

PATTERNS AND MODELS OF BUILDING-USE CONVERSION IN METROPOLITAN LAGOS: INSIGHT FROM A COMPARATIVE ANALYSIS

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Abstract

The convergence of two related issues which impact negatively on the metropolis' residential sub-stock motivated this paper. Employing the purposive and random sampling techniques respectively to select its samples from the existing building stock in metropolitan Lagos, the paper compares models of building-use conversion in the metropolis. The study's questionnaire elicits information among others, on the physical design and selected socio-cultural attributes of individual buildings, including their use-conversion record. The major relevant questions answered by the paper include: To what extent is the current housing stock in Lagos metropolis differentiated by their design and cultural attributes among its classifiable urban regions; what is the magnitude and pattern of use-conversion experienced by the present housing stock in Lagos; and finally, what degree of convergence characterizes hypothesized models of building-use conversion which employs different spatial organizational conceptions of the metropolis. Findings among others reflect varied degrees of convergence and divergence in the selected buildings' attributes among metropolitan regions; differences in the degree of use-conversion that is negatively inclined against the residential housing stock, and differences among the models of building-use conversion that offer insight for improving on the effectiveness of physical development monitoring activity in the metropolis; as well as extending the existing perspective of research to the question of use-conversion.

Keywords: Lagos, logit models, metropolitan regions, residential stock, use-conversion

Introduction

A convergence of specific but related issues on housing in metropolitan Lagos, which impact negatively on its residential sub-stock motivated this paper. The first is the insufficiency of the housing stock over the years as attested to by a number of scholars (Oduwaye, 1998; Nubi, 2002 & 2008; Aluko, 2002 and Amao and Ilesanmi, 2013). The insufficiency has been ascribed to the ever-expanding streams of immigrants flowing into the metropolis from all the other regions in Nigeria, including the South-West to which Lagos itself belongs. The phenomenal immigration automatically revs up the demand for different housing needs which supersedes housing production rate in the metropolis.

This unmet need in the overall demand of the housing commodity has generated different responses. On its part, successive governments in Lagos have been making effort to increase the stock of residential houses through a number of partially or wholly-financed housing programmes. The effect of these interventions so far has been very negligible, primarily for two major reasons. One, there are many other departments such as health and education which are competing with housing for government investment attention. Two, the rate at which physical development is occurring along the metropolitan frontiers appears to be posing serious challenges to the metropolitan development-monitoring agency. The agency's response to the situation portrays more of helplessness than innovative thinking; and threatening to undermine the realization of the fundamental objective which originally informed the establishment of metropolitan development planning and control.

The role and influence of private property developers seem to contrast significantly with that of the government. To start with, this group has consistently been the major stakeholder over the years in terms of the quantum of property developed for different uses in Lagos. Nubi's (2008) paper explains the basis of this dominance. The motive of private developers, especially those who build primarily for rental purpose, is purely economic (Aina, 1990). Many in this category engage in speculative development of properties in different parts of the metropolis. Generally, only a negligible percentage

of such developers have sufficient capital to purchase landed property in the more competitive parts of the metropolis. The majority of them turn their attention to more distant locations from the metropolitan interior, where the cost of land is relatively cheaper, and making such regions the attractive hubs for the development of low- to moderate-cost properties in the metropolis.

The continuity of this phenomenon over time appeared to have undermined the supervisory capability of the metropolitan authority at ensuring strict compliance with the edict on physical development in the metropolis. As it often occurs in metropolis witnessing urban sprawl, the magnitude of government's supervisory resources fall short of the degree of urban explosion. The weakened capability of the government notwithstanding, assisting the populace in the provision of affordable housing as well as in the formulation of housing regulatory frameworks which treat every stakeholder equitably remains an undeniable responsibility of the government.

As part of its undeniable responsibility on housing, it is expected that the government would facilitate the process which would ensure continuous growth in the stock of available houses either directly or indirectly. The government must also monitor and regulate the dual process of property development and redevelopment to avert undue exploitation of the polity and ensure that safety standards and prescribed regulations are maintained by all developers in the metropolis. It is in this regard that the ordinance which regulates and makes prescriptions on property development generally frowns at property conversion without prior application and approval. The legal sanction for such contravention is outright demolition. The Lagos State Edict on Urban and Regional Planning and Development of 2005 is emphatic on this.

The review of this edict in 2007 downplayed the seriousness of the original sanction by making allowance for the payment of substantial fines for contraventions, both with respect to new property development and old property re-development in the metropolis. The basis for such a revision can only be imagined, especially when the government itself gave no explanation for its decision. One or more of three reasons may have informed such an edict revision. The first is the possibility that the supervisory capacity of the state's agency could not keep up with the rate of metropolitan property development arising from the urban sprawl. The second, which is also related to the first, is the fear that the cost of recruiting sufficient manpower to address the problem would raise the administrative cost astronomically beyond the financing capability of the government. The third reason could be that the government chose the edict revision as a fiscal means of up-shoring its financial base.

Whatever explanation informed the revision, its major drawback is its likelihood to trigger increasing contravention rate, given the weaker bargaining power of tenants in Lagos housing market, and the strong likelihood that the landlords would transfer imposed contravention fine to the tenants as rent increase. Besides, there is the possibility that the compromising edict may increase the proportion of structurally-substandard houses which constitute danger to the safety of lives and property of their occupants. The emerging scenario no doubt calls for accelerated research activity directed at unearthing the factors and patterns of building-use conversion, as well as how to devise more appropriate strategies that can assist in better tackling the enormity of the challenge posed by property-use conversion in Lagos metropolis.

The Research Problem

Given that public policies and their implementation strategies may not be completely static over time, the decision of the Lagos Planning Authority to review its position on the metropolitan physical development planning and control may not completely be out of place. However, to justify its continual relevance, any worthwhile exercise in policy revision must strive to maintain the most fundamental of the physical development planning objective(s) rather than compromising on them. One of the ways by which the planning authority can successfully address the enormity of its challenge is to apply Rochart's (1979) and Van der

Heijin's (1996) principle of the Critical Success Factor (CSF) in devising a solution. This principle has been successfully applied by many challenged organizations. It prescribes that management should determine what constitutes the most important objective of the organization and determine how to achieve them when their operating environment poses serious challenges to their realization.

The situation which compelled the Lagos Planning and Development authority to opt for policy revision is the enlargement of responsibilities beyond their operational capability, despite the laudability of the intention of the initial edict. The revised edict however, appears defeatist. First, it disregards the fundamental equity question between the tenants and the landlords arising from the introduction of the new policy. Second, it overlooks the inherent danger in the greater likelihood that economically-motivated developers will compromise safety standards of buildings under a framework which only imposes fines on contraventions contrary to its original practice.

In essence, the defeatist attitude of the revised edict is a result of its limited perception, which inadvertently overlooked other possible alternatives to address the regulatory challenge in the context of the principle prescribed by CSF to address compounding operational challenge. This implies that the challenge constituted by the super-expanding metropolis is a spatio-behavioural one that may be approached by employing spatial-disaggregating approach to analyze the phenomenon of property-use contravention in the metropolis. It is possible, for example in this context that the rate as well as the factors which underpin use-conversion may differ among the conceivable metropolitan regions, disaggregated by different criteria such as functions, ethnicity, and so on. The implication of this is that intense research activity is needed to determine the extent to which the expanding metropolis constitutes mosaics of use-conversion patterns and the extent to which such patterns are underpinned by similar or dissimilar factors. Results of such research would assist in determining among others, the extent to which observed differences in use-conversion among differently defined metropolitan regions are comparable, including the factors which underpin such decisions. Specifically, research findings would facilitate the identification of the core variables which constitute significant drivers of use-conversion, to be employed as target variables for devising efficient procedure for monitoring physical development and planning in the metropolis.

It is against the foregoing background that this paper analyzes use-conversion patterns of buildings in Lagos metropolis with the aim, among others, to determine its correlates for policy improvement. To achieve this primary goal, it will among others characterize the metropolitan housing stock in terms of the physical and socio-cultural attributes which impart on the likelihood of use-conversion decision; analyze the phenomenon of use-conversion in the metropolis to determine its pattern and magnitude; and finally, to develop and compare models of building-use conversion in the metropolis. The decision to compare use-conversion models developed for different spatial conceptions of the metropolis derives from the notion that a change in spatial organization or its conception may influence the manner and the extent to which specified correlates, which in this context are the correlates of use-conversion, would behave. This is an inference from one of Mabogunje's (1972) seminal works.

Literature Review and Conceptual Framework

The bulk of studies carried out on changes in the composition of urban landscape has focused on the macro-spatial analysis of entities within the urban landscape, known in geographical analysis as land-use change. The works of Adeniyi. and Omojola (1999); Alberti (2005); Catalán, Saurí and Serra (2008); Weng (2002); Sudhira, Ramachandra and Jagadish (2004);

Deng, Wang, Hong and Qi (2009); Onur, Maktav, Sari and Sönmez (2009); Shahraki, Sauri, Serra, Modugno, Seifolddini and Pourahmad (2011 and 2012) and Suribabu, Bhaskar, and Neelakantan (2012) are examples of relevant studies. The dominating interests of most of these scholars is the analysis of change trends among sub-categories of land-uses and the implication of such dynamics on the sustainability of future land-use requirements in the metropolis.

Other studies have extended the purview focused upon by these authors to include emerging issues competing for analytical and theoretical relevance in metropolitan studies. In this regard, scholars are examining how demand pressure impact on the morphology of the metropolis, in conjunction with the respective implications of transforming cities from a compact form to a sprawl. In their treatment of urban sprawl, researchers are examining critical metropolitan attributes such as density, concentration, continuity, proximity, centrality, clustering, nuclearity and mixed-uses. A number of scholars whose papers have dwelt on different dimensions of the highlighted themes include Lata, Rao, Prasad, Badrinath, and Raghavaswamy (2001); Haack and Rafter (2006) Catalán, Saurí, and Serra (2008); Jat, Garg, and Khare (2008); Sauri, Serra, Modugno, Seifolddini, and Pourahmad, (2011); Dadras, Shafri, Ahmad, Pradhan, and Safarpour (2014)

As much as the foregoing analyses have enriched knowledge and policies with regards to land-use dynamics in urban and sub-urban space, the question of changes in the use of urban facilities, particularly, the housing component in the developing cities of the world, characterized by gross housing deficiency is yet to receive commensurate attention. The focus of a few researchers such as Braimoh (2006), Oduwaye (2004) and Adebayo (2009) who have addressed approximate issues neither include the micro-level analysis of use-to-use conversion nor attempted a comparative modelling of the phenomenon.

Previous studies have identified the divergence between rapid population growth and lagging housing development as the underpinning factor for rising building-use conversion in such a magnitude that overstretched the government regulatory capability. The Agency on its part has perceived the enormity of the building-use contravention from the perspective of a metropolitan-wide challenge, rather than a problem that may be better approached by disaggregating the metropolis into sub-metropolitan areas. If a disaggregated approach of the metropolis improves our understanding of use-conversion in the metropolis, it implies that the holistic metropolitan-wide perception of the challenge of use-contravention has to give way to a disaggregated perception of the challenge thus reducing the enormity of the problem. The primary interest now reduces to how to achieve the greatest reduction in the metropolitan regions with the greatest concentration of use-conversion, rather than achieve large-scale reduction across the entire metropolis, which appears to be the major challenge which elicited the edict review. Emerging organizational strategy in line with CSF however does not necessarily require the attainment of a hundred percent goal; but rather to achieve a large percentage of an organization's goal with the minimum percentage of available resources.

The implication is that the planning agency and other interested researchers would have to intensify research to identify the minimum set of factors or variables which in combination account for the largest proportion of the decision to convert the use of property in the metropolis and compare it with results from different versions obtained from disaggregated analyses. Next is to see whether the identified variables carry similar weight of influence across the metropolitan regions, given that in a metropolis which approximates a mega-city in its attributes metropolis as Lagos local physical and cultural differences may influence the real

influence of each hypothesized variable. This implies that for very larger metropolis, the identity of the drivers of use-conversion as well as their relative importance may vary if the unit of analysis focuses on individual metropolitan sub-regions rather than the global metropolitan entity. Indeed this accords with Mabogunje (1972) view that organization of space or spatial arrangement impacts on the development process. This informs the analytical perspective of this paper which employs different criteria to configure Lagos metropolitan space into different sub-regions among which the attributes of the models of use-conversion are compared both for their theoretical and policy implications.

Study Area: Physical Characteristics and development Planning background.

Lagos state lies in the South-Western Nigeria, on the Atlantic coast in the Gulf of Guinea, West of the Niger River Delta. It is bounded in the North and East by Ogun State, in the West by Republic of Benin and in the South by the Atlantic Ocean. Lagos state is situated within longitude 2° 42' and 3° 42' East and latitudes 6° 23' and 6° 52' North. Metropolitan Lagos is the more built-up area of Lagos Mainland and Island in Lagos state. The administrative areas within the boundaries of Ifako-Ijaiye, Ikeja, Lagos Mainland, Somolu and Surulere Local Governments are the selected neighborhoods of the study.

Geo-physically, Lagos state lies within a coastal plain which is characterized by sand bars, lagoons and creeks. The height of land along the northern fringe of the state rises only slightly above the sea level. The terrain of its poor drainage and the tropical monsoon climate type explain the seasonal flooding in parts of the metropolis. The floodable nature of much of Lagos terrain explains the high costs of building construction generally in the metropolis, but most especially in regions that are adjacent to either the lagoons or the ocean. Likewise, housing redevelopment commands high investment which may influence the decision to either change the old use of a given property being redeveloped or to retain its original use.

The need for the central planning authority to forestall selfish interests of individuals and to ensure sanity in physical development and planning started in Lagos in 1917 when the then colonial authority enacted the Township Ordinance No 29, which though focused on the physical development concern of Lagos, was limited by its discriminatory implementation. Since then a number of changes have occurred in terms of development and planning legislation affecting Lagos metropolis. One of such was the 1992 Decree which confers planning and development regulations upon lower tiers of governance. Following its enactment, the Lagos government constituted its planning authority invested with a number of responsibilities, which include the preparation of a master plan and the application of land-zoning policy. Monitoring and controlling the physical development process in the metropolis was a major assignment of the new planning agenda, using land-use zoning and planning standards. In order to reduce and minimize the negative impacts which accompany physical development, development control was designed to be carried out with caution, firmness and a deep sense of responsibility.

The recent review of the property development control would likely frustrate any reasonable compliance with the land-use and zoning regulations, especially in an environment where corruption had been acknowledged in the past as a major factor constraining the effectiveness of the development control regulations. Its negative implications particularly in terms of its likelihood to distort the pre-existing profile of property-use in the metropolis to the disadvantage of weakly competitive uses like the residential use, is better imagined. In order words, residential buildings, which though have the largest demand profile but generally do not generate supplementary financial benefits for many occupants beyond accommodation

function, face increasing competition and use-conversion threat by contrastive uses. The role of research in promoting the original values inherent in town Planning remains invaluable and this informs the focus of this paper.

Research Methodology

The study employed questionnaires to gather the needed information, given that the appropriate government department had no relevant information on the building stock in the metropolis that could assist the cause of this research. Where necessary and possible, obtained facts from the questionnaire were further double-checked for confirmation. The survey focused on the collection of series of information on individual buildings, which includes its physical attributes and the relevant historical records which pertain to a change in the design, as well as on the disaggregated format of the three factors theorized as influencing the decision on use-conversion. The procedure for the data acquisition is elaborated further in the section following.

Data Collection Procedure

The primary data for the study was collected through multi-stage stratified sampling technique. The fieldwork was designed to reflect the statutory conception of Lagos in line with the decree that promulgated the creation of the stat in 1968. Following that conception Lagos metropolis comprises two of the traditional five regional planning districts of Lagos, namely Ikeja and Lagos divisions. The next step was to draw a large-scale map combining Lagos and Ikeja divisions to facilitate the selection of the relevant local government areas which reasonably approximate the character of the metropolis. The selected local governments were combined in three different formats to obtain the three spatial conception of the metropolis employed in the comparative analysis of the data. The first spatial conception was based on the historical-cum-administrative configuration of the metropolis, the second reflected differences in the commercial-activity intensity, while the third used the traditional geographical differentiation of metropolis into the core and the fringe. Difficulties encountered in the various attempts to get questionnaires to the ultimate source of information frustrated the original intention to include Victoria Island in the sampling frame.

Next, using an updated Lagos State Independent Electoral Commission (INEC)'s (2010) map publication on Lagos' wards and streets map, the study generated a comprehensive list of the major and minor streets in the different neighbourhoods of the selected Local Government Areas, which it further updated by physical inspection. For its purpose, it defined a major street as one which is not less than a kilometre in length, while a short street is less than one kilometre. Streets which fall respectively in the two categories were identified and labelled. The challenges of time and cost informed the decision to focus on just 30% sample of the updated street list.

Based on the perceived relative intensity of commercial-use of the study Local Governments, the 'administrative (Ikeja), the Colonial (Lagos Mainland) and the Post-colonial (Suru-Iere) were grouped as the high-commercial region, while the traditional (Somolu) and Ifako-Ijaye were regarded as the low-commercial region. The third conception of the metropolis combined four LGA's as core, recognising Ifako-Ijaye as the fringe as captured in Figure 1.

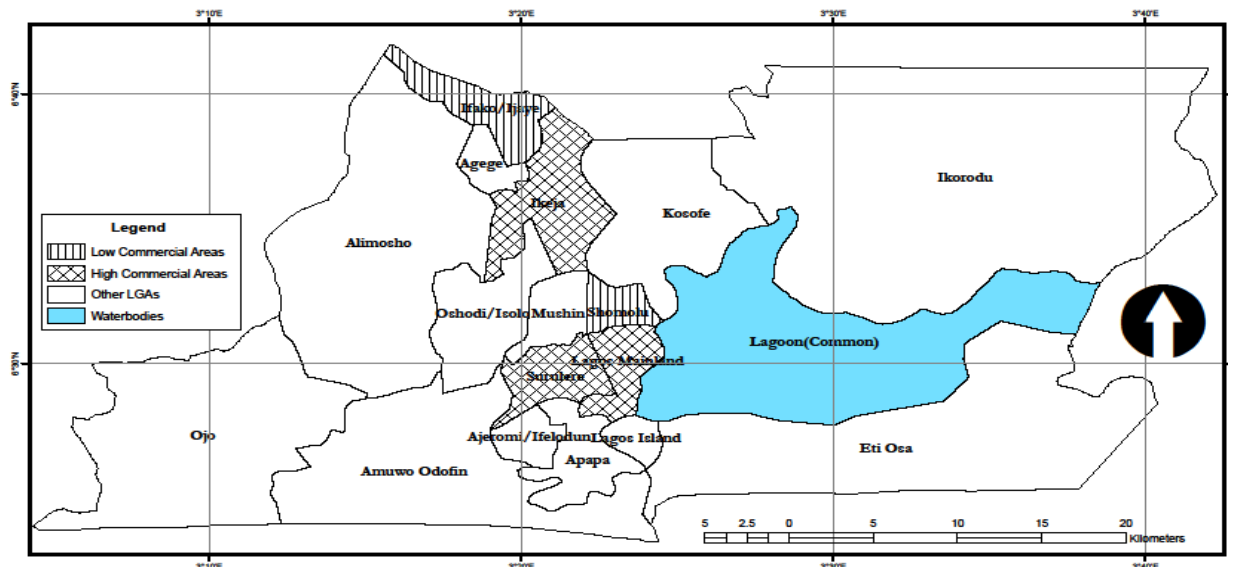


Figure 1: Lagos metropolis and the sub-regions of the study

The basic information elicited in the questionnaire among others include the approval or non-approval status of each building at completion, buildings' ownership, use-conversion and inheritance history as well as the physical and design attributes of each building. Using the probability proportionate to size (PPS) sampling techniques, the study sampled three (3) buildings from short streets and 6 buildings from long streets. A total of 729 questionnaires (Table 1) were distributed for administration but 585 were found analyzable based on the quantum of response to the various questions posed.

The study relied considerably on the assistance of the Community Development Associations (CDAs) in the neighbourhoods. The services of Research Assistants, who were familiar with the communities, were employed. They visited the CDAs during their monthly meetings for a period of six consecutive months (May-October, 2011) to identify and get familiar with the stakeholders in each neighbourhood. The coincidence of the fieldwork with the Lagos State Urban Renewal Programme which threatened to demolish all 'unsafe' buildings almost stalled the exercise, but for the involvement and the understanding of the CDA officials who had been well briefed of the academic nature of the research.

Table 1: Selected LGAs by questionnaire Administration

Neighbourhood of the Study	Questionnaire Sent Out	Valid Questionnaire	Percentage Valid
Lagos mainland (Colonial)	136	91	66.9
Surulere (Post-Colonial)	148	123	83.1
Ikeja (Administrative)	171	163	95.3
Shomolu (Traditional)	135	109	80.7
Ifako-ijaiye (Urban Fringe)	139	96	69.0
Total	729	585	80.2

In addition, personal records of observation on the state and quality of the buildings and neighbourhood were taken. Completion of the questionnaire could be done either by the

landlord or the tenant. When the respondent is a tenant, the one that had stayed longest in the building is the preferred option. Respondents were given opportunity to study and understand the questions while appointments were made when necessary for clarification/explanation on the raised questions and questionnaires were retrieved within two weeks of distribution.

Research Analytical Methods

The administered questionnaire and data from field observations were coded and analysed using relevant package in the Statistical Package for Social Sciences (SPSS) research to achieve the stated objectives. Frequency/percentile tables and matrices analysis in the form of the Markov Chain Transitional Matrix analysis was employed to capture building-use, use-approval, the dominant attribute and the inter-use conversion pattern in the study area. The binary logistic regression is used to establish the set of variables which significantly associates with the event of use-conversion in the metropolis.

Data Presentation and Analysis

This section analyses the data and discusses the results on the basis of the stated objectives. Table 2 captures some of the attributes of the sampled buildings. Columns 'a' to 'e' show how those characteristics vary among the sampled regions, while column 'f' depicts the cumulative pattern for the metropolis. The age pattern shows that buildings constructed prior to 1991 constitute 81.2 per cent of the entire metropolitan stock. Only 10% and slightly above 1% were constructed in between 1991-2000 and since 2001 respectively. Although the patterns among the regions tend to reflect the global picture, some deviations exist. All the older districts or regions showed higher modal percentage values in the pre-1991 category. Coincidentally, all the buildings sampled in the traditional district falls into the Pre-1991 category. The urban fringe on the other hand, which though also exhibits the Pre-1991 housing percentage modality, has the largest percentage value for 1991-2000 constructed houses (10%) and ranks third under the post-2011 constructed houses.

Table 2: Patterns of the descriptive housing attributes in selected metropolitan Districts

		Administrative (Ikeja) (A)	Colonial (Lagos Main) (B)	Traditional (Somolu) (C)	Post-colonial (Surulere) (D)	Urban Fringe (Ifako) (E)	Metropolitan Cumulative value (F)
Age of building	Before 1991	142 (87.7)	81 (87.1)	110 (100)	115 (92)	66 (68.8)	514 (81.2)
	1991-2000	20 (12.3)	9 (9.7)	-	9 (8)	25 (26.0)	63 (10.00)
	2001-2011	-	3 (3.2)	-	-	5 (5.2)	8 (1.3)
	Total	162 (100)	93 (100)	110 (100)	124 (100)	96 (100)	585 (100)
No of Floors at completion	One Floor	42 (25.9)	27 (29.0)	46 (41.8)	37 (29.8)	35 (36.5)	187 (29.5)
	Two Floors	87 (53.7)	44 (47.3)	54 (49.1)	74 (59.7)	50 (52.1)	309 (48.8)
	Three & more	33 (20.4)	22 (23.7)	10 (9.1)	13 (10.5)	11 (11.5)	89 (14.1)
	Total	162 (100)	93 (100)	110 (100)	124 (100)	96 (100)	585 (100)
No of rooms at completion	1-6	14 (8.6)	8 (8.6)	19 (17.3)	25 (20.2)	13 (13.5)	79 (13.5)
	7-10	33 (20.4)	21 (22.6)	28 (25.5)	18 (14.5)	24 (25.0)	124 (21.2)
	>10	115 (71.0)	64 (68.8)	63 (57.3)	81 (65.3)	59 (61.5)	382 (65.3)
	Total	162 (100)	93 (100)	110 (100)	124 (100)	96 (100)	585 (100)
Residential weight*	1-6	14 (8.6)	19 (20.4)	20 (18.2)	26 (21.0)	17 (17.7)	96 (15.1)
	7-10	33 (20.4)	18 (19.4)	28 (25.5)	22 (17.7)	30 (31.3)	131 (22.4)
	>10	115 (71.0)	56 (60.2)	62 (56.4)	76 (61.3)	49 (51.0)	358 (61.2)
	Total	162 (100)	93 (100)	110 (100)	124 (100)	96 (100)	585 (100)
Type Title holder	Non-transfer	117 (72.2)	67 (72.0)	77 (70.0)	83 (66.9)	44 (45.8)	388 (66.3)
	Transfer (inherited)	43 (26.5)	23 (24.7)	33 (30.0)	36 (29.0)	51 (53.1)	186 (31.8)
	Transfer (Commercial)	2 (1.2)	3 (3.2)	-	5 (4.0)	1 (1.0)	11 (1.9)
	Total	162 (100)	93 (100)	110 (100)	124 (100)	96 (100)	585 (100)

	Total	162 (100)	93 (100)	110 (100)	124 (100)	96 (100)	585 (100)
Owners' status	Yes	28	20 (21.5)	27 (24.5)	40 (32.3)	28 (29.2)	143 (24.4)
	No	134	73 (78.5)	83 (75.5)	84 (67.7)	68 (70.8)	442 (75.6)
	Total	162 (100)	93 (100)	110 (100)	124 (100)	96 (100)	585 (100)

Classification by the number of floors shows that at the summarized metropolitan level, buildings with a 2-floor design (48.8%) constitutes the modal class; followed by 1-floor type (29.5%) and the three-floor design (14.1%). Each of the five districts conforms to the aggregate pattern observed at the metropolitan level. Minor differences however exist in the proportional difference between the 1-floor buildings and those having 'three or more' floors. For Ikeja and Mainland, the gaps were 4.1% and 5.3%, in contrast to higher values for Somolu (32.7%), Surulere (19.3%) and Ifako-Ijaye (25%). The number of rooms in the table refers to what the situation was at the point of building completion and not the current time. The pattern shows that the modal category at the point of completion is the mega-room buildings, that is buildings having more 10 rooms constitutes the modal class considering the entire metropolis as one entity, and also for each of the sub regions. The maximum mega-room concentration is found in Ikeja (71%) while the least concentration of the minimum room category, that is 1-6 rooms are found in Ikeja and Mainland both, being 8.6% respectively.

The 'residential weight' attribute describes the number of a building's room that is devoted to residential purpose and uses the same classification scheme with the 'number of rooms' variable. Generally, it shows the extent to which residential use dominates buildings with smaller number of rooms relative to how it dominates buildings with larger number of rooms going by the current record. For the entire metropolis residential use enjoys 61.2% of the room space offered by buildings with mega-room accommodation, that is, those with 10 or more rooms. Buildings with medium-capacity room accommodation offer 22.4% space for residential use, while those with lowest room number provides 15.1% of their available rooms for residential use. Variations among the metropolitan districts on this criterion shows that only Ikeja (71%), and to a very marginal extent, Surulere (61.3%) surpass the metropolitan pattern with respect to the percentage of available rooms offered by mega-room buildings for residential purpose.

The title held over a property has three categories. The first in which the original owner still holds sway constitutes 66.3% for the entire metropolis. 31.8 are in the possession of inheritors, while 1.9% belong to entirely different owners who own them by purchase. The percentages of the original owners still retaining their title to the buildings are appreciably higher at Ikeja (72.2%), Lagos Mainland (72%) and Somolu (70%) than what obtains at the metropolitan level. It is however far lower at the fringe, that is Ifako/Ijaye. The maximum proportion of commercial transfer of property occurs in Surulere (4%), followed by the Mainland (3.2%), Ikeja (1.2%) and Ifako/Ijaye (1%).

The aggregate percentage of the buildings in which the owners reside, or co-reside with tenants amounts to 24.4% at the metropolitan level. This percentage is exceeded in Surulere (32.3%) and Ifako/Ijaye (29.2%) and slightly so in Somolu (24.5%). The next section interrogates the pattern of property-usage or designation at the time of completion.

Use-specification patterns of Buildings at Completion across the metropolitan districts.

Table 3 displays the pattern of building–use specification at the time of their completion, reflecting the three alternative perspectives of spatial organization of Lagos metropolis employed in this paper. Basically, it analyses whether or not differences exist in the magnitude and pattern of inter-use conversion of buildings, if the metropolis were to be re-arranged

spatially from three different perspectives, at the point of completion. Use-specification when reckoned at that point in time shows the overwhelming dominance of the residential purpose. It accounted for 96.6%, followed by 2.2% by mixed-use. It was slightly above 0.5% respectively for Commercial and Religious uses while Institutional use accounted for 0.17%.

Table 3: The original use-intention patterns of buildings at completion

Metropolitan Districts	Building Use Types					Total
	Residential	Institutional	Commercial	Religious	Mixed	
Colonial	89 (95.5)	1 (1.1)	-	-	3 (3.2)	93 (15.9)
Post-colonial	121 (97.6)	-	1(0.8)	1 (0.8)	1 (0.8)	124(21.2)
Administrative	156 (96.3)	-	1 (0.6)	1 (0.6)	4 (2.5)	162(27.7)
Traditional	109 (99.1)	-	1 (0.9)	-	-	110(18.8)
The Fringe	90 (93.8)	-	-	1(1.0)	5 (5.2)	96(16.4)
Total	565(96.6)	1(.17)	3(0.51)	3(0.51)	13(2.22)	585
Commercial use metropolitan conceptualization						
High Commercial-use	366 (96.1)	1 (0.3)	2.05 (0.5)	2 (0.5)	8(2.1)	379(64.8)
Low commercial use	199 (96.6)	-	1 (0.5)	1 (0.5)	5 (2.5)	206(35.2)
Total	565(96.6)	1(.17)	3(0.51)	3(0.51)	13(2.22)	585
Geographical (Core-Suburb) metropolitan Classification						
Core Region	475 (97.1)	1 (0.2)	3 (0.6)	2(0.4)	8(1.6)	489(80.4)
Suburb Area	90(93.7)	-	-	1(1.11)	5(5.5)	96 (19.6)
Total	565(96.6)	1(.17)	3(0.51)	3(0.51)	13(2.22)	585

The historical-administrative arrangement of the metropolis, given the comparatively larger number (5) of its sub-groups, exhibits greater degree of variations, compared to the commercial and the core-suburban categorization schemes which have 2 categories a piece. Residential use attains its modal value in Somolu where 99.1% of buildings at the point of completion were earmarked for residential use. The comparative figure for Surulere was 97.6%, 96.3% in Ikeja, and 95.55 for Mainland. The lowest indicated percentage (93.8%) occurs at Ifako/Ijaye. The indicated percentages for other uses were generally low regardless of which district is considered. It is only with respect to the mixed use category that all the districts, excluding Surulere, recorded values ranging between 1% and 5.2%; the other exception being the 1% of religious use of buildings at Ifako/Ijaye.

Although remarkable differences abound in the absolute number of buildings devoted to specific uses between the two categories of the High-commercial and the Low-commercial regional classification, their structures are, to a large extent, very similar. For example, the 96.1% originally earmarked for residential use in the High commercial area compares relatively well with the 96.6% in the Low-commercial region. Likewise, in both regions, 0.5% of their buildings were respectively designated for commercial purpose. Comparatively, the differences which characterize the structure of the original-use intention of buildings under the two regions of the 'Core-' metropolitan classification exceed what obtains between the commercially classified regions. For example, a greater proportion of buildings (97.1%) in the 'core region' at their completion were earmarked for residential purpose compared to the 'Suburb' (93.7%).

The current patterns of actual building usage contrast in varying degrees with what were the originally stipulated usage intentions. This implies that use-conversions have occurred, some of which have been associated with changes in such buildings' originally-approved designs with or without the necessary approval to do so. The next section examines illustrates the

pattern of inter-use conversion that took place between the earmarked uses of buildings and their current uses, irrespective of whether approval for such conversions were obtained or not.

Inter-Use Conversion Pattern by Metropolitan Regions

Tables 4a and 4b illustrate the inter-use pattern of building conversion across the metropolitan regions of Lagos. The first table illustrates the use-conversion pattern for the five-fold regional conception of the metropolis, while the second table illustrates the same information respectively for the other two schematic categorisations of the same metropolis. The general pattern shows that most of the buildings across the metropolitan region were conceived and constructed for residential-use and later got converted to other uses.

In Ikeja (Admin) area, residential usage retained only 16 per cent of the entire building stock originally conceived to serve that purpose, while there was no cross-transfer of buildings from other uses to residential purpose. It lost 10.3 per cent of its all-time cumulative stock to the 'commercial use', and experienced the maximum loss (71.2%) to the mixed use.

The colonial area (Mainland) experienced a very similar pattern to that of Ikeja, except that 6.7% of its current stock was a gain made from the 'mixed-use' category. In all, while it retained 15.7 per cent of its original stock, it lost 13.5% to commercial use and 69.7% to the mixed-use category. The observed loss pattern which characterised the Ikeja and Mainland is observable with the remaining three districts. Indeed, the peak of residential loss by the residential use occurred in Somolu, where it lost 85.2% of its residence-designated buildings at completion to the mixed use.

Table 4a: Inter-use conversion of buildings in Lagos metropolis' historico-administrative regions

Metropolitan Regions								
Region	From Initial use	Res.	Comm.	Ind.	To current use		Mixed	Total
ADMIN	Resid.	25 (16.0) 100	16 (10.3) 88.9	1 (0.6) 100	1 (0.6) 100	2 (1.3) 100	111 (71.2) 96.5	156 (96.3)
	Comm.	0	1 (100) 5.5	0	0	0	0	1 (0.6)
	Religious	0	1 (100) 5.5	0	0	0	0	1 (0.6)
	Mixed	0	0	0	0	0	4 (100) 3.5	4 (2.5)
	SUBTOTAL	25	18	1	1	2	115	162
COLONIAL	Res.	14 (15.7) 93.3	12 (13.5) 92.3	-	1 (1.1) 100	-	62 (69.7) 96.9	89 (95.7)
	Inst.	-	-	-	-	-	1 (1.5) 100	1 (1.1)
	Mixed	1 (33.3) 6.7	1 (33.3) 7.7	0	0	-	1 (33.3) 1.6	3 (3.2)
TRADIT.	SUBTOTAL	15	13	0	1	-	64	93
	Res.	13 (12.0) 100	2 (1.9) 100	-	-	1 (0.9) 100	92 (85.2) 98.9	108 (99)
	Comm.	0	0	0	-	-	1 (1.1) 100	1 (0.9)
POST COLONIAL	SUBTOTAL	13	2	0	0	1	93	109
	Resid.	27 (22.3) 96.4	11 (9.1) 100	1 (0.8) 100	1 (0.8) 100	-	81 (66.9) 97.6	121 (97.6)
	Comm.	1 (100) 3.6	0	0	0	-	0	1 (0.8)
	Relig.	0	0	0	0	0	1 (100) 1.2	1 (0.8)
	Mixed	0	0	0	0	0	1 (100) 1.2	1 (0.8)
Urban Fringes	SUBTOTAL	28	11	1	1	0	83	124
	Resid.	20 (22.2) 95.2	1 (1.1) 100	-	-	-	69 (76.7) 93.2	90 (93.6)
	Relig.	1 (100) 4.8	0	-	-	-	0	1 (1.0)
	Mixed	0	0	-	-	-	5 (100) 6.8	5 (5.2)
SUBTOTAL		21	1	-	-	-	74	96

Table 4b below shows how the pattern of gain and loss played out employing 2 other formats of Lagos metropolitan regionalization schemes. Under the commercial-use intensity scheme, residential-designated buildings in the ‘high-commercial’ area retained 18 percent and lost 82% to others, the maximum gain accruing as usual to the mixed use (69.7%), while residential use gained only 1.5% of its present stock from the mixed use.

In the low commercial regions, the modal percentage loss by residential buildings was 81.4% to the mixed-use which represents 93.6% of the current building stock held by the mixed use. Generally only minimal degrees of losses were recovered between other pairs of uses where they occurred at all. For example, in the High-commercial region of the metropolis, the losses by the institution use to the religions and mixed uses, represents just 4.2% and 0.4 percent respectively of the current building stocks held by the uses.

Also, the losses suffered by the mixed-use in the High commercial region of the metropolis amounted to 25% of its ever-held building stock. The losses translate to 1.5% of the total current stock of the residential use compared to 2.4% for the commercial-use. Use-transfer of buildings in the low-commercial region of the metropolis were relatively fewer, although residential-use buildings still suffered the most. For example it lost 81.4% of its cumulative stock to the mixed use, 1.5% to commercial use and 0.5% to religious use. Other losses that occurs involve losses by the ‘commercial’ and the ‘Religious’ uses to the ‘mixed’ uses. The gain from both sources amounted to 3.5% of the currently held building stock by the mixed use.

Use-transition of buildings based on the geographically categorized metropolitan regions shows the same tendency for the most pronounced loss by residential-use; the peak being 73.3% loss to the mixed use, while the lowest loss of 0.4% was to the commercial-use. In the core region of the ‘core-suburban grouping, for example, residential purpose lost 73.3% of its stock to the mixed use in addition to 8.3%, 0.4% and 0.6 per cent respectively to Commercial use, Industrial use, Institutional and Religion use respectively. Losses involving other uses were few in number and generally of low magnitude.

Building use conversion pattern in the suburbs replicates what occurred at Ifako/Ijaye under the regional metropolitan classification because the two regions by coincidence refer to the same spatial entity.

Table 4b: Inter-use conversion of buildings in Lagos metropolis (Commercial and Geographic regions)

Regions)

Commercial-use Intensity metropolitan regions								
	From	To current use						Total
	Initial use	Res.	Commerce	Indus	Inst.	Rel.	Mixed	
High Commercial	Res.	66 (18.0) <i>97.1</i>	38 (10.4) <i>92.7</i>	2 (0.5) <i>100</i>	3 (0.8) <i>100</i>	23 (6.3) <i>95.8</i>	255(69.7) <i>97.0</i>	366 (96.6)
	Comm.	1 (50) <i>1.5</i>	1(50) <i>2.4</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	2 (0.5)
	Inst.	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	1(50) <i>4.2</i>	1 (50) <i>0.4</i>	2 (0.3)
	Relig.	0 <i>0</i>	1 (50) <i>2.4</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	1 (50) <i>0.4</i>	2 (0.5)
	Mixed	1 (12.5) <i>1.5</i>	1 (12.5) <i>2.4</i>	0 <i>0</i>	0 <i>0</i>	0 <i>0</i>	6 (75.0) <i>2.3</i>	8 (2.1)
SUBTOTAL		68	41	2	3	24	263	379
Low Commercial	Res.	33 (16.6) <i>100</i>	3 (1.5) <i>100</i>	-	-	1 (0.5) <i>100</i>	162 (81.4) <i>93.6</i>	199 (94.8)
	Comm.	0 <i>0</i>	0 <i>0</i>	-	-	0 <i>0</i>	1 (100) <i>0.6</i>	1 (0.5)
	Relig.	0 <i>0</i>	0 <i>0</i>	-	-	0 <i>0</i>	5 (100) <i>0.6</i>	5 (2.4)

		0	0			0	2.9	
	Mixed	0	0	-	-	0	5 (100)	5 (2.4)
		0	0			0	2.9	
	SUBTOTAL	33	3	-	-	1	173	210
Geographical Classification								
Core	Res.	79 (16.7)	39 (8.3)	2 (0.4)	3 (0.6)	3 (0.6)	346 (73.3)	472 (97.3)
		95.0	92.86	100	100	100	98.30	
	Comm.	3 (75.0)	1 (2.4)	0 (0)	0 (0)	0 (0)	0 (0)	4 (0.8)
		3.6	25					
	Inst.	-	-	-	-	-	-	-
	Relig.	0 (0)	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)	1 (0.2)
			2.38					
	Mixed	1 (12.5)	1 (50)	0 (0)	0 (0)	0 (0)	6 (75)	8 (1.6)
		1.20	2.38				1.70	
	SUBTOTAL	83	42	2	3	3	352	485
Suburban	Resid.	20 (22.2)	1 (1.1)	-	-	-	69 (76.7)	90 (93.8)
		95.2	100				93.3	
	Relig.	1 (100)	0	-	-	-	0	1 (1.0)
		1.7						
	Mixed	0	0	-	-	-	5 (100)	5 (5.2)
							6.8	
	SUBTOTAL	21	1	-	-	-	74	96

So far, the patterns of losses and gains respectively among building-use categories and urban regions have been examined to a large extent above. The following section examines and compares three logit models of use-conversion, each of which employs different spatial configuration purview of Lagos metropolis, to determine the degree of their comparability or differences; employing the statistical significance levels of the hypothesized variables of use-conversion in the models.

Comparative Logistic Models of Use-Conversion in Lagos metropolis

Table 5 summarizes the result of the three logit models of use-conversion of building in Lagos using three different schemes in classifying the metropolis into different regional groups. The result in model 1 depicts the relative importance of each of the hypothesized 9 variables, when the metropolis is disaggregated into the five 'historico-administrative' regions. In model 2, the metropolis is disaggregated into two regions, namely the 'high' and the 'low' commercial regions, likewise in model 3, the metropolis is categorized into two, but in the context of the 'core area' and the metropolitan 'suburb'.

The set of variables which display significant explanation in models 1 and 3 are identical. First, the spatial organisation variable of the metropolis, which is captured by the variable 'Area', is significant in both models, at $p=.016$ in model 1 and $p=.027$ for model 3. In model 2 however which compares use-conversion in the context of difference commercial-use intensity, the variable 'Area' exhibited no statistical significance. The similarity in the results of the variable 'Area' in models 1 and 3 appears very logical. Specifically, model 3 which employed the geographical perspective of the 'core-suburb' differentiation produced 2 metropolitan regions, one of which is a merger of 4 of the 5 sub-groups in model 1. Model 2 on the other hand reclassifies the Administrative (Ikeja), the Colonial (Mainland) and the Post-Colonial (Surulere) regions as the high commercial region against the Fringe (Ifako/Ijaye) and the Traditional (Somolu) regions as the 'low commercial region'.

Other variables with high level significance explanation power for both models 1 and 3 include Age ($p=.049$ in model 1 and $p=.034$ in model 3); Floor, that is, the number of floors: for model 1, the p -value is 0.27 against .033 for model 3. The variable 'owner' which indicates whether it is entirely 'owner-occupied' or 'owner-and-tenant occupancy', the significance level is less

than .001 in both models. The same degree of significance, that is $p < .001$ characterised the variable ‘type of title’ in the two models.

In model 2, although the variable ‘area’ commanded no statistical importance, the variable ‘approval’, which depicts whether the building got construction approval, showed statistical significance ($p = .045$) in contrast to its insignificance in models 1 and 3. This implies that when the metropolis is

Table 5: Comparative Logit models of the use-conversion event in the three depictions of Lagos metropolis

Variables in the Equation	MODEL 1				MODEL 2				MODEL 3			
	B	Wald	Sig.	Exp(B)	B	Wald	Sig.	Exp(B)	B	Wald	Sig.	Exp(B)
AREA		12.133	.016*		-	-	-	-	-	-	-	-
AREA(1)	.551	1.729	.189	1.735	.253	1.066	.302	1.288	-.808	4.898	.027*	.446
AREA(2)	-.176	.306	.580	.839	-	-	-	-	-	-	-	-
AREA(3)	-.086	.055	.814	.917	-	-	-	-	-	-	-	-
AREA(4)	-.925	6.595	.010	.397	-	-	-	-	-	-	-	-
AGE	-	6.091	.048*	-	-	8.736	.013*	-	-	6.763	.034*	-
AGE(1)	-2.669	5.329	.021	.069	-3.014	7.127	.008	.049	-2.719	5.537	.019	.066
AGE(2)	-2.307	3.751	.053	.100	-2.519	4.668	.031	.081	-2.275	3.653	.056	.103
APPROVAL	-	.518	.772	-	-	6.192	.045*	-	-	.773	.679	-
APPROVAL(1)	-.395	.512	.474	.674	-.758	2.020	.155	.468	-.480	.773	.379	.619
APPROVAL(2)	-.308	.264	.608	.735	-.057	.010	.922	.944	-.401	.458	.499	.670
MAINUSE	-	.280	.991	-	-	.090	.999	-	-	.255	.993	-
MAINUSE(1)	.209	.094	.759	1.232	.178	.065	.799	1.195	.148	.047	.828	1.160
MAINUSE(2)	.880	.241	.624	2.410	.425	.055	.815	1.530	.834	.254	.614	2.303
MAINUSE(3)	18.793	.000	1.000	.000	19.453	.000	1.000	.000	18.741	.000	1.000	.000
MAINUSE(4)	-.008	.000	.996	.992	.240	.024	.877	1.271	.136	.006	.936	1.145
FLOOR	-	7.214	.027*		-	7.230	.027*	-	-	6.833	.033*	-
FLOOR(1)	-.074	.028	.866	.928	-.155	.128	.720	.856	-.155	.123	.726	.857
FLOOR(2)	-.713	4.993	.025	.490	-.731	5.474	.019	.481	-.714	5.191	.023	.490
ROOMS	-	.210	.900	-	-	.650	.723	-	-	.426	.808	-
ROOMS(1)	-.333	.186	.666	.716	-.398	.289	.591	.672	-.463	.376	.540	.630
ROOMS(2)	-.197	.142	.706	.821	-.401	.639	.424	.670	-.279	.288	.591	.756
RESIDENTIAL WEIGHT	-	1.656	.437	-	-	1.003	.606	-	-	1.587	.452	-
RESIDENTIAL WEIGHT(1)	-.379	.287	.592	.684	-.243	.129	.719	.784	-.201	.086	.770	.818
RESIDENTIAL WEIGHT(2)	-.613	1.624	.203	.542	-.452	.974	.324	.636	-.573	1.433	.231	.564
OWNER(1)	1.882	35.674	.000*	6.564	1.955	39.720	.000*	7.067	1.883	36.895	.000*	6.575
TYPETITLE	-	106.610	.000*	-	-	113.582	.000*	-	-	106.733	.000*	-
TYPETITLE(1)	-1.483	3.992	.046	.227	-1.472	3.946	.047	.229	-1.599	4.622	.032	.202
TYPETITLE(2)	1.540	4.412	.036	4.665	1.629	4.933	.026	5.100	1.379	3.535	.060	3.971
Constant	2.561	2.683	.101	12.954	2.842	3.511	.061	17.146	3.440	4.978	.026	31.197

analyzed in the context of comparing high and low commercial- use areas, those who decide and carry out property-use conversion often give serious consideration to the approval status of buildings.

Although model 2 differs from models 1 and 3 with regards to the significance relevance of the variable 'Area' as well as the 'number of floor', it however exhibits high level of statistical significance on the variable Age ($p=.013$), owner ($p<.001$) and Title type ($p<.001$) just like models 1 and 3. The other four variables, namely 'Main-use' the main use of a building, 'Room', the total number of rooms in a building, Residential weight, the measure of the current number of rooms used as residence in a building and a building's approval status were generally insignificant for the models 1 and 3.

Further Discussion of Results

Results obtained in the analysis show that residential use-conversion to other uses constitutes the event with the modal occurrence. Although this pattern persists regardless of the spatial categorisation scheme by which the metropolis is regionalized, the magnitude of loss by residential use under different regionalization scheme, as well as under the different metropolitan sub-region differs. For example, the greatest loss experienced by the residential use under the historical administration regionalization scheme was the 85.2% loss to the mixed use. The comparative values are lower for all the other four zones in this classification scheme. In the commercial-use intensity classification of the metropolis, the maximum loss also affected the residential use in the 'low-commercial' region, where it lost 81.4% of its cumulative stock to the mixed use. Comparatively however, the corresponding percentage loss (69.7%) was lower in the 'high-commercial' area. The modal magnitude of residential use conversion (76.7%) that occurred in the suburb of the third metropolitan classification scheme is the lowest of the three schemes. Analysis of the age of buildings, as expected, shows that the older metropolitan sub-regions account for the modal proportions of the metropolis oldest buildings. This perhaps explains why the highest modal value of 85% of residential use-conversion came out more prominently under the classification scheme which best reflects the relative 'oldness' of the different metropolitan regions.

Indeed, much of the variations observed in some of the attributes of the buildings appear to reflect the relative oldness of the buildings capture the sample. Hence Somolu region which represented the traditional area where the sampled building pre-dated 1991, the tendency for a single floor was most prominent here than the other metropolitan regions. It also explains why the magnitude of mega-room frequency building are lowest here than in the other metropolitan regions.

It is interesting to note that the urban fringe or suburb where the proportion of use-conversion is higher is also the place where the percentage of original owners which still remain the current owners is lowest. The implications of the results above became more evident in the result of the regression. In this respect, the two models which reflect better the historical progression in the evolution of the metropolis, that is, models 1 and 3, differ from the model that did not reflect it. Precisely, the variable 'area' in the two models, which coincidentally reflects the historical evolutionary trend of the metropolis exhibits significant explanatory results for the likelihood of building conversion in the metropolis. On the other hand, no such statistical significance characterized the variable in model 2 which reflects poorly the metropolis historical evolutionary trend.

Summary and conclusion

The study has analyzed the pattern of building-use conversion in metropolitan Lagos, showing its extent as well as the orientation of the conversion across different uses and using different metropolitan regionalization schemes to examine the extent to which it can affect the modelling relevance of the hypothesized variables. Hence a number of variables deemed to influence the

decision to convert the use of an existing property were analyzed. The study went further to analyze the actual pattern of inter-use conversion in the metropolis.

The ultimate analysis employed the different hypothesized physical and cultural variables to conduct the logit models of the likelihood of building-use conversion in the context of three regionalization schemes of the Lagos metropolis. Among other notable results, the selected physical and cultural attribute of the sampled buildings exhibit varied degrees of significance among the metropolitan regions. The 'age' profile of buildings tends to show that the older regions generally have greater concentration of old buildings. This also impart on some of their other attributes such as the number of rooms/building, average number of floors/building, current structure of ownership as well as the type of title hold on individual buildings.

The logistic regression analysis, apart from revealing the specific variables that exhibit statistical significance on use-conversion, shows that the manner in which the metropolis is spatially conceptualized in addressing any given problem will affect the relative importance of the hypothesized variables and by extension the type of strategy that would be effective in addressing such problem. This implies that in handling the problem of the issue of building-use conversion in Lagos, the government need not embark on solution that would focus on the entire metropolis. Rather, they need to identify the most prevalent significant variable of use-conversion and how they play out in each of the metropolitan regions considered.

The identified variables could be employed as the criteria for classifying and mapping the metropolis into relative region of susceptibility to use-conversion event or risk. Such classification and ranking of regions would assist monitoring teams assigned the duties of physical development, monitoring and control in the metropolis. To guarantee the long-term workability of the scheme, the government would be expected to commence the development of housing attribute data bank for the metropolis to enhance future research and facilitate strategy modification when necessary.

Given that the conditions which influence attitude to different issues often change, it is important that the commitment of research to monitoring the event of use-conversion should not just be a one-off exercise. It ought to be a continuous one so as to effectively gauge the extent to which changing socio-economic circumstances may be affecting decisions on the use-conversion of properties with or without formal approval among others. This implies that the dimensions by which research can assist in resolving the problem of indiscriminate use-conversion in the metropolis is expansive, such that the government need not adopt a resignatory attitude to the challenge but focus it with intelligent response.

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