



**SDI Review Form 1.6**

Journal Name:	<a href="#">Physical Science International Journal</a>
Manuscript Number:	2014_PSIJ_9211
Title of the Manuscript:	URBAN SPRAWL ANALYSIS AND TRANSPORTATION USING CELLULAR AUTOMATA AND MARKOV CHAIN
Type of the Article	Original Research Article

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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**PART 1: Review Comments**

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<b>Compulsory</b> REVISION comments	<p><b>Abstract is not adequate. The scope of paper, methods used in acquiring/analysing data, major findings should have been clearly outlined. Also observed changes should have been discussed before the highlighted projection and the effects of transportation should have been discussed in the abstract</b></p> <p><b>The objectives of the study are great but were not fully carried out. We have them in Lines 45 -49 . following the objective to unfold the available greenbelts and arable lands.....the author should have included that as part of the landcover in the classification scheme to map that out. That of transportation, check line 37-39. Was the transport system mapped?(please crosscheck your objectives to be sure they are all carried out)</b></p> <p><b>The analysis is good but loose ends should be tied such as</b></p> <ul style="list-style-type: none"> <li>• The type of classification used</li> <li>• There is supposed to be an overlay as well as a change trend analysis between 1984 and 2006 which was omitted.</li> <li>• Based on line 271 when do we know rates are reduced or increased from figures in table 4? Explain the rates.</li> <li>• MOST importantly, maps, charts and analysed imagery in GIS are very important</li> </ul>	<p>This claim by the reviewer was not true, scope of the paper was described (urban sprawl determination in three (3) LGAs of Lagos State between 1984 and 2006); methods adopted were discussed (LCR and LAC were used, Landsat Imageries of 1984, 2000 and 2006 were processed, classified and analyzed, and CA-Markov model was used to predict for 2020); observed changes was mentioned (Built-up Areas will increase from 8.76% to 17.60% of the Land use/land cover i.e. continuous urban sprawl in future) and the effects of urban sprawl on transportation and vice-versa were discussed). This is an abstract.</p> <p>Reclassifying will change the whole result, therefore, unfold the available greenbelts and arable lands for Peri-urban farming and food production has been removed. Urban sprawl and its effects on transportation networks has been mapped.</p> <p>Supervised classification was carried out. From Table 3, Gain in Built-Up Area for 1984-2000 and 2000-2006 were computed. Therefore, a change trend analysis between 1984 and 2006 can easily be obtained. Repeating answers that follow the same pattern may be more of repetition.</p>

Comment [O1]: Removed.



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	<p>as they speak for themselves before explanations are made but unfortunately yours which are a key component of this work are not legible and can't be read. Please expand them as leaving them as they are wont do your valuable research justice.</p> <ul style="list-style-type: none"> <li>• Eko Atlantic city project is a year after study year, this raises questions of when research was done because there is no mention of the exact year of study which would have helped in giving us direction on issues. That omission made me think the research was done before the new developments of Eko Atlantic city and other landmarks of the this and the last administrations in Lagos. You may need to address that since the last imagery used in your research is that of 2006 which is about 8 years ago and a lot most have been done.</li> <li>• Also as earlier stated, there is no analysis on the transportation component of the research. Highlighting consequences of sprawl on transport is not sufficient. I thought you carried out an analysis for this component which would have explained how growth/sprawl impacted on movement. Sprawl should have a major link to transport as Lagos is known for traffic congestion. Identifying the direction of sprawl and where commercial activities dominate would lead you in the direction of what advice to give policy makers on best routes and transport networks. Closely related is the lack of maps</li> </ul>	<p>Tables 4 and 5 have been explained.</p> <p>We were trying to minimized the number of pages but we have worked (expanded) on the images.</p> <p>This research was carried out in November 2011 and the study covers between 1984-2006. We could not obtain clear images of the study area after 2006. We stated that: "the 2007 to 2010 versions have stripes that make them unfit for use in this study". Eko Atlantic city project was before this research.</p> <p>Traffic data as at 1984 was not available, but the urban sprawl and its consequent increased in road network as carried out in this study has been added.</p>
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	<p>or images showing this component.</p> <p><b>In wrapping up on analysis you may need to corroborate findings with previous work done on the subject matter providing conceptual basis for field observations in line with existing literature and in depth professional knowledge on subject.</b></p> <p><b>In your conclusion, you may need to provide overview of the work done and key findings. Link findings with previous works in Nigeria or elsewhere. Identify the policy implications/ dimension of the work.( conclusion not sufficient and should be supported with data)</b></p> <p><b>Reference not adequate.</b></p>	<p>Urban sprawl mapping is not a new phenomenon, even recent research by Ajoke Onojeghuo &amp; Alex Onojeghuo (2013) among other researchers agreed with our findings.</p> <p>This was carried out: overview of the work done (summarized in the first paragraph) and key findings (summarized in the second paragraph). Link findings with previous works in Nigeria or elsewhere. Identify the policy implications (policy issues were identified and recommended in the third [3<sup>rd</sup>] paragraphs).</p> <p>This is an extract of the whole research. Therefore, siting references on those areas removed will not be ideal. Though the references are now 18 but we believed that citing 15 References that cut across 1976 – 2011 (about 35years) is sufficient for a good work.</p>
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<p><b>Minor</b> REVISION comments</p>	<p>Line 43-44 prediction was made over the next 10 years. From which year was this done? 2006 to 2020 is not 10 years</p> <p>Line 87-92 Reasons for none usage of imagery is not necessary and should be removed.</p> <p>Line 94 Based on the adjustment, the description of the study area should reflect same to give it an accurate location of study area</p> <p>Line 168 and 154, Zubair isn't the author of the formulas so it would be good to quote where Zubair quoted from except if he didn't state clearly.</p> <p>Line 186 Should read <i>Ujoh et al</i></p> <p>Line 189 As at 1984 should be cancelled same with line 213 and 238.</p> <p>Line 216 of the study area which comes after figure 39.59% should be removed.</p> <p>Line 328-331 and line 466-467 has no reference( who is the authority behind the assertions)</p> <p>Line 380 explain further what you mean by the two land covers being the greatest.</p> <p>Line 381 grow to instead of have grown</p>	<p>This has been corrected. It was a mistake.</p> <p>This was to show that we would have love to capture the new urban sprawl areas after 2006. We have removed reasons given.</p> <p>We have more than three (3) pages on the study area, but since a manuscript is an abstracted version of the main work, therefore, we have summerized the work.</p> <p>From Zubair's work, he claimed to be the author of these formulas. Ujoh and two other authors are not et al.</p> <p>Removed Removed</p> <p>Removed. For line 466-467, Ontario College of Family Physicians (2005) on the Health Impact of Urban Sprawl was the author. <b>Line 380</b> We think this is a clear statement i.e. in 2020 water bodies and vegetal cover are expected to have the highest coverage than others, 38.81% and 31.84% respectively.</p>
<p><b>Optional/General</b> comments</p>	<p>Fig 10 should be removed</p> <p>Line 372 is not necessary Remove line 509. References should not be numbered except if acceptable by journal Maya 2008 appeared as a reference in the work but is not cited in the reference section.</p>	<p>Removed</p> <p>Removed Removed We have conformed to the journal format.</p> <p>Sorry, it was an oversight. It has been included.</p>



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	<p>Your references are more of GIS Software manuals. I will advice you check a few of Prof Akin Mabogunje's books or works that are relevant to your research. He is a renowned urban geography whose work I believe can assist your research.</p>	<p>This is not true. GIS software is only one, Wilkipedia is only one, all others are authors out of which seven (7) are local (i.e. Nigerian) authors.</p>
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