to architects for house costs reduction through design. They itemized these in the form of:

- i. The Core (Nuclear) Housing Concept
- ii. The Grow Home Concept
- iii. Prefabrication and Industrialization
- iv. The Narrow-Front Development Concept
- v. Optimization of Plan-Form Geometry, and
- vi. Application of Design-Economy Indices

Cost reduction in building investment is as good as risk reduction in returns from building investment; and, as such [15] observed that “the investor can significantly reduce risk through diversification” by developing a portfolio of different investment properties. [18] felt that the application of local building materials such as Fibre-cem roofing tiles and burnt bricks in building processes will reduce cost of building to as low as 60% level. [3] advocated the reduction in the time taken to process tenders and award of public contracts to a barest minimum so as to avoid the inflation of building materials and other cost items. [3], in support suggested that reduction in the cost of houses could be achieved through reduction in selecting high quality materials in the construction of building as well as adherence to space standards in buildings, hence house affordability by the low income earners. [19], advocated for the use of the “mud, the traditional in-situ cast earth walls” which is known as the compressed earth called “compressed adobe brick” as a locally made (building) material will provide cheaper houses.

CONCLUSION/RECOMMENDATION

It is important to recommend for adherence and stemmed advocacy in the use of local building materials, such as the stabilized muds, burnt bricks, fibre-cem roofing tiles and so many other products in order to reduce the cost of buildings; thereby, lessening the anxiety of developers at recovering their capitals at the shortest possible times. It is equally time for investors in real property to realize that buildings are durable investment products which last much longer than other investments: and if well managed, continue to yield commensurate returns throughout their life cycle; that may be up to sixty years. Prospective tenants should therefore reduce the anxiety they exhibit when searching for accommodation so as to facilitate reasonable negotiations between the tenants and the landlords on what rents should be for building accommodation.

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