Spatial Compliance with The Least Observed Provision of Building Law-Aquantitative Judgment Of A Legal Practitioner in Calabar Metropolis, Nigeria

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ABSTRACT:ThisstudywascarriedouttoexaminethespatialcompliancewiththeleastobservedprovisionoftheBuildingLawamongownersofBuildingsacrosstheresidentialdistrictofCalabarMetropolisinCrossRiverState.ThemajortypesofdatacollectedbytheresearcherforthestudyweredataonthephysicalvariablesofBuildingsprovidedforundertheCrossRiverStateBuildingLawof1984asamendedin1987anddataelicitedfromquestionnairesissuedtoownersoftheBuildings.ThephysicalvariablesincludedtheBuildingline,Ceilingheight,BuildingPlan,SetBack,Buildingsizerestrictions,Sizeoflivingroom,Heightofgroundfloor,Ventilation,SpacearoundbuildingandCorridordimension,alllegalrequirementsundertheextantLaw.ThemeasurementwastodeterminethelevelofcompliancewiththetenBuildingvariablesthathavedirectbearingwiththesafetyandhealthofpeoplelivingin,andaroundBuildingssoastoobservethespatialcompliancewiththeleastobservedprovisionofbuildingLawinCrossRiverState.ThedataobtainedwasanalysedusingStatisticalPackage(SPSS)version11.0.Thestudyemployedonewaymultivariateanalysisofvariance,withresidentialdistrictsasfactorandthetenprovisionsofthebuildingLawsasdependentvariables.ThisanalysissoughttoidentifythespatialcompliancewiththeleastobservedprovisionofthebuildingLaw,acrossthe13residentialdistrictsofthestudyarea.Fromthestudy,itwasobservedthatbuildingplanapprovalprovision,whichistheleastobservedprovisions,withameancomplianceof(6.16),hadaFratiolessthanthechosenlevelofsignificance,hencegivingtheresearcherthepowerofnegatingthenullhypothesisandarrivingattheconclusionthatthespatiallevelofcomplianceacrosstheresidentialdistrictsdifferssignificantly.TheresearcherrecommendedthathumanandmaterialresourcesneededforplanningLawenforcementactivitiesmustbeimprovedandequitablydistributedaccordingtospaceormeasureofneed,towardsensuringcompliancewithobtainingbuildingplansacrossresidentialdistrictsinthestudyarea.

Keywords: Calabar Built-UpAreas, Spatial Compliance, Compliance Classification, Planning Law/ Building Law,Quantitative Judgment, Legal Practitioner.

I. INTRODUCTION

Oneofthegreatestchallengesfacingtheworldtodayisdevelopmentandplanningcontrol.Intheirefffortstocurbtheproblem,governmentsofseveraldevelopingcountrieshaverisentotheglobalchallengebyprovidingLaws,undertheirrespectiveTownandCountryPlanninglaws,forthemaintenanceofawell-plannedandliveableenvironment.Takingacluefromherlonghistoryandevolutionoftheproblemsofgrossviolationstoprecedingurbandevelopmentcontrolschemes,theurbanandregionalplanningdecreeof1992(DecreeNo.88)waspassedintolaw(Sule,2003).

SeveralLawshavebeenmadeinviewofdevelopmentcontrolinCrossRiverState.OneofsuchLawsisthebuildingLawof1984,asamendedin1987.TheCrossRiverStateEnvironmentalSanitationEnforcement(UrbanArea)Law2003,andtheLandUseandAllocationActof1978areamongsttheothers.

ThefundamentalpurposeofbuildingLawsistoprovideforthehealth,safetyandwelfareofpeopleinandaroundbuildings(Oloyede,2010).ThelegislativeobjectiveofCrossRiverStateplanninglawunderconsiderationwastoensurealiveableenvironmentbyprovidingstandardsforapprovedbuildings,locationofbuildings,typesanduses,buildinglinesandsetbacks.OthersincludeLawsforspacesaroundbuildingstoallowconvenientareasforaircirculation,servicesandfacilities,builtupareas,sizeofrooms,dimensionofceilingheight,ventilationtoallowforaircirculation,drainageanddisposalsystem,andotherbuildingspecificationstowhichalloccupiers,usersandownersoflandareexpectedtocomply.ComplianceherereferstobuildinginlinewiththerequirementsoftheselectedprovisionsoftheCrossRiverStatebuildingLawof1984asamendedin1987.essentially,toensure,undertheLaw,compliancewithbuildingLaw,procurementofapprovedbuildingplanismadeaprecondition.Thisisprincipallybecausetobesafeandliveable,buildingconstructionsmustbedoneaccordingtoplan,withou

twhichtherecanbeguaranteeofstandardcomplianceastoallotherminimumrequirementsundertheLaw.Itisfeltthataltho
ughalltheprovisionsareimportant,explanationcanbeofferedwhyofall,onlyoneortwoaremostlyviolatedbydevelopers.
TheresearcherfindsthatnotwithstandingthegoodintentionsofthelawandtheeffortsoftheexistingTownPlanningDepar
tmentinCalabar,thespatialspreadofviolationstoapprovalrequirementpersistishigh,eveninthefaceofon-
goingdemolitionexercises.Thisstudy,therefore,investigatedthegeo-
spatialcompliancetotheleastobservedprovisionofthebuildingLawbyownersofbuildingsacrossResidentialdistrictsin
CalabarMetropolis

II. MATERIALSANDMETHODS

2.1Studyarea

CalabaristhecapitalcityofCrossRiverState.ThecityislocatedinthesouthernpartofCrossRiverState.Itliesbet
weenlongitude08^026EastoftheGreenwichmeridianandlatitude04^058Northoftheequatorandlongitude08^022East.Itha
satotalsurfaceareaof159.65squarekilometres.ItisboundedbythegreatQuaRiverandCalabarRiver.Calabarwasthefirst
cityinthethenEasternNigeria.Ithasremainedmorethan300yearsasanurbancentre(Offiong,2007).

Basedonthe1996populationprojection,thepopulationofCalabarwas379,605.Atthe2006Nigeriapopulationc
ensus,thepopulationhadgrownto461,796accordingto(GeoNames)GeographicalDatabase,makingitsgrowthratemor
ethan3percent.Thecityhadapopulationdensityof134/sqkmin1991andin2006,thepopulationdensityroseto293sqkmin
2006,obscuredtherathergravesituationinCalabar(NationalPopulationCouncil(NPC),2006).

At2016,thenumberofbuildingsonseparatestand/yardinCalabarMetropolisstoodat15,894,Nigeria'spopulati
onandHousingcensusdrawnfromthethirteen(13)metropolisresidentialareasbeingstudied.Asrightlyobservedby(Ebo
ng1983),housinghasbecomethethorniestproblemfacingitsinhabitants.inanattempttocontendwiththehousingproble
ms,housingarespringingupindisregardtotherequirementastobuildingplan,withattendantconsequencesonlandusepla
nning.Oneuniquecharacteristicsofthestudyareaisthatitiscontiguoustothecompletelybuiltareasinthemunicipalcapital
whetherornotthesebuiltupareascomplieswithgovernmentapprovalisanotherquestion.Agreaterpercentageofcomplet
edhousesaredonewithoutpriorconsiderationofaccesstoroads.However,itcanbeeasilyobservedthatmorethan50%ofdi
strictsalreadydesignatedasresidentiallocationsareyettobefullybuiltup.TheseincludesettlementsandsuburbssuchasIk
otEkpa,IkotEffiom,Eyamba,ObotOkoho,Bacoco,Awkada,AdebyoIkotOmin,Ekaobo,IkotNkebre,IkotEnobong,Ik
otOmin,IneUdo,NditoOkobo,IneAkpanUfana,IneUdo,allsurroundingthecompletelybuiltupareabuthinderedbyanea
rabsenceofaccessroads.

2.2typesofdataandsource

Thedatautilizedinthisstudywerebaseddataonthespatiallevelofcompliancewiththeleastobservedprovisiono
fthebuildingLawamongownersofbuildingacrosstheresidentialdistrict.Thesesetofdatawereneededsoastorelatebuildi
ngstructurestothelevelofcompliancewithbuildingLaws.
TheobservedprovisionsusedinthisstudywerebasedontenprovisionsasprovidedbytheCrossRiverStateBuildingLawo
f1984asamendedin1987,displayedin**Table1**.ThesesetofdatawereneededsoastorelateBuildingownerslevelofcompli
ancewithleastobservedprovisionoftheBuildingLaws.

Table1*ProvisionsoftheCrossRiverStateBuildingLaws,1984asamendedin1987usedforthestudy.*

S/N	Sections	LongTitle
1.	S.2(A)(4)	BuildingPlan:Buildingmustbewithapprovedbuildingplan
2.	S.5	Buildingline:Atleast12metersfromroadcentre.
3.	S.13(6)	Ceilingheight:Minimumdimensionsshallbe2.88meters
4.	S.6(3)	SetBack:Minimumpermissibledistancebetweenabungalowandotherbuildingnotlessthan4.5meters.
5.	S.7	Buildingsizerestrictions:Notmorethan50percentoflandsizeshouldbebuiltup.
6.	S.13(b)	Sizeoflivingroom:Shallbe12.96squaremeterswithwidthnotlessthan3.00meters
7.	S.16(3)	Heightofgroundfloor:Shallnotbelessthan0.15metersabovethelevelofadjacentground.

8.	S.19(1)(2)	Ventilation:Buildingsshallhaveadequatecrossventilationwithwindowssizenotlessthan $^1/_8$ oftheflowareaoftheroom.
9.	S.6(1)	Spacearoundbuildings:Aminimumdistanceof1.5metersshallbeallowedfromthepropertyboundariesnotfacinganyroad.
10.	S.13(d)	Corridordimension:Theminimumwidthshallbe1meter.

Source: CrossRiverStateBuildingLaws1984asamendedin1987.

2.3ProceduresforDataCollection

Thecollectionofdatawasestablishedusingsevenhundredandninetyfourquestionnaires(794)issuedtosevenhundredandninetyfour(794)respondents/ownersofthefivepercentofbuildingsonseparatestand,measuredwiththehelpofskilledfieldassistants.Aftermeasurementofeachvariables,theresearcherandhisfieldassistantsrecordedthedataonthecounterpartpartofthequestionnaireprovidedforthatpurpose.Thedatasoobtainedinthefieldwereusedfortheanalysis.ThepopulationofstudyismadeupofCalabarMetropolisResidentialbuildings/housesonseparatestandandtheirownersinthethirteenresidentialareasofCalabarMetropolis.Thereareabout15,894completedbuildingsonseparatestandsinthe13residentialdistrictsofthestudyarea.

Themeasurementofthebuildingswasdoneconsideringthe5percentofbuildingsonseparatestandselectedusingsystematicrandomsamplingtechniqueineachofthe13metropolisresidentialdistrictsthatmadeupthestudyarea.Copiesofthequestionnairewerediistributedtoownersofthebuildingsmeasured.Fromthestudy,outof794questionnairesadministered,742copiesofthequestionnairesrepresenting93percentweresuccessfullyretrieved.Thisnumberwasrepresentativeenoughforthestudy.Table2showstheresidentialdistrictsandnumberofbuildingsmeasuredintheStudyArea.

Table2*ResidentialdistrictsandnumberofbuildingsmeasuredintheStudyArea*

S/N	ResidentialDistricts	No.ofBuildings	No.ofbuildingsmeasured/questionnaireadministered.	QuestionnairesRetrieved.	Percentageretrieved(%)
1.	AkimQuaTown	2020	101	99	98
2.	EdibaQuaTown	1837	92	82	90
3.	BigQuaTown	2361	118	117	99
4.	EssienTown	1942	97	97	100
5.	IshieTown	2627	131	112	85
6.	IkotAnsa	1722	86	73	84
7.	UniversitySatelliteTown	750	38	38	100
8.	IkotEfa	414	21	18	85
9.	EsukUtan	204	10	10	100
10.	Ekorinim	441	22	22	100
11.	EsukAtu	240	12	12	100
12.	Nyangasang	720	36	36	100
13	EdimOtop	616	30	25	83
	Total	**15,894**	**794**	**742**	**93**

Source: 2006PopulationandHousingPopulationDataBank,Nigerian'sNationalPopulationCommission
Samplesize:Researcher'sFieldWork2016.

Thestudyutilizedamulti-
stagesamplingtechnique.Instage1,purposivesamplingofresidentialdistrictswasdone,tosatisfytheresearchers'desiretostudyonlybuildingswithinthemetropolisresidentialdistrictswhichareadjacenttothecompletelybuiltupareaintheCalabarMunicipality.ThedistrictssocapturedincludeAkimQuaTown,EdibaQuaTown,EssienTown,IshieTown,IkotAnsa,UniversitySateliteTown,IkotEfa,EsukUtan,Ekorinin,NyangasangandEdimOtop;secondly,tocaptureonlybuildingsonseparatestand/yard.Furthertypesofhousingunitsweresampled,theseinclude;informalimproviseddwelling(0.6percent),semi-etached(7.3percent),flatinblockofflats(10.4percent),TraditionalHutstructure(9.5percent),others(0.4percent).AtStage2,systematicsamplingwasdone.Asampleframewasdefinedforeachstreetattheintervalof20buildingsaccordingtothenumberofbuildingsonseparatestand/yardwithatargetofnotlessthan5percentinmind.Stage3involvedrepeatedsystem

aticsamplingindistrictswheretheminimum5percentwasnotmetatfirsttimeduetorepeatedabsenceoroutrightrefusaltoa
llowmeasurementorsupplyneededinformationbyownersofbuildingswithintheframe.

2.4DataAnalysis
ThetenprovisionsconsideredforthestudyareasprovidedbytheCrossRiverbuildingLaw1984asamendedin19
87.Theseinclude:Buildingline,Ceilingheight,BuildingPlan,SetBack,Buildingsizerestrictions,Sizeoflivingroom,He
ightofgroundfloor,Ventilation,SpacearoundbuildingandCorridordimension.Thecomplianceclassificationisshowni
ntheTable3.

Table3*Complianceclassification*

Compliance		
Meangrouping	Ranking	Classification
1–59.4	1	Poorest
59.5–79.4	2	Poorer
79.5–95.4	3	Poor
95.5–100	4	Good(Fullcompliance)

Source:Researcher'sFieldWork2016

Aone-
waymultivariateanalysisofvariancewasdone,withresidentialdistrictsasfactorandthetenprovisionsofthebuildingLaw
sasdependentvariables.Thisanalysissoughttoidentifythespatialcompliancewiththeleastobservedprovisionsofthebui
ldingLaw,acrossthe13residentialdistrictsofthestudyarea.Itinvolvedthecomputationofvariousdescriptivestatistics,v
ariancecomponentsandtestsforsignificanceutilizingthePilla'strace,WilksLambda,Hotelling'sTrace,Royslargestroo
t,theF-ratioandLSDteststatisticsinthegenerallinearmodelfromdataobtainedfromthefield.

II. RESULTS AND DISCUSSION
Todeterminethespatialcompliancewiththeleastobservedprovisionsoutofthetenprovisionsusedforthestudy,
descriptivestatisticswerecomputedforthetenprovisionsofthebuildingLawsineachofthethirteendistributionofthestud
yarea.ResultsarepresentedinTable4-
5.Table4givesthesummaryoftheresults,mean,standarderrorofestimateandconfidenceinterval(95percent).
BasedontheresultfromtheTable4below,theresearcherfindsthatbuildingplanapprovalprovisionwasthebuildingLawp
rovisionwiththelowestmeancompliance(6.16),meaningthattheLawprescribingthatbuildingplanmustbeapprovedbef
orecommencementofanybuildingwastheleastobservedprovision(5.999<x<6.331).Themostobservedprovisionofthe
lawhowever,wasLaw3(b)sizeoflivingroomprescriptionwithameancomplianceof9.423estimates(0.059).Thedescrip
tivestatisticsforthetenprovisionsofthelawforthe13districtsarepresentedinTables4and4.1.

Table4_MeanandStandardErrorofthetenprovisionsoftheBuildingLaw_

BuildingLaws	Mean	Std.Error	95percentConfidenceInterval LowerBoundUpperBound	
BuildingplanapprovalS.2(A)(4)	6.165	.085	5.999	6.331
	8.145	.103	7.943	8.347
Buildingline	8.999	.073	8.855	9.143
S.5	7.928	.117	7.699	8.158
Ceilingheight	9.316	.059	9.200	9.432
S.13(6)	8.065	.093	7.882	8.249
Builtuparea	8.233	.097	8.043	8.423
S.7	7.859	.088	7.686	8.032
Sizeoflivingroom	8.940	.073	8.797	9.083
S.13(B)	8.757	.123	8.515	8.999
Heightofgroundfloor				
S.16(3)				
Setback				
S.6(3)				
Ventilation				
S.19(1)(2)				
Spacearoundbuildings				
S.6(1)				
Corridordimension				
S.13(d)				

Dependentvariable:LevelofcompliancewithbuildingLaws
Source:Researcher'sfieldwork,2016

TheTable4.1belowcontainstheresultforthepreliminarymultivariatetest

Table4.1_PreliminarymultivariateTest_

Effect	Test	Value	F	Hypothesisdf	Error df	Sig
Intercept	**Pilla'sTrace**	.986	5127.142a	10.000	720.000	.000
	Wilks'Lambda	.014	5127.142a	10.000	720.000	.000
	Hotelling'sTrace	71.210	5127.142a	10.000	720.000	.000
	Roy'sLargestRoot	71.210	5127.142a	10.000	720.000	.000
District	Pilla'sTrace	1.355	9.523	120.000	7290.000	.000
	Wilks'Lambda	.201	10.733	120.000	5602.705	.000
	Hotelling'sTrace	1.940	11.612	120.000	7182.000	.000
	Roy'sLargestRoot	.701	42.570	12.000	729.000	.000

Extractstatistic
ThestatisticisanupperboundonFthatyieldsalowerboundonthesignificancelevel.
Design:Intercept+district.
Source:Researcher'sfieldwork,2016
InordertotestforthelevelofsignificanceforthespatialcompliancewiththeleastobservedprovisionsofthebuildingLaw,a
onewaymultivariateanalysisofvariancewasthenconductedbytheresearcher.TheTable5belowgivestheANOVAsum
maryofthespatialcompliancewiththetenbuildingLawprovisions.

Table5ANOVASummaryForTheSpatialComplianceWithTenBuildingLawProvisions.

Source	DependentVariable	TypeIIIsumof Squares	Df	MeanSquare	F	Sig
Corrected Model	Buildingplanapproval	931.728a	12	77.644	28.323	.000
	Buildingline	989.916b	12	57.243	14.148	.000

	Ceilingheight	218.423c	12	18.202	8.847	.000
	Builtuparea					
	Sizeoflivingroommeasured					
	Ventilation					
	Distancefrombuilding tofence					
Corrected Model	Buildingplanapproval	1113.787d	12	92.816	17.754	000
	Buildingline	297.280e	12	24.773	18.561	.000
	Ceilingheight	657.044f	12	54.754	16.410	.000
	Builtuparea	528.140g	12	44.012	12.261	.000
	Sizeoflivingroom measured	231.368h	12	19.281	6.477	.000
	Ventilation	257.655i	12	21.471	10.655	.000
	Distancefrombuilding tofence	607.141j	12	50.595	8.683	.000
Intercept	Buildingplanapproval	14529.581	1	14529.581	5301.791	.000
	Buildingline	25361.163	1	25361.163	6268.128	.000
	Ceilingheight	30956.748	1	30956.748	15046.882	.000
	Builtuparea	24029.502	1	24029.502	4596.380	.000
	Sizeoflivingroommeasured	33181.892	1	33181.892	24861.540	.000
	Ventilation	24866.673	1	24866.673	7452.553	.000
	Heightofgroundfloor	25912.188	1	25912.188	7218.488	.000
	Setback Ventilation	23611.769	1	23611.769	7931.809	.000
	Distancefrombuilding tofence	30554.178	1	30554.178	15162.122	.000
	Corridordimension	29315.530	1	29315.530	5031.281	.000
District	Buildingplanapproval	931.728	12	77.644	28.332	.000

	Buildingline	686.916	12	57.243	14.148	.000
	Ceilingheight	218.423	12	18.202	8.847	.000
	Builtuparea	1113.787	12	92.816	17.754	.000
	Sizeoflivingroommeasured	297.280	12	24.773	18.561	.000
	Ventilation	657.044	12	54.754	16.410	.000
	Heightofgroundfloor	528.140	12	44.012	12.261	.000
	Setback Ventilation	231.368	12	19.281	6.477	.000
	Distancefrombuilding tofence	257.655	12	21.471	10.655	.000
	Corridordimension	607.141	12	50.595	8.683	.000
Error	Buildingplanapproval	1997.828	729	2.741		
	Buildingline	2949.571	729	4.046		
	Ceilingheight	1499.810	729	2.057		
	Builtuparea	3811.153	729	5.228		
	Sizeoflivingroommeasured	972.973	729	1.335		
	Ventilation	2432.429	729	3.337		
	Heightofgroundfloor	2616.889	729	3.590		
	Setback Ventilation	2170.120	729	2.977		
	Distancefrombuilding tofence	1469.055	729	2.015		
	Corridordimension	4247.630	729	5.827		
Total	Buildingplanapproval	35061.802	742			
	Buildingline	53142.931	742			
	Ceilingheight	62412.806	742			

	Builtuparea	50069.468	742
	Sizeoflivingroommeasured	66897.121	742
	Ventilation	56444.107	742
	Heightofgroundfloor	56405.410	742
	Setback Ventilation	47615.776	742
	Distancefrombuilding tofence	62182.985	742
	Corridordimension	63116.361	742

CorrectedTotal	Buildingplanapproval	2929.556	741
	Buildingline	3636.487	741
	Ceilingheight	1718.233	741
	Builtuparea	4924.940	741
	Sizeoflivingroommeasured	1270.253	741
	Ventilation	3089.473	741
	Heightofgroundfloor	3145.029	741
	Setback Ventilation	2401.488	741
	Distancefrombuildingtofence	1726.710	741
	Corridordimension	4854.772	741

Rsquared=.318   (AdjustedRsquared=.307)
Rsquared=.189   (AdjustedRsquared=.176)
Rsquared=.127   (AdjustedRsquared=.113)
Rsquared=.226   (AdjustedRsquared=213)
Rsquared=234   (AdjustedRsquared=221)
Rsquared=213   (AdjustedRsquared=.200)
Rsquared=.168   (AdjustedRsquared=.154)
Rsquared=.096   (AdjustedRsquared=.081)
Rsquared=.149   (AdjustedRsquared=.135)
Rsquared=.125   (AdjustedRsquared=.111)
Source:ResultofDataAnalysis,2016

From the results of Table 5, it was observed that in the case of building plan approval provisional ready identified as the least observed provision of the law, the p-value (0.000) associated with the computed F-value was less than the chosen level of significance. The null hypothesis was thus rejected. This means that the spatial level of compliance with the least observed building Law provision, especially the building plan approval, varied significantly across residential districts in the study area.

To identify which pair of means (by residential district) was responsible for the observed significant result, a pairwise multiple comparison Tests were further carried out. Since the researcher's interest was on spatial compliance to the least observed provision, the results were extracted for this variable (building approval status).

From the analysis is carried out by the researcher on the pairwise comparison, shown in Table 6, it was observed that in terms of building approval status, district Akim Qua Town was significantly different from Big Qua Town, Ishie Town, Ikot Efa, Esuk Atu, Nyanasang and Edim Otop. Ediba Qua Town was significantly different from Big Qua Town, Ikot Ansa, Ikot Efa, Esuk Atu, Nyanasang. Edim Otop was significantly different from all others except Esuk Atu residential district; similarly, Nyanasang district was significantly different from all others except Esuk Atu district. There is no significant difference between district Esuk Atu and Ikot Efa, Nyanasang and Edim Otop. The next outstanding district is Ikot Efa district which is significantly different from all others except Esuk Atu and Edim Etop. All other differences are as indicated.

Table 6 Pairwise comparison of compliance with building plan approval
Status, by Residential Districts

District	Akim Qua Town	Ediba Qua Town	Big Qua Town	Essien Town	Ishie Town	Ikot Ansa	University Satellite Town	IKot Efa	Esuk Utan	Ekorinim	Esuk Atu	Nya nsang	Edim Ot op
Akim Qua Town	-	0.09	1.24	0.31	0.10	0.75	0.18	3.03	0.31	0.14	3.02	3.99	2.18
Ediba Qua Town	0.09	-	1.34	0.22	0.19	0.84	0.09	3.12	0.22	0.05	3.11	4.08	2.27
Big Qua Town	1.24	1.34	-	1.56	1.15	0.49	1.43	1.79	1.56	1.39	1.78	2.75	0.94
Essien Town	0.31	0.22	1.56	-	0.41	1.07	0.13	3.34	0.00	0.17	3.33	4.31	2.50
Ishie Town	0.10	0.19	1.15	0.41	-	0.66	0.28	2.93	0.41	0.24	2.92	3.89	2.09
Ikot Ansa	0.75	0.84	1.49	1.07	0.66	-	0.94	2.28	1.07	0.89	2.27	3.24	1.43
University Satellite Town	0.13	0.09	1.43	0.13	0.28	0.94	-	3.21	0.13	0.04	3.20	4.17	2.35
Ikot Efa	3.03	3.12	1.79	3.34	2.93	2.23	3.21	-	3.34	3.17	0.01	0.96	0.85
Esuk Utan	0.31	0.22	1.56	0.00	0.41	1.07	0.13	3.34	-	0.17	3.33	4.31	2.50
Ekorinim	0.14	0.05	1.39	0.17	0.24	0.89	0.04	3.17	0.17	-	3.16	4.13	2.32
Esuk Atu	3.02	3.11	1.78	3.33	2.92	2.27	3.20	0.01	3.33	3.16	-	0.97	0.84

Nyanas ang	3.99	4.08	2.75	4.31	3.89	3.24	4.17	0.96	4.31	4.13	0.97	-	1.81
EdimO top	2.18	2.27	0.94	2.50	2.09	1.43	2.35	0.35	2.50	2.32	0.84	1.81	-

Significant at 0.05 levels. P<0.05
Source: Result of data Analysis, 2016

III. CONCLUSION/JUDGMENT AND RECOMMENDATION

Interestingly, the level of variation in compliance regarding the requirement as to building plan was significantly different across the study area, which also, as in the case of all the regulations put together requires different levels of approaches in dealing with the problems as no two residential districts are the same.

The analysis of data based on the target objective represents the spatial level of compliance with the least observed provision of the building Law among owners of building across the Residential Districts of Calabar Metropolis. Solutions which will generally mediate the difference in the spatial compliance with building law provisions especially the provision on building approval plan will be vital. This will be imperative in order to enhance the spatial level of compliance with building regulations in Calabar, occasioned by the present level of compliance of building owners with approved plan requirements. Based on the quantitative finding, both plan approval and site inspection have a significant effect on compliance with the law in the study area, It is also recommended that before any construction work is commenced, the owner should apply in writing to the authority for official inspection first to ensure there is an approved plan and secondly to ensure building is in line with the approved plan. Failure to do so should also be inserted into the law as an offence punishable by a suspension order of not less than one year. Failure on the part of the authority should also be considered under the law as a breach of duty. For effective implementation of these recommendations, the state government should recruit more staff into the enforcement unit of the Town Planning Department to help brace up with the envisaged challenge of shortage of staff in this area.. As a result, it is recommended that a certificate of site inspection and a clean bill of compliance at the foundation, DPC, windows and roof levels should be part of building documents to be issued by the authority.

A very important measure to use in ensuring compliance with approved plan is to ensure that professionals handle building projects in the study area. In collaboration with the Nigerian Council Calabar Chapter, the Town planning Authority can rise to the occasion by ensuring that buildings have approved plan and that only trained builders should supervise approved buildings. This can be achieved by insisting that approved plan should be accompanied with not less than three registered trained builders, one of whom shall eventually be selected by the developer-owner to supervise the building construction. Owners of buildings who fail to comply with the directive can be penalised by imposing a punitive fine to serve as a deterrent to other developers. The builder council should be made to realize that apart from the fact that it is loss of revenue to their accredited members, it is also loss of credibility to the profession if it lacks the will to enforce best practice in the field.

The enforcement unit of the Planning Departments should be saddled with the responsibility of ensuring that the supervision is actually done by one of the named registered builders. This can be achieved by the task force paying a surprise visit to the sites.

On the parts of the registered builders, responsibility for compliance should be placed on them. So that apart from demolition of buildings, when there is a gross violation, the building supervisor can be penalized also. Depending on the level of violation, the penalty can range from fine, suspension of practice for a certain period to outright withdrawal of license. By these stringent measures the supervisor will not be able to transfer the blame to the owners of the building for not making available, enough funds, or for not supplying standard materials. By this measure also, the supervisor would have been co-opted into quasi-enforcement by being expected to report erring owners of building to the Town Planning Authority.

Since the findings also revealed that construction sites that were visited and inspected by the Town Planning Inspectors tended to comply more than those that were not inspected, it is recommended, therefore, that more regular visits to construction sites should be encouraged as it is done with the judiciary officers to enhance effective and speedy dispensation of justice, a system of returns in which cases successfully determined by Judges are recorded or reported as a basis for promotion, should be adopted for enforcement officials of the town planning department. Visits to construction sites at least thrice before completion of buildings should be an additional condition for promotion for officers of the enforcement units. This judgment will apparently serve as an incentive to government site inspectors who should naturally work hard for their promotion.

Furthermore, the job of regular inspection to construction sites should be left in the hands of specialised professionals, to be officially referred to as "site inspectors". These sites inspectors should be professionals who should be given special oath of office to ensure effective and uncompromising discharge of their duties. And to complement the present workforce, more graduates professionals should be employed as site inspectors. If the work of enforcement is to be accorded its deserved importance, Government should vote more funds to enforcement activities. This should begin with by ensuring plan appr

oval,embarkingonregularsitevisitsandinspection.Thisisthejudgmentandrecommendationofthisresearcherifcomplia ncewithBuildingLawinthestudyareaistobeimproved.

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